

## SECTION-1. Features of the Norwegian Vocational Education and Training

### 1.1. A snapshot of the vocational education and training system

Nearly all the students who leave lower secondary school enter upper secondary education. Around half choose one of three general academic programmes, the other half follow one of nine vocational programmes (Utdanningsdirektoratet, 2007). The statutory right to education guarantees that the students who are 15 years old and having completed both primary and lower secondary education have the right to three years of upper secondary education in one of the three programmes of their choice out of the 12 available. Upper secondary education, including VET and vocational technical colleges, are the responsibility of the 19 Norwegian counties. County authorities receive a lump sum covering all central government expenditure on the primary and secondary school education, health services (except hospitals) and culture. Hence, education in public institutions is provided free of charge at all levels. With few exceptions, public upper secondary schools offer both general education and VET, and 95% of upper secondary students attend public schools. The private sector caters mainly to students in their general programmes.

The standard model for upper secondary VET, often described as 2+2: two years in school followed by two years of apprenticeship in a company. If a student has finished the two-year school VET programme and cannot find an apprenticeship, the student must be offered a third year of practical training in school, although relatively

few students make this choice. Both an apprenticeship and a third year of practical training in school lead to the same vocational qualifications. Around one third of students who finish the two-year VET school programme opt for a third year in a general programme. The upper secondary VET students who wish to enter university need to take a supplementary year after completing their vocational studies, while the students with VET qualifications may move directly to vocational technical colleges (Teknisk Fagskole). First year in upper secondary VET provides general education and introductory knowledge of the vocational area. During second year, VET students choose specialisations, and the courses become more trade specific. Then, the two-year apprenticeship takes place with an employer (employers) and follows a national curriculum. Legally, apprentices are employees of the enterprise, with conditions specified in a contract that is signed by the student, the company, and the county. Apprentices receive a wage negotiated in collective agreements that ranges from 30 to 80% of the wage of a qualified worker, the percentage increasing over the apprenticeship period. Employers taking on apprentices receive direct subsidies from the county. The basic subsidy is EUR 12 000 per apprentice/trainee. This covers the two years of the apprenticeship and is equivalent to the cost of one year in school. In addition to the basic subsidy, the training company receives up to EUR 5000 per trainee in traditional crafts, such as goldsmith.

Training Offices (opplæringskontor) are owned by companies and usually relate to specific trades. They work actively to identify possible new training companies and establish new apprenticeship places, supervise companies with apprentices, and train the staff involved in the tutoring of apprentices. Many training offices organise the theoretical parts of the apprentices' training. They often sign the apprenticeship contracts on behalf of the smaller training enterprises, thereby becoming accountable for completion of the

training and its results (Norwegian Directorate for Education and Training, 2008). Upper secondary VET ends with a final exam which leads to the craftsman/journeyman certificate. The examination is prepared and assessed by a trade specific examination board appointed at the county level. Students who receive a third year of practical training in school are the least successful candidates (Utdanningsdirektoratet, 2007). Social partners participate actively in the development of VET policies at all administrative levels. The National Council for Vocational Education and Training advises the Ministry of Education on the general framework of the national vocational education and training system. The Advisory Councils for Vocational Education and Training are linked to nine vocational education programmes provided in upper secondary education; they advise national authorities on the content of VET programmes and future skill needs. Whereas the local county vocational training committees (yrkesopplæringsnemnd) advises on the quality, the provision, career guidance and regional development in VET.

A training enterprise with apprentices must appoint qualified training supervisor and one or more trainers. How training is conducted varies between enterprises, but other employees in the enterprise are often involved in the training. Training enterprise must be able to document how the training is planned, organised and assessed to ensure that all the apprentices can develop the necessary skills and competencies. These skills are not assessed by testing and grading, but rather through continuous evaluation by the enterprise and at two meetings a year between the trainer (instruktør) and the apprentice. Training supervisors (faglige ledere) in enterprises or other workplaces with apprentices must ensure that the training meets the requirements stipulated in the Education Act. They must have one of the following qualifications:

1. a trade or journeyman's certificate in the relevant trade or craft.

2. master craftsman's certificate in the relevant craft.
3. relevant higher education in the trade or craft.
4. adequate educational background in the parts of the trade which, according to the curriculum, will be taught in the enterprise. Or
5. six years of experience in the trade or craft.

Trainers (instruktører) in training enterprises are vocationally skilled, often with a formal vocational qualification. But They are not required to hold a teaching certificate. Some trainers do not hold formal qualifications in their vocational skills but have instead developed them through their work experiences. Formal regulations simply state that the management of the training enterprise must ensure that trainers have "the necessary qualifications" (Education Act). And a result, the Norwegian vocational education and training system has many strong points:

- a. There is strong tripartite cooperation at the national level, where the social partners play a very active (typically leading) role in policy development, as well as at regional (county) and sectoral levels.
- b. The VET system is supported by a high level of trust among stakeholders: the current 2+2 system was developed in close collaboration with the social partners and commands their support.
- c. By international standards there is little stigma attached to VET tracks in upper secondary education: the system is relatively inclusive and there is little tendency for the VET programmes to be used as weaker tracks for the less able.
- d. The VET system is underpinned by an exceptionally tight labour market, which means that employers are willing to work hard to attract apprentices.

## 1.2. A school and apprenticeship-based vocational education and training system

Vocational Education and Training in Norway is part of the formal education and training system, and it is mostly provided as a combination of school-based and apprenticeships with apprentices having employment contracts and being paid for their work. It starts at upper secondary level through two main models: a **2 + 2 model** (two years in school and two years of apprenticeship training) leading to a trade or a journeyman's certificate at EQF level 4; and a **3-year school-based model** leading to professional competence qualification at EQF level 3. At the national level, approximately 42 per cent of the learners do choose a vocational programme. Most of the learners are in the age group 16-18 years and there are more male than female learners in VET both at upper secondary level and post-secondary VET. At upper secondary level, Norway has a long-standing tradition of close national and regional cooperation between education authorities and the social partners. National cooperation is organised in the National Council for vocational education and training (Samarbeidsrådet for yrkesopplæring-SRY), nine vocational training councils (Faglige råd), one for each programme area, and the national appeal boards (Klagenemnder). Regional cooperation involves county vocational training boards (Yrkesopplæringsnemnder) and examination boards (Prøvenemnder). Tripartite cooperation aims to ensure training provided to the Norwegian VET learners meets labour market and skill needs. It informs changes in the VET structure, curriculum development, regional structure and volume of the VET provision, the framework of examinations leading to trade or journeyman's certificates, and the quality control at all levels. Norway has a unified education structure with VET integrated as an equal to general education in upper secondary education. Most education at

this level is provided by public schools. Since learners have a right to attend upper secondary education, most choose to do so. Learners are entitled to upper secondary education and have the right to enrol in one of the learner's top three choices.

To meet the requirements for more advanced occupation-specific practices and broader competences such as teamwork, learners' communication skills or social capabilities, which are relevant for workplaces in general (OECD Citation 2015), the Norwegian vocational education and training has been restructured to offer dual theoretical and practical education programmes. Hence, this dual approach has three aspects: *(1). a combination of theoretical and practical content; (2). a combination of the skills that enable the combination of VET with general studies, which can be built on when applying for higher education; and (3). cross-sectoral arrangements with alternation between classroom and workplace throughout the school year.* This dual approach of practical and theoretical content was initially supported by initiatives introduced during the European Union's (The EU) Lisbon Conference on Education in 2000 as a strategy to improve the reputation, quality and number of applicants to VET programmes across Europe (Leney and Green Citation 2005; European Commission Citation 2013). Therefore, according to the EU, strengthening the collaboration between schools and industry for education programmes is a method for increasing the competitiveness of industries. Since then, similar debates arose in the Norwegian vocational education and training, reflecting how industry stakeholder organisations and the national governments had claimed that there were national structural deficits in the skilled labour with the upper secondary school vocational training (Meld. St. 20. 2013; Industrirådet 2014). And both bodies have maintained that such deficits have been particularly evident in specialised technological and blue-collar manufacturing skills. A lack of appropriate labour is a capacity issue that significantly hinders dynamic socio-economic development. Hence, this background is

also important to the debate on how the vocational education and training can compete for resources, gain attractiveness, or be combined with programmes of higher theoretical content.

### 1.2.1. Quality of vocational education and training in the context of national objectives.

Vocational education and training delivered in Norway should play an important role in engaging and retaining learners and in preparing the learners for a labour market that has a strong demand for skilled workers. These aims are interlinked and cannot and should not be separated. Both are important, and neither should be prioritised, contrary to the views of some stakeholders. In Norway, there are two models for Vocational education and training programmes: (1). **theoretical and practical vocational training with an apprenticeship**; and (2). **The theoretical, vocational, and general subjects with an apprenticeship**. The first model is by far the largest with close to 38,000 apprenticeship contracts (including all education categories), whereas the second model includes local initiatives that account for 1591 contracts (Statistics Norway 2014). The goal of these models is to meet the four main objectives presented in the tertiary vocational education report. The objectives refer to factors that are central to ensuring good quality in vocational education and training:

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.

### 1.2.2. Measures for students' engagement and success in vocational education and training.

Students' engagement and success within vocational education and training in Norway, in various ways based on the VET students well-being, living conditions, and learning environment which are the 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 students engagement and success in vocational education and training is emphasised as the important element regarding quality of vocational education and training in Norway. Measures related to students' engagement and success do largely support a student-centred perspective on the concept of quality, considerable emphasis is placed on the student participation and results. Another important factor that supports students' engagement and success in vocational education and training in Norway, are incentives for learners such as providing salary to

students during apprenticeship training. The apprenticeship scheme is a critical component of the upper secondary 2+2 model where there is a regulated salary during an apprenticeship training period which is a financial incentive to promote the learner participation in VET. The salary for apprentices constitutes a given percentage of initial salary of a worker with a craft certificate in the relevant vocation. The salary is increasing throughout the apprenticeship. For apprentices following the main model (2+2) the salary will be calculated as follows: **1st half of the years in an approved training company:** 30 percent of the initial salary. **2nd half:** 40 percent of the initial salary. **3rd half:** 50 percent of the initial salary. **4th half:** 80 percent of the initial salary.

In addition, there are grants and loans for learners. The main purposes of the Act relating to the Learner Grants (Lov om utdanningsstøtte) of 1985, most recently amended in 2015, are to: (1). improve equity in access to education and training regardless of geography, gender, age, social background. (2). improve learning environments and enable learners to study more effectively. And (3). ensure a qualified workforce for society at large. Learner loans carry no interest charges during the period of study. All registered learners participating in the formally recognised study programmes at both public and private institutions of higher education may receive grants and subsidised loans from the Norwegian State Educational Loan Fund (Statens lånekasse for utdanning). The learners in upper secondary school-based VET (the learners and apprentices alike) may qualify for the grants or subsidised loans from the Norwegian State Educational Loan Fund subject to a needs-based assessment. They may receive relocation grants if they have to move away from home to attend school or the enterprise-based training and they are also entitled to support from the Norwegian State Educational Loan Fund. Support to learner at upper secondary level is mainly provided in the form of grants.

Moreover, there are incentives for enterprises to boost their participation in VET provision. The apprenticeship scheme is a critical component of the upper secondary VET 2+2 model. After two years of school-based education, most VET programmes involve a two-year apprenticeship in a training enterprise. This period is equivalent to one year of practice-based training and one year of productive work for the training enterprise. During the first year as an apprentice with practice-based training the enterprise focuses on teaching. There is no expectation of profit-making. The second year with productive work is expected to be profit-making for the company. After two years in school, the apprentice signs a legally binding apprenticeship contract with the training enterprise and a representative from the county authorities. By law, apprentices are employees of the enterprise, with the rights and obligations that follow. They are entitled to a salary that increases with the apprentice's productivity during the two-year apprenticeship period. Salary increases normally start at 30% and increase to 80% of a skilled worker's salary. All training enterprises receive a state grant of approximately EUR 15 000 per apprentice for a 12-month's training period. The grant covers the training period only, not the productive component. The grant is distributed evenly throughout the apprenticeship period in the company. The grant is supposed to cover costs related to training the apprentice. Additional grants are given to enterprises either for offering apprenticeships in rare and protected crafts or for accepting apprentices or training candidates with special needs.

### 1.2.3. Measures related to validation of prior learning in vocational education and training.

Validation of prior non-formal learning is possible in all levels of education and training in Norway and can be used to acquire modules and/or full qualifications. There are laws and regulations in place relating to each level of education and/or training, providing a

general framework for the validation of prior learning. The Norwegian system of validation is based on shared principles across all sectors; one of these principles is that the validation process should be voluntary and of benefit to the individual. The difference in funding and governance mechanisms found in the primary, upper secondary, post-secondary vocational and higher education affect the preconditions for setting up the validation procedures. The sectors of education have developed schemes for validation of prior non-formal learning according to their specific needs and preconditions. Higher education institutions exercise the greatest freedom in both the design and the delivery of validation because the responsibilities are devolved to each institution. This also concerns post-secondary VET. However, national government and its underlying administrations provide guidelines for all educational sectors.

During autumn of 2013, the Norwegian Directorate for Education and Training, in cooperation with the other stakeholders from the sectors, developed national guidelines relating to adults who claim the right to have their formal, non-formal and informal learning validated compared to lower/upper secondary level. The guidelines focus mainly on how to interpret the regulations relating to validation and how to implement the different points that are described in the regulations. So, the purpose of the national guidelines for validation is to ensure that sound validation procedures are carried out, leading to similar practices in Norwegian counties and municipalities. By providing a national basis for local practice, the guidelines spur confidence and legitimacy of validation practices. It is possible to acquire a full qualification on the basis of validation in the Programme for General Studies in upper secondary education (university-preparatory). In upper secondary VET it is necessary to take the relevant final examination to achieve a journeyman's certificate as a skilled worker. In higher education, individuals can gain exemptions for parts of study programmes. On

the diploma as well as on the Diploma Supplement, the relevant courses and credits will be identified as having been obtained through validation.

In post-secondary VET, possibility to give exemption from courses and modules on the basis of validation was introduced through regulations of 1 August 2013. In terms of awarding credits, partial qualifications after validation in primary and upper secondary education and training, the Education Act permits candidates to achieve a partial certificate qualification, called "a certificate of competence" (kompetansebevis) at any level through validation. The candidates then have the right to access further education and training, in order to achieve a full trade or journeyman's certificate. The certificate of competence is awarded to recognise that an individual has achieved certain objectives (learning outcomes) within an upper secondary curriculum. The certificates can serve as a stand-alone evidence of competences and can be used, for example, to support a job application or participation in further education. These partial certificates of competence are recognised on the labour market, as a documentation of parts of the demands in the trade. It is also possible to access education through validation; hence, the individual must be able to show (through documentation or other means) that they have the required skills or competences to enter a certain level of education and training.

### 1.3. An industry-school collaboration vocational education and training system

In Norway, the vocational education and training model that includes general studies (technical general subjects) is based on direct involvement by companies offering workplace-based apprenticeships. Thus, the Norwegian VET models rely on a social partnership, a collaborative state in which the parties from the public sector and the private sector both join forces (Busemeyer and

Trampusch 2012). Companies' involvement in education and apprenticeship concerns both their priorities and capacity. The industry-school collaborations vocational education and training facilitate the access to advanced technology and costly equipment and provide important training for the students (OECD 2015). VET requires co-ordination capacities across institutions, whereby their pedagogical expertise and technological expertise are combined. So, the first question is perhaps what motivates companies to become involved in vocational education and training? The industry-school collaboration within vocational education and training is a strategy whereby companies actively engage in environmental, social, cultural, educational, and health care concerns (Porter and Kramer 2011) and (Shaw and de Bruin 2013). These actions can be seen as a form of social engagement but are simultaneously driven by a wish to strengthen the reputation of the company and its brand. This may also be an important component of creating, developing an attractive workplace and being recognised for such efforts. Indeed, education programmes in the Nordic countries are all designed to ensure equity, inclusion, social mobility, and lifelong learning (Antikainen 2006). However, on the other hand, the many companies that face a difficult market situation might have less capacity to address matters other than those purely concerning their businesses. Moreover, the choices relating to engagement depend on the decision-makers at central headquarters, which may be distant from production sites. This leads to the argument that people make these decisions, but not organisations, which indicates a negotiated collective decision process within the organisation (Simon 1991).

In some cases, company's motivation for engagement can even be characterised as a form of corporate citizenship, which is seen as a social contribution from a local community perspective (Aras and Crowther 2010). The company managers, stakeholder organisations, the local chambers of commerce and other business community networks, and educational and political institutions may all share a

vision of doing something that strengthens their efforts to achieve professional targets as well as to make a difference to their local community. The companies involved in the industry-school collaborations have found this a suitable way of identifying, testing, and building relationships with candidates whom they may later wish to recruit (OECD 2015). From the company perspective, apprenticeship involvement not only concerns the company's social conscience and interests to support their community but also its ability to meet specific skill or technological needs. This contributes to development of practical skills that can be applied in other workplaces. Although industry-school collaboration on VET is considered to contribute important resources for students, it is also important to reflect on the limitations and vulnerabilities of such an arrangement. Although workplace training generally introduces skills that will facilitate student work opportunities, certain company-specific skills may be less or not transferable for use in other workplaces than broader technological insights. The content defined by parties represents a lock-in risk as education programmes can become too dependent on the needs of specific companies and/or industries. Dependency on company commitments may also lead to vulnerability in times of economic recession, and to deficits in apprenticeship positions or job vacancies.

## 1.4. A student-teacher vocational education and training system

An important value in the Norwegian educational system stated in the Education Act, is the equal right for all children to education from primary school level to upper secondary school level, regardless of place of residence or socioeconomic background (Ministry of Education 1998). This value served as the foundation of the national educational reforms of 1974 and 1994 in which the right to three years of upper secondary education and formal qualification

for a vocation or a higher education was granted to all Norwegian students. Under these reforms, the schools were established to offer academic and vocational programmes. The purpose was to strengthen the prestige of vocational education and training and to encourage more students to choose and complete vocational programmes. **In the 1994 reform**, all vocational programmes were structured in the 2+2 model consisting of two years at school followed by two years of apprenticeship in a relevant company or workplace. Hence, VET education was organised into 13 programmes, each leading to different but presumably related vocations. The first year in each programme provided general studies within a vocational area, while the second year provided more opportunities for vocational specialisation. The reform meant that many types of vocational education programmes which previously had differed in length and organisation were now incorporated into a common structure. Many vocational training programmes which previously were not included in the apprenticeship system were now given formal status as educational programmes for skilled workers.

Formal rights to education at upper secondary level were granted to everyone under the reform. 1994 reform was based on the good intentions of educational equality and an improved perception of VET, but it also created considerable challenges. Research showed that the main objection from companies, students and vocational teachers alike was that the education was too theory-based and failed to meet the competence needs of vocations and workplaces (Blichfeldt 1996; Støren, Skjersli, and Aamodt 1998). The aim of the reform was to achieve equal access to education for all, but as a result, the education became more standardised and generalised. The Standardised, broad-based VET programmes have had a tendency to become less vocationally relevant and less respected in the labour market. Some of these problems were addressed in a new reform, **the Knowledge Promotion Reform of 2006**, which still

regulates the Norwegian VET today. The 2 + 2 structure was retained. The number of vocational programmes was reduced from 13 to nine, now includes electricity and electronics, building and construction, healthcare, childhood and student development, design, arts and crafts, media and communication, technical and industrial production, sales, service and tourism, restaurant and food processing, and agriculture, fishing and forestry (Directorate of Education 2006). The first year in each programme leads towards a broad range of vocations within the respective fields. The second year, however, specialises in a smaller number of vocations. Hence, both the first and the second years contain three types of subjects: **the academic subjects**, such as languages, mathematics and social subjects; **vocational subjects** directly related to the actual vocations; and **in-depth vocational studies**, where students have an opportunity to specialise in a specific vocation, preferably through a placement periods in a company.

The formal curricula for the academic subjects are provided in both vocational and academic programmes and they are therefore called **common subjects**. The purpose has been to strengthen vocational students' academic knowledge and to provide students with the opportunity to transition to academic programmes should they wish to do so. The intention has also been to provide the more and equal opportunities for higher education and to increase the status of the VET programmes. As a basis for the formal curricula in the **vocational subjects** in the Knowledge Promotion reform, the tasks and competence need in the vocations in each programme were analysed and described. This means that the formal curricula vocational subjects are largely structured around subjects and learning outcomes concerning general work functions and work tasks that are considered common to the respective vocations in the respective programmes. This made the curricula more practical, holistic and vocationally relevant. However, given a large number of vocations included in each programme, the formulation of the



learning outcomes becomes highly general. For instance, the curriculum for the programme Technical and Industrial Production (first year) is divided into the following three main areas or subjects: (1) technical services; (2) production and (3) documentation and quality. The curricula for other programmes have similar main areas. The example of a formulated learning outcome from Design, Arts and Crafts is typical: The student shall have competence in developing ideas to products and services as a base for they own production and entrepreneurship (Directorate of Education 2006). The idea seems to be that it should be possible for both vocational teachers and students to interpret and specify the learning outcomes in relation to each of the vocations included in the programme, which in this instance would include hairdressing, floral design, interior design, etc. The general work-based description of the learning outcomes makes it possible to organise teaching and learning based on practical tasks that can be related to theory (Hiim 2013). The curricula specifically state that practice-based learning, the integration of subjects and coherence between theory and practice are the main principles of the In-depth Studies which was introduced in the Knowledge Promotion reform. There had been no requirement for work-life practice in the former curricula for the school-based part of the VET in the curricula from 1994. The key intention for the subject is that students should have opportunities to specialise in a vocation of their interest, preferably through on-the-job practice (Directorate of Education 2007).

There are also formal curricula for each vocation in the apprenticeship part of VET, intended to ensure that all apprentices obtain relevant practical-theoretical competence as skilled workers. As already mentioned, the curricula are based on analyses of the tasks and competence demands in each vocation. Coherence between the content in the school-based and the apprenticeship parts of VET is an explicit principle in formal curriculum frameworks (Directorate of Education 2006). Hence, the companies that take on

apprentices are formally committed to ensuring that the learning outcomes in the actual curriculum are covered. To meet this commitment, it is common for several companies to collaborate on organising a training office that helps facilitate the apprentice learning process. The apprenticeship ends with the formal examination, which usually consists of planning, carrying out and explaining orally and in writing a relatively extensive, authentic vocational task. For students to succeed in VET, the role and capacity of the VET Teachers is also an integral part of the Knowledge Promotion Reform of 2006. The aim is to equate the vocational teacher education with the teacher education in other fields when it comes to extent and status and one of the main measures has been to establish a vocational teacher education programme for skilled workers at the bachelor level, which aimed at increasing the number of, an enhancing the competence of teachers with vocational backgrounds. Hence, the possibilities for developing or elevating existing higher vocational education from level 5 to university level are also discussed. One intention is to strengthen the competence as well as the status of skilled workers and vocational teachers, and to avoid parents and students viewing vocational education as a "dead end" when it comes to opportunities in higher education (Meld. St. 2016–17).

So, in Norway, most vocational teachers hold a trade certificate in their particular field of specialisation, such as plumbing, electrical installation or floristry, plus at least both two years of practical experience and two years of higher vocational education at level 5 in the ISCED classification system (below university level). In addition, they must have one year of vocational practical-pedagogical education at level 6 (the university level). However, many vocational teachers, especially in programmes and vocations that do not have an apprenticeship tradition, such as in Service and Transport or in Healthcare, Childhood and Student Development, have university education at bachelor level 6 in for instance, nursing, engineering or

economics. In addition, they must have one year (60 ECTs) of vocational practical-pedagogical education (Grande et al. 2014). The first vocational teacher education programmes at bachelor level were established in 2003. One idea has been that teachers with vocational backgrounds can themselves contribute to strengthening vocational relevance and status in the school-based part of the programmes. Content in vocational teacher education includes one component (60 ECTs) of in-depth studies in the student teacher's own vocation. A second component (60 ECTs) includes the breadth of vocations in the programme and is specifically focused on teaching in the first year of VET. The third component (60 ECTs) includes vocational pedagogy and didactics, and which corresponds to vocational practical-pedagogical education (Ministry of Education 2015).

Moreover, teachers with vocational teacher education are formally qualified for teaching certain subjects at lower secondary school level. So, this can be seen as one measure to strengthen practical knowledge in lower secondary school and the connection to vocational programmes at upper secondary level. Vocational teachers with different types of teacher education have access to research-based master's programme in vocational pedagogy. Then on completing their degree, the students are eligible to undertake a PhD programme in education science at the Oslo Metropolitan University, where vocational pedagogy and vocational didactics are elective components. The main aims for these programmes have been to increase vocational teachers' competence, stimulate research related to vocational education, and give all vocational teachers the same opportunities as other teachers to undertake research education. Hence, enhancing the quality and status of VET teacher education and encouraging skilled workers to pursue teacher education are considered important political measures to strengthen the quality and relevance of VET in Norway (Ministry of Education 2017).

## SECTION 2. Participation in and access to vocational education and training

### 2.1. Students participation in vocational education and training.

To evaluate the effectiveness of vocational education and training for students, it is crucial to examine how well vocational education and training programmes support pathways into employment and/or further study, and to consider which groups of students seek and gain access to VET programmes. It is also important to consider which groups do not, but that perhaps should. Decisions about VET participation are shaped by the role that VET plays in the education system and the labour market. It is also influenced by the extent to which key stakeholders, including parents, schools, and companies are knowledgeable about it and hold VET in esteem as a viable alternative to other study and/or post-school options.

Section 1 established that the Norwegian VET system has many strengths, with well-established apprenticeship framework which receives strong support from students, employers and trade unions. But students' participation in a vocational education and training system that supports pathways into employment and/or further study among students requires effective and quality VET training, better link provision of VET to the labour market, and the improved use of evidence in VET policy making (Organisation for Economic Co-operation and Development 2008). In the 2008 OECD review of Vocational Education and Training in Norway, a set of six interconnected recommendations outline how students participation in vocational education and training can be enhanced such as:

1. Improving the match between VET provision and labour market needs, by ensuring that student choices are better guided and channelled. VET provision should take account of the availability of apprenticeship places; counties, as advised by county vocational committees, should reduce programmes that attract few apprenticeships. Students should receive good quality career guidance from well-qualified staff in lower and upper secondary school.
2. Tackling dropout by ensuring that interventions in the early school systems that assist those at risk of dropping out are strengthened. The system's flexibility should be used to keep VET students in school while avoiding initiatives that might increase inequity. Better data should be collected on the flow of students through education and on the labour market performance of dropouts.
3. Ensuring that the subsidy received by employers supervising apprentices are reflected in the quality of training received. Employers receive relatively substantial subsidies for apprenticeship training. Steps should be taken to ensure that the quality of the training provided is commensurate. A

systematic study of the costs, benefits and quality of apprenticeships should be undertaken.

4. Introduction of the Knowledge Promotion Reform provides a useful opportunity to reinforce assessment procedures. A standardised national assessment of apprentices' practical skills should be introduced.
5. Workplace supervisors and trainers of apprentices should receive some obligatory training.
6. Enhancing data and analysis relating to VET and ensuring they are more routinely used in the development of policy and career guidance. Consideration should be given to the establishment of a dedicated centre for VET data and analysis.

Extensive quantitative studies conducted by the Nordic Institute for Studies in Innovation, Research and Education (NIFU) in 2012 concluded that the dropout rate in Norwegian VET programmes was about the same as it had been before the Knowledge Promotion reform, that is, approximately 30% and 20% chose to transfer to academic programmes. The dropout rate for academic programmes was approximately 25%. But many students drop out of VET because they fail to secure an apprenticeship (Vibe et al. 2012). These figures have remained stable, though with a slight increase in the number of students transferring to academic programmes. However, more recent figures show that 60% of students starting VET completed after five years whereas 20% dropped out. 20% transferred to academic programmes but many of these did not complete their education (Mogstad and Nyen 2016; Directorate of Education 2019). Dropout rate is still regarded as a social problem. The results from these studies indicate that the Knowledge Promotion reform has had little effect on the dropout and academic transition rates. The studies do not explain whether the reason is that the reform has not been implemented downwards in the system

or that the measures taken to increase relevance and status have not worked.

The combined quantitative and qualitative studies conducted by the Norwegian Institute for Applied International Studies (Fafo) concern the implementation of the subject Vocational In-depth Studies and the opportunities for the students to find placements in vocational companies during the school-based part of VET (Nyen and Tønder 2012). The findings show that few students have access to placement periods in companies during their first year, which is contrary to the intentions behind the curricula. In-depth studies in a chosen vocation primarily take place through assignments at school or the school workshop. Opportunities for work experience through placement periods are more common during the second year of the programmes. However, the researchers emphasise that a lack of coherence between the school content and practical work experience is a problem. An essential challenge in VET is to ensure that the students experience coherence between what students learn at school and what they learn through practice periods in the companies. The transition to apprenticeships is perceived to be difficult, and the apprentices feel that they 'must learn everything over again (Nyen and Tønder 2012). The study concludes that the work-life practice strengthens the students' motivation and experience of relevance but also that many students lack opportunities to gain work experience in their own chosen vocations. Part of the problem is that responsibility for contact between schools and companies is largely left to the individual vocational teachers, who receive little support from their leaders and local school authorities (Bødtker-Lund et al. 2017; Hiim 2013; Aspøy and Tønder 2017).

Several studies also indicate that interpretations of the curriculum frameworks for vocational subjects vary greatly between programmes and the schools. Three types of interpretations stand

out. At some schools and in some programmes, the vocational subjects are organised as mandatory introductory modules in the most common vocations. This means that students in, for instance, the building and construction programme must learn about brickwork, carpentry, painting, plumbing, etc. But the research findings show that many students find this quite meaningless. The students want to concentrate on one or perhaps two vocations in which they are interested. Some students, such as those who want to become plumbers, do not receive real opportunities to learn about this vocation before they became apprentices (Hiim 2013). Then, in some programmes and schools, the vocational subjects are largely organised around theoretical assignments and content. The theoretical content may have unclear and varying relevance to the actual vocations. One example is where students in the Service and Transport programme who wanted to become truck drivers had to learn about economics. Another example is where students in the Healthcare, and Childhood and Student Development programme who wanted to become student workers had to learn about physiology and illnesses. There are many similar examples. The research shows that students find it quite meaningless to study theoretical content that is not related to the vocation in which they are interested. (Bødtker-Lund et al. 2017; Hiim 2013). There are also examples of interpretations where the teachers differentiate content of vocational subjects according to each student vocational interests. That is, the teachers organise the content around the students' plans for specialisation and relate it to practical work experience (Hiim 2013).

Hence, the results indicate that the vocational and pedagogical background of teachers influences their interpretation of the curriculum frameworks and their teaching of vocational subjects (Bødtker-Lund et al. 2017; Hansen and Haaland 2015; Hiim 2013; Aakernes 2018). That is, teachers with a professional university background, such as engineers, nurses, economists, tend to

prioritise theoretical content. By contrast, the teachers with an education and background as skilled workers prioritise practical tasks, but they are inclined to favour the vocation of their own training at the expense of other vocations in the programme. The lack of corresponding knowledge and practices to vocations thus poses considerable challenges. When it comes to academic subjects, the studies indicate that many vocational students do not find the content meaningful. Students express the need for competence in, for instance, mathematics or languages in their future vocational work, but say that these needs are not met at school. The education authorities have initiated an extensive national development project aimed at directing academic subjects towards vocational programmes, but no research-based evaluation of the project has been carried out. Since 2010, the principle of relating academic subjects to specific vocational education programmes is stated in the regulations relating to the Education Act, in sections 1–3. Overall, research on [the Knowledge Promotion Reform of 2006](#) suggests that principles of relevance and coherence in the policy documents and the formal curricula are only implemented to a limited extent. There are considerable challenges related to collaboration between vocational schools and companies, opportunities for specialisation, or relating academic and vocational subjects to specific vocations.

## 2.2. Students access to vocational education and training.

At the Oslo Metropolitan University (OMU), a study was carried out from 2007 to 2011 based on experiments aimed at strengthening relevance in Norwegian VET within the existing model. The results from the study concurred with the results from other studies regarding challenges in Norwegian VET. However, the results also show how vocational relevance in the school-based part of VET can be strengthened. The experiments were conducted in close cooperation with a group of 30 vocational teachers participating in

in-service master's programme in vocational pedagogy. In collaboration with their colleagues and their school leaders, teachers organised opportunities for work practice in a chosen vocation for their first- and second-year students. Professional and social preparation of the practice was emphasised, along with contact between the teachers and the instructors in the actual companies, before, during and after the practice periods. Before starting their practice period, students were divided into groups based on their choice of vocational specialisation and they worked on assignments and tasks related to their respective actual vocations. After the period of practice, teachers organised individual and collective reflection on practice experience. The teachers also tried to actively use students' experiences from practice in their teaching. Results show how motivating and meaningful this kind of practice is to most students. Typical statements: It has been very stimulating; I think it is meaningful to learn about the vocation in practice; I could not have been more pleased (Hiim 2013, 326). The students also emphasise that work-life practice is necessary for making an informed choice of occupation: The experience from work practice has helped me become more certain of my choice of occupation and education (Hiim 2013, 249).

In many of the teachers' experiments, all the vocational subjects were integrated with and organised around the students' practice experiences. The students' reactions are positive, such as "The work I do in the company and the work I do at school are somehow connected." That is what makes me learn (Hiim 2013, 336). In the OMU experiments, academic teachers were responsible for relating academic subjects to tasks in the specific vocations. For example, lessons in mathematics were used to perform important calculations in work practice or in the school workshop. Such tasks could involve calculating the quantity and price of food for a dinner or the right dimensions of materials needed to build a roof; lessons in English were used to read the manuals that students needed for their work;

in Norwegian lessons, students wrote authentic work reports, etc. Again, the results were positive: "When the subjects are directed towards something that is interesting, that is, the vocation, it is ok. When they are directed towards the vocation, and I see that, it is motivating" (Hiim 2013, 307). One challenge was that many academic teachers know little about vocational programmes and were reluctant to collaborate with vocational teachers. Analyses of the curricula for the education of academic teachers at different levels show that vocational education is barely mentioned (Hiim 2013). The experiments also revealed many challenges, some of which are mentioned in other research studies. Companies were reluctant to receive the students, especially the companies in vocational areas without an apprenticeship tradition. Sometimes companies were unable to arrange sufficiently relevant work tasks and/or learning opportunities for the students. Schools' time schedules could make it difficult to arrange workplace practice and integrate subjects around practice (Hiim 2013). The vocational teachers who participated in the project managed to overcome many of these challenges. The results show that most vocational students find their education vocationally relevant and meaningful when content is systematically organised around authentic vocational tasks and work-practice experiences. So, companies and instructors who participated in the experiments were more positive about collaborating with the schools when it was well planned and when the schools followed up on the collaboration. As with several other studies, this study also indicates that the work-life practice strengthens the students' opportunities for apprenticeship.

Hence, the take from these studies is that there is a challenge concerning VET in Norway due to dominance of academic, theoretical knowledge, especially lower secondary school. To meet the challenge, new, more practical elective subjects have been included in the curriculum for lower secondary school (Directorate of Education 2015). A subject called Career Choices has also become

part of the curriculum and gives the students the opportunities to become acquainted with different programmes at in upper secondary, vocational programmes included. Furthermore, new regulations allow students the opportunity to transfer directly from academic to vocational programmes after one year and new programmes have been established that combine vocational and academic subjects in ways that allow the students to complete their education as skilled workers and gain formal access to higher education without having to spend extra time doing so (Meld. St. 2016–17). The rationale is that opportunities for direct access to higher education will increase the status of VET. It has also been argued that flexible opportunities to transfer between programmes make it easier for the individual students to find their future career. In the new education reform in 2020: 2+2 model was retained as the main model in VET. One important argument is that broad vocational programmes give students across the country opportunities to undertake upper secondary education without having to move from home. And another is that students who are uncertain of their vocational career choice have time at school before having to choose a vocation. However, the reform brought about some structural changes aimed at reducing the breadth of the vocational programmes and at increasing opportunities for specialisation for both the first and second years of the school-based part. And more extensive and stronger cooperation between vocational schools, companies, and a stronger vocational relevance in both vocational and common academic subjects are key principles in the reform.

### 2.3. Attracting student to vocational education and training in Norway.

There are different ways to judge just how attractive vocational education and training in Norway and its developments are. And since vocational education is currently directed mostly towards

young people, it is logical to look at its status among this group. One way to do this is to look at the percentage of 18-year-olds who apply for apprenticeships in companies. The percentage seems to be relatively stable at about 20% of the 18-year-olds joining the VET sector per year, which puts Norway in the middle of European statistics, far below the strongest vocational training countries such as Germany, Austria, Switzerland, or Denmark, but also far above countries where apprenticeship schemes tend to play role as socio-political instruments. It is one thing to talk about how many students apply for vocational education and training in general, but it is yet another thing to look at the applications and the status of the individual trades. So, there is great dissimilarities in Norway, not least when one considers the size of the working fields covered by some trades (Olsen, Høst and Michelsen 2008). Historically, the different characteristics of the Norwegian working life have had and they are still having a great significance for the status of vocational education and training in general, and how this varies from region to region. For example, it is true that a formal education has historically not been very important for jobs or promotions within the industrial sector, and a job as an unskilled labourer was often the most important route to a job as a skilled worker (Korsnes 1996). To the extent the status of skilled workers was formalised in these careers, it was done through the so-called Section 20 Scheme, which paved the way for the Experience-based Trade Certification Scheme of today (Michelsen and Høst 2002).

However, the fluctuating and somewhat limited expansion of the apprenticeship system in the public and private service sectors reflects the differences in how the transition from education to working life is structured for the different fields of work. One can here speak of a segmented labour market for young people. This segmentation is constructed and reconstructed by the institutional relations between work and education. In general terms, the labour market in this context may be divided into three categories:

1. The first category is areas where the apprenticeship system has gained a strong foothold, which is to say where skilled workers are the dominant category of employees, with a designated position within the companies' division of labour. Here, companies recruit employees to these fields from vocational education through the apprenticeship system, and access through apprenticeships for students from upper secondary school is good. For example, craft and industrial trades of a certain size and with long traditions of apprenticeships where the apprenticeship scheme is established as the main educational pathway for young people in upper secondary school.
2. The second category is areas where the division of labour, at least to a certain extent, is structured by trades, but where recruitment does not primarily occur by recruiting apprentices from upper secondary school. This is particularly typical today of the health and social care sector, but also in the field of transport. In these fields there is established categories for skilled worker such as health care worker, childcare and student worker, skilled workers of different types, and bus and lorry drivers. In these occupations, efforts have been made to recruit through the apprenticeship scheme, but the supply of skilled workers is often ensured by recruiting unskilled adult or young adult workers who later qualify through the Experience-based Trade Certification Scheme. This involves a large degree of openness to accept unskilled workers, but this method also weakens the possibility of establishing a standard for training through an apprenticeship scheme.
3. The third labour market category, which is the largest market for young people covers a large part of the service industry, not least of which is the consumer goods and retailing sector. It is very difficult to establish vocational training. The need

for technical expertise of this vocation's profile is still unclear, there is limited access to apprentices and there is no fixed place in the companies' division of labour for these types of skilled workers. Unskilled labourers, often students, are employed in the same jobs. There is a weak vocational identity among existing and still small groups of skilled workers.

Looking at these labour markets as a whole, they amount to a market populated by workers who have not taken higher education. Only part of it can be said to be structured by apprenticeship system, while in other parts the border between skilled and unskilled worker is unclear. But should the apprenticeship scheme be the basis for entering working life? In general, a completed vocational education gives young people an advantage in areas of the labour market where such an education is relevant. At the same time, it is true that also unskilled young people find work in fields that have vocational training schemes. Very little research has been done to shed light on the relationships between education and work and recruiting patterns in individual trades in Norway. The apprentices contribute to a large part of young people being employed within traditional core areas of the apprenticeship scheme in craft and industrial trades, but only a small percentage of young people can be employed in the largest labour market in the hotel and restaurant trade, and consumer goods or retail sector. On the other hand, within health and social care sector there are few young people employed, but most of them are apprentices. The major recruitment in this sector consists however of unskilled adults. There may be two main explanations for the fact that the sectors with a lot of unskilled labour do not recruit apprentices. First, that apprentices and skilled workers are not in demand at companies, and secondly, that young people are not interested in becoming apprentices and holding Craft Certificates in these trades. However, there is a great demand for young people as workers in the consumer goods and retail sector,

and this sector has expressed interest in apprentices and skilled workers (Høst and Evensen 2009, Markussen, Evensen, Høst and Prøitz 2009). In addition, The Programme for Service and Transport is, together with the Programme for Health and Social Care where most students apply for a transfer from vocational education to the Supplementary Programme for Qualification for higher Education. All this clearly points toward the main problem being a lack of applicants because young people do not think being an apprentice in the consumer goods and retail sector is an attractive option. In the areas of health and social care and in Consumer goods and retail studies, there are many conditions that would give young people plausible reasons not to choose a career as a skilled worker. While one can find the same type of job as an unskilled worker in the consumer goods and retail sector, one problem in the health and social care sector is that skilled workers have a very limited area of work compared with people educated at colleges and universities (Høst 2006).

## 2.4. Theory and practice in vocational education and training in Norway.

Study on vocational education and training made explicit attempts to link theory and practice together (Canrinus et al., 2017). The study addressed the coherence between theory and practice at an educational institution, and between teaching at the educational institution and pedagogic practice within school. The research highlights the need for better coherence between the education and the field of practice (Canrinus et al., 2017). At the same time, other research shows that little professional orientation and weak coherence that exists between vocational and professional education and the field of practice is a challenge in today's teacher education programmes in Norway (Heggen & Terum, 2013; Hiim, 2015; Sylte 2018; Terum & Smeby, 2014). Sylte's research on didactic principles for relevant vocational and professional education can show that



coherence is necessary not only between theory and practice, but also between the various subjects in the education, and between the educational institution and working life. The core of the principle is the analysis of vocational tasks and practice as a starting point for curriculum analysis and lesson planning that are related to holistic vocational competence. In her research, Young (2004) emphasises the importance of skilled workers gaining insight into theoretical innovations that underlie development of modern professions. This requires professional theoretical insight related to justifications, criticism and development of professional practice. Without such insight, professional practice and society will lack opportunities for professional development and renewal. There is a danger if it is only the labour market that decides how education should be. It can end up with a strong instrumental focus on earnings and following teacher's instructions in education. One consequence of this may be poor theoretical and poorly developed vocational or professional education (Young, 2004). Thus, there is an emphasis on the need for cooperation between schools and the teacher education programmes, and between subjects, subject didactics, pedagogy and practice.

Vagle, 2016; Hiim, 2013; Vibe et al., 2012) studies show that many school owners, leaders and teachers interpret the curricula so that the students in the first year of upper secondary education have an introduction to several professions. Many students are required to have small-kit pedagogy where they are introduced to many different professions in modules throughout the school year, even though they initially had clear occupational wishes when they started at lower secondary school (Dahlback, Hansen, Haaland, Sylte, 2011; Hansen, 2017). Other students, especially within health and childhood subjects, are offered a general theoretical content at upper secondary education, which will provide the basis for two years of practical vocational training in the companies (Aarkrog & Bang, 2013; Hansen, 2017). Research shows that the way the

education programmes are organised has practical significance whether or not today's vocational students are allowed to start a specific vocational education in the first year (Aarkrog & Bang, 2013; Bødtker-Lund, Hansen, Haaland & Vagle, 2017). Both international and national research emphasise the need to clarify the vocational relevance of vocational and professional education, where the teachers must strengthen their teaching and anchoring of the working life in order to increase the quality of education (Billett, 2014; Hiim, 2013; Jørgensen, Olsen & Thunqvist, 2018). Sylte and Johanlus (2017) quantitative research show that students experienced working methods when they were linked to practice, while theoretical teaching without connection with practice was not perceived as relevant. This research emphasises the importance of professional orientation as a coherence between school and working life. So, it means that the content and working methods of teacher education should be coherent with students' pedagogical practice in school. Other national research points to the need to develop the pedagogical language in vocational teacher education. Bødtker-Lund et al. (2017) emphasise that the teacher's competence must be expanded with knowledge of occupational and interest differentiation.

## 2.5. Opportunities and challenges in vocational education and training in Norway.

To look at the opportunities and challenges in vocational education and training in Norway, the analysis will focus on five different didactic approaches, on which the practice teachers organise the training: (1). *vocational orientation*; (2). *subject didactic*; (3). *vocational didactic*; (4). *interest grouping* and (5). *cooperation school-working life*. Other factors that prove central to the practice teachers' choice of didactic approaches included access to workshops and teacher's background in competence.

### 2.5.1. Vocational guidance through vocational orientation

At some vocational training schools, the teachers orient students through taster pedagogic, a periodic orientation of selected professions that without exception is directed against school programmes. All students must pass through the fixed modules. Students are given no opportunities for specialisation and learn about various professions that are not necessarily relevant for further their educational choices. In the (Dahlback et al. 2011) research, many of the practice teachers said that they had vocational teaching. When asked what they put into vocational correction, several responded that they provided information about different occupations during the school year. Vocational orientation aims to give students insight into a selection or as many as possible of the occupations included in the education programme (Dahlback et al., 2011). Several practice teachers said they found it challenging to find a balance between providing information about the professions included in education programme with 52 different career choices, versus giving the education a professional relay. As practice teacher believe that it wastes way too much time to orient about different professions at the expense of learning in-depth.

However, on the students side, experienced students feel that they have to guide the students with little knowledge of their educational background; wondering why the practice teachers do not inform them about all the vocational subjects in their education. Students are often not aware of how many vocational courses they should have. The way to close this gap was for the students to request the practice teachers to survey each student's occupational interests since the most teachers do not know what kind of career plans the students in the class have. Even though some schools have vocational stations where students could spend about five weeks practising different professions; the challenge for instance, is that

the students who are sure that they want woodworking in the second year of the upper secondary education, have to work at the stations for hairdressing, interior and exhibition design, textile and metal. However, the practice teachers said that student surveys showed that most students are satisfied with working on the practical tasks, and that many students changed their minds after trying professions other than those they had initially voted for. The findings showed that students experience challenges with didactic organisation of training with fixed occupational stations and vocational orientation. Students experience the lack of coherence between the content and the practice because they were not allowed to apply the theory of vocationally differentiated training (Hiim 2013). However, the fact that the students are requesting relevant teaching for students who have chosen their vocational subject, with 60% of the students having have decided on a profession when they started at the first year of upper secondary education, creates an understanding to why many students might quit when the education they are receiving does not make sense to them or their occupational interests and career plans.

### 2.5.2. Subject didactic approach that gives tasks without possibility of individual career choices

Several schools in Norway are still teaching with a subject didactic approach, as was the practice in Reform-94. Both the practice teachers and students work on given general tasks that focus on form, colour, composition or techniques, which are only relevant to some vocational subjects and some students. This is despite the fact that the curricula in the Knowledge Promotion Programme 2006 provide clear guidelines that the education should be directed toward current and future professional practice. But practice teachers often focus on common elements of the training, mostly tasks aimed at drawing, shape and colour. So, the students are only

given general instruction, introduction and the opportunity to work with given techniques, with a little room for the students to choose what they wanted to work with. So, when the students talk about teaching where all the students should work on the same task, such as drawing logos, making lamps, bags and masker; they felt that teaching was carried out independently of the students' choices. That the students have to learn to sew buttonholes, even though none of the students had chosen design and textiles as further education in their first year of upper secondary education. But a practice teacher that has a background in dress and costume sewing, does believe that sewing the buttonholes is a basic competence for all students. While it can be through at some extent, what about the students with a hairdressing background for example who have to be taught in workshops for technique style, ceramics, or woodworking, even though those students had hairdressing as their first choice in second year of upper secondary education.

The findings show that general academic content is not vocationally oriented in line with the intentions of the Knowledge Promotion programme, and that the teaching is an introduction to context-free theory, where the topics are general with low occupational relevance. The subject didactic approach is rooted in a conventional view of knowledge rather than a pragmatic vocational didactic (Hiim, 2013). Students who called for vocational anchoring and differentiation make quite compelling statements such as that a florist uses drawing and colour differently from a hairdresser and both need a different type of knowledge and skills in order to practice their profession. The results indicate that students who attended practice schools with a subject didactic approach had little chance of trying out vocationally differentiated teaching in line with Dewey's (2005) theory of the importance of students' interest and custom goals for learning. Students reported that they felt insecure in teaching, and that many experienced a lack of competence in general drawing, form and colour. Previous research also points to

the connection between the teachers academic background and their view of knowledge, and low occupational relevance through lack of regard for students' vocational interest or custom goals in broad educational programmes (Bødtker-Lund et al., 2017).

### 2.5.3. Vocational didactic approach with occupational differentiation

Looking at research, some of schools in Norway are characterised by a pragmatic view of knowledge and a vocational didactic approach in line with Sund's (2005) model for vocationally differentiated training (see Nielsen & Haaland, 2013). The model is based on the students' professional interests and further the education plans in line with Dewey's (1916, 2005) thinking, as well as vocational task and professional practice as a basis for contextual training (humanistic contextual vocation education and training) in broad educational programmes (Hiim, 2013).

In the interview, all the practice teachers responded that they differentiated their teaching professions. Stating that "they let the students choose which profession they want to focus their duties on". But the students, on the other hand, reported that few practice teachers reintroduced the vocational didactic approach during the practical training period. Findings show that many teachers, both teachers and students, faced major challenges in relation to the pre-set framework when implementing a vocational didactic approach in practice. Practice teachers said: "They have neither the competence nor the equipment to provide interest-differentiated training to the students in class". Several teachers talked about a lack of materials, works, workshops, challenging cooperation with the business community and a lack of competence in the distinctive characteristics and commonalities of the professions. Like Nielsen and Haaland (2013), the students believed that the challenges could also be linked to a lack of competence in leading learning processes with common learning goals and different tasks and materials.

Several students said that they were not allowed to work with occupationally differentiated pupil gifts, while others were directly discouraged from working in this way. Such as when practice teacher state that vocational assignments do not work and discourage the students from creating open-ended assignments. The students thus wondered why the students' professional interests should not affect their teaching when the students had already applied for the second year of the upper secondary school. Several students pointed out the changes in the students' motivation for a student work when the student assignments became occupationally differentiated. Thus, the students suggest vocational orientation towards different professions, which would well receive by the students. Hence, the study shows that students' perception of relevance and meaning between YFL theory and pedagogical practice is linked to the extent to which the students were able to complete the vocationally relevant teaching with early vocational specialisation. It was also observed that the students who were allowed to lead learning processes and differentiate the under-wing wanted to further develop their vocational didactic competence in the programme.

#### 2.5.4. Interest groups aimed at the courses offered by the school.

At other schools that were characterised by a pragmatic view of knowledge and a vocational didactic approach, both practice teachers and the students reported that the schools had established interest groups aimed at the school's second year of the upper secondary school programme. The practice teachers justified this on the grounds of the school's workshops, the teachers' competence and that it was in these vocational subject areas that they could provide vocationally relevant teaching. If the students wanted to become hairdressers, they received training towards the hairdressing subject in both the common programme subject (PF)

and in YFF throughout the school year. Practice teacher said: "they have interest groups in hairdressing and interiors, the rest of the students are gathered in a common class". At this school, most students wanted to train as hairdressers and interior designers, and many of those in the class with other professional interests were uncertain about further choices. Practice teachers and students talked about interest groups that worked well for the students who wanted to become hairdressers, but several saw the challenges when students discovered that they had made the wrong choice. Moreover, the practice teacher also expressed concern, saying: "there can be a lot of pressure on those students who have had early specialisation, and those who have not been able to try their profession during the school year at all". Other practice teachers thought this was justifiable, as all the students achieved the competence goals for a first year of the upper secondary school. Explaining that they are used to students having different competences when they come to the school, as they get students from different schools.

At county level, teachers said that it is possible to collaborate with other schools to have interest groups across the schools. The offer can be adapted to schools' workshops and the teacher competence. Collectively, this collaboration was able to offer students training in hairdressing, interior and exhibition design, floristry, textile, metal and woodworking. Practice teachers said: "this works very well, and they plan to integrate and continue with this framework". Though both students and practice teachers experienced challenges when, for example, students had to continue in their original interest group even after they had changed their career choices. The students said that at these schools they were allowed to teach interest groups related to their own vocational background. They felt that the teaching worked well, and they justified this on the grounds that they were teaching a vocational subject in which they had good insight. However, several students felt like they missed on

experience in teaching students with different education plans in their practice and felt that these schools' approach meant that they were unable to test the training they had received at YFL in practice. This was despite the fact that the teaching met the requirements for more in-depth study (Meld. St. 28, 2015-2016).

### 2.5.5. Strengthening the cooperation between school and working life.

The Knowledge Promotion Programme 2006 provides guidelines for binding cooperation between the school and working life at all levels of education and training. Although this has been a national priority (Buland & Fonn, 2010; Notify. St. 20, 2012-2013), Nyen and Tønder (2012) refer to the challenges with many established cooperation between school and working life. In 2016, the subject Project for specialisation was so replaced by Vocational specialisation (YFF). The purpose of YFF was, among other things, to give the students the strengthened opportunity to try out one or more relevant learning subjects, as a basis for their choice of profession (Udir 2016). Despite new guidelines, the results of this study indicate that it was still up to each practice teacher's network and the school's framework to what extent the collaboration with working life functioned. All practice teachers said that networking and cooperation with working life was an important factor for relevant vocational learning. Nevertheless, they reported that only less than half of the students had vocational work experience during the first year of the upper secondary school. Many of the practice teachers said they lacked time to maintain and establish new contacts with working life, and several asked for their own funding for one or more practice coordinators. Then, several practice teachers emphasised the need for school leaders to provide a better framework for cooperation between school and working life, so that the practice teachers could prioritise this.

Some practice teachers pointed out that they chose to save the internships for the second-year students., because the first-year students knew too little to have practical training in working life, and many did not know what they wanted to study for. However, they said that they were positive to having the students put into practice when the students had clear career plans and the school could not offer training in the subject area. Many students, on the other hand, said that: "the students could choose to be at school writing about a subject, instead of being out in practice". Many students also pointed out that much of the work experience did not target the professions relevant as it seemed that they could choose almost anything. According to practice teachers, the students were only allowed to work in the profession they wanted to study when they had YFF in their working life; they are not able to focus on all subjects, but they get to work towards their career choice when they are out in a company (YFF). Several also pointed out that it was only when the students came out into practice that they saw what the profession was about. Many students discovered wrong choices, while others were strengthened by the fact that they had made the right choice. The question is then whether relevant practice in working life could help reduce dropout rates in upper secondary education. Hiim's (2013) research shows that many students make wrong choices and that many need to experience different professions before making conscious career choices. One-third of the practice teachers said they used professionals from the labour market in their teaching and as dialogue partners to ensure professional relevance in their training. Then, Ellström's (2012) research, points out the importance of knowing working life from the inside, and of collaborating on how to ensure quality through reflective dialogues. The students said that the networking they had done during their studies was very important; outlining further that vocational practice has given them considerable insight into different professions, and a unique network that they can later use.

Billett (2014) also emphasises the need to decipher the vocational relevance of professional education, where the teachers must strengthen the teaching and anchoring of working life in order to increase the quality of teacher education. Similarly, like Sylte & Johanlu's (2017), and Aarkrog and Bang's (2012) research, points to the importance of strengthening cooperation between schools and companies in vocational teacher education: Competence development of teacher skills should include an updated understanding of practice in companies (Aarkrog & Bang, 2012, p. 22). Even though findings show that work placements must still be part of the training for students at YFL, so that they gain insight into the professions, it is not possible, nor is it intended, for students to be able to practise all 52 different professions included in the educational programme. On the other hand, there is a necessity to build up a network of skilled professionals and companies that students can cooperate with as competent vocational teachers. This is in line with Dewey's (1895/1972) pragmatic transaction theory, where the overall perspective is emphasised. In this context, Sylte (2017, 2018) points to an important didactic principle for relevant vocational and professional education. It implies the necessity of coherence between theory and practice, the various subjects in education and between the educational institution and working life. Therefore, it will also be important for vocational students to have practical training in working life in order to learn and understand. One of the challenges is that many of the businesses are small businesses with only one to three employees, where it is difficult for many to find the time and finances to mentor students. This means that many do not accept students or students in practical training. The challenge is therefore how more people can be motivated, including small companies, to benefit from win-win situation by having practical training students and students in practice. Without cooperation with working life, it would be almost impossible to offer early vocational specialisation to all professions.

### 2.5.6. Strengthening students' pedagogical practice in school and working life.

Vocational education and training in Norway points to major challenges related to strengthening students' pedagogical practice in school and working life. The greatest challenge laydown is lack of vocationally relevant content in the upward learning. The purpose of the curriculum for education programme (Udir, 2006) states that the training shall contribute to the development of craft skills and basic vocational competence. However, the content might be of little relevance when practice teachers teach solely on the basis of their own profession, without giving examples to the professions for which the students specifically want to be educated. According to the students, a lack of involvement and the fact that everyone have to solve the same tasks independently of their own education plans is demotivating for the many students. Based on Dewey's (2005) pragmatic theory of the importance of students interest in learning, this may explain some of the students' reactions. So, the current practice might be contrary to political guidelines to strengthen vocational specialisation (Meld. St. 28 2015-2016). So, based on the purpose of education and a pragmatic theoretical perspective, it is necessary that education is based on the students' professional interest, and that it must be seen in the context of the vocational task and professional practice (Dewey, 1916; Hiim, 2013). Although several of the teachers emphasised a subject didactic approach at the expense of the students' professional interest, a lack of vocationally relevant training linked to each student's further education plans remains one of the main problems in today's schools (Aspøy et al., 2017; Bødtker-Lund et al. 2017; Hansen, 2017).

Another challenge that the students encountered in school is that there is no coherence with content. There are differences in what the teachers interpret are relevant working methods and the content, and on the basis of this, also what competencies a

competent vocational teacher needs. For the many didactics the students needed more general competence in drawing, form and colour. Such a subject didactic approach in pedagogical practice, in line with Dewey's (1916) pragmatic perspective on learning, prevent students from choosing vocational didactic approaches based on students' career choices. However, the challenge lies more in the fact that this knowledge must be vocationally oriented towards the students' career choices if vocational training is to meet the competence needs of the future and the requirement for previous vocational specialisation (Udir, 2018). The vocational didactics were generally more concerned that the students could lead learning processes, as well as vocational training in line with Hiim (2013) and Sund (2005)'s research. The students bring solid professional expertise with them from their own vocational subject, and they do a lot of good practice without always being aware of why they do what they do. Vocational didactic reflections help them see what they are doing and why, in order to become competent. This together with critical analyses of what is relevant and for whom, in line with Schön's (1987) reflection in action. Although students are given opportunity to reflect on their pedagogical practice through supervision and individual reflection notes, coherence between theory and practice is also required. Both Dewey (1916) and Schön (1987) are also concerned that students develop wisdom and judgment in their action, which is in line with Meld. St. 28 (2015-2016)'s definition of competence.

It involves understanding and the ability for reflection and critical thinking. Here, a more holistic vocational competence is emphasised, which involves applying practical-theoretical knowledge to master the challenges and solve problems in familiar and unfamiliar contexts and situations (Dewey, 1916; Schön, 1987; Sylte, 2017). Thus, for the students it is important for them to have the opportunity to try out vocational didactics in their pedagogical practice, in order to develop the necessary competences to become competent students. This should be possible at all practice schools,

where may mean that YFL should ideally collaborate with practice teachers who have a vocational didactic approach to the field. Indeed, the consequences of a subject-didactic approach may result in the students not receiving early vocational specialisation (Meld. St. 28, 2015-2016; Udir, 2018). At the same time, coherence is also important (Canrinus et al., 2017; Heggen & Terum, 2013; Terum & Smeby, 2014), where a subject-didactic approach can contribute to better practice and eliminate discrepancy between what students should learn and current practice. There is also a lack of coherence between the school and the labour market's need for competence but at the same time, it is important that education is not only on the terms of working life. The danger is that it could lead to a strong instrumental focus with discipline-based subject didactic training instead of vocational didactics. This may in turn lead to a poorly developed vocational and professional education, where the students only learn narrow fields in a profession rather than holistic vocational competence (Young, 2004). A main concern is that the students can work towards their own chosen professions within the same learning objective (Nilsen & Haaland, 2013).

## SECTION 3. Humanistic trend in vocational education and training

### 3.1. Re-thinking the vocational education and training system.

Vocational education and training have to be both student-centred and for the student. The only content-centered education without room to practice, reduces students' knowledge to objective principles. Content-based knowledge may be intelligible to the intellect, but is incomprehensible to the imagination, creativity, emotional intelligence, and interpersonal skills all of which is so important to the full development of student personality. In vocational education and training of the future, the gap between theoretical concepts and practical relevance must be bridged. So, vocational education and training become contextualised when studied within the physical, social, and cultural circumstances characterising real life and profession situations. So, creating relevant context, vocational education and training come to life. It transforms vocational education and training from a two-dimensional image into a three-dimensional holograph. That is, when we need experts in vocation field, would knowledge of other fields help or distract? Does contextualisation stand in the way of specialisation? These are questions that need to be explored in the vocational education and training of the future. In the context of a vocational education and training of the future, a humanistic approach is introduced, used, integrated, and applied based on common ideas of scholars like Erickson, Roger, and Maslow that began to permeate the field of education, teaching, and learning towards the end of 1970. Thus, looking at it from the vocational education and training practices within the domains of both formal and non-formal vocational education and training, humanistic approach emphasises the importance of the inner world and lived experiences of students as the learners or the participants and places the students' individual thoughts, emotions, and feelings at the forefront of the student's personal, physical, social, psychological, cultural, and professional development. Due to this shift of focus in teaching and learning, a humanistic approach allows both formal and non-formal vocational education and training to move away from current mentalistic approaches of the formal education system. The

advantage of the humanistic approach to both formal and non-formal vocational education and training is the integration and application of humanistic contextual vocational education and training within students' vocational education and training practices. Hence, humanistic contextual vocational education and training brings about flexibility in the teaching, training, and learning process; in the sense that the content of the training learning activities are all planned, designed, and structured around the learning needs, the lived experiences, labour market needs, and the desired changes of the vocational education and training students.

Humanistic approach to both formal and non-formal vocational education and training contributes to realisation of humanistic contextual vocational education and training in the VET Sector, which involves the formation and the realisation of a comprehensive intellectual, emotional, and physical development, as well as harmoniously developed personality, saking into account students' abilities, inclinations, behaviours, and attitudes. And so, the humanistic approach is more focused on: *(1). the formation and the realisation of a comprehensive intellectual, emotional, and physical development of the students as the learners; (2). Students' educators' ability to understand students learning needs, their lived experiences, and their desired social change; (3). the attention of the teachers to the feelings and emotions of student; and (4). the involvement of student in the process of acquiring the knowledge and developing the skills.* The humanistic approach to formal and non-formal vocational education and training practices involves the co-creation among the students themselves and with the teachers, which: *(1). Places the needs, lived experiences and interests of the student at the centre of both the teaching and learning process; and (2). Contributes to the formation of student's interpersonal skills.* That is: *(a). the formation of the skills among the students to build positive human relationships; (b). the students' ability and skills to engage in interpersonal dialogue, interact, work in a team, and*



*create collaboratively; and (c). development of creative skills and capacities among the students: such as teamwork, leadership, communication, intercultural interaction, self-organisation, emotional intelligence, and self-development skills.* Humanistic approach to formal and non-formal vocational education and training responds to the fact that the formal education system falls short on the above skills that the students need to live a more content and fulfilled life. Within formal school systems, no matter how far one can go, it never teaches learners anything about listening skills, Emotional Intelligence, and Interpersonal Skills just to name a few skills. But yet once students are exposed to any work or job environments, they are expected to have somehow acquired and developed such relevant skills that facilitate the way people work, interact, and perform, not only professionally, but also in any personal, social, and cultural interactions.

## 3.2. Humanistic contextual vocational education and training

Although the form school systems are the spaces that allow most young people to access education of various types, it is crucially important to consider that not all the young people are in; go to; have access to these spaces. There are those young people who for various reasons are not formally studying or have finished their studies. However, this does not mean that they should not have equal rights and opportunities to learn and acquire knowledge and develop the skills that are relevant to a brighter and favourable future. The reason why vocational education and training systems exist; to respond to the needs and the interests of young people who are out of the formal schools systems and/or complement the needs and interests of those who are in the form schools systems. Hence, to make these vocational education and training systems more student-centred, humanistic contextual vocational education and training provides a system that is easy to navigate, understand,

and use by young people, because it offers them a kind of vocational education and training that is purposive but context-based learning in nature. Focusing on students lived experiences, their comprehensive intellectual, emotional, behavioural, social, and cultural development, and the inclusion, diversity, and equity become the main pillars of Humanistic contextual vocational education and training. And so, the VET Sector gets to offer learning possibilities, especially to those most marginalised and vulnerable young people from disadvantaged groups and minority communities. It provides them with a safe space to act freely from the constraints they experience in their daily lives; experiment with aspects of their personal experiences, needs and interests that are normally suppressed, and to a certain extent, reinvent themselves without fearing disapproval or pressure of their peers. So, to better understand how the concept of humanistic contextual vocational education and training, it makes more sense to split the concept of humanistic Contextual vocational education and training into two complementary concepts: (1). [Humanistic vocational education and training](#), and (2). [Contextual vocational education and training](#).

### 3.2.1. Humanistic vocational education and training

Humanistic vocational education and training, also called the student-centred vocational education and training, is an approach to vocational education and training based on the work of humanistic psychologists, most notably Abraham Maslow and Carl Rogers. Humanistic vocational education and training focuses on dignity, autonomy, freedom, integrity, social and mental well-being, equity, and potential of the students. Students like all the adult, they enjoy making their own decisions about their lives and teachers must trust that the students' educational choices as learners or the participants in vocational education and training, are indeed well-reasoned. The ultimate goal of humanistic vocational education and training is to

develop the self-actualised individual. For instance, if students from disadvantaged groups or minority communities have control over their own learning, so any personal development and increased sense of social justice help the most marginalised and vulnerable young people to grow and have beneficial effects on their lives and society as a whole. So, this kind of humanistic vocational education and training is based on four components of successful learning in contexts of vocational education and training: *(1). A free, safe, inclusive, diverse, interactive learning environment;* *(2). Relating teaching and learning to the students' own experiences;* *(3). An experiential, collaborative, and problem-based learning approach;* and *(4). Learning with the purpose of achieving the desired social changes.* Therefore, humanistic vocational education and training makes the primal goal of future vocational education and training to ensure that the students, in all their diversity, have the freedom to delve into any topics they wish for the learning to take place. Indeed, the most important observation in vocational education and training is that the students are most motivated when they learn what they want and what they learn helps them make sense of their lives, their surroundings, or their desired social change. Moreover, humanistic vocational education and training highlights the role and the place of teacher; emphasising that in vocational education and training, students learn best under a constructive relationship with teachers where feedback is seen as assistance to promote learning and growth rather than criticism. Thus, the more the content is related to the students' self-concept and their lived experiences and the desired social changes, the more meaningful the learning becomes, and hence, the less likely it is to be rejected by the students.

Hence, to guide the students along the path to self-actualisation, the teacher's role is to help students grow socially, emotionally, and intellectually, to become independent and self-directed learners. Learning takes places through personal experiences in the form of

experiential, collaborative, or problem-based learning as well as peer and service learning. The teachers make sure that students have the resources to achieve the desired social changes but become involved in case students have questions. So, this facilitator role is an integral part of humanistic vocational education and training. The teachers encourage students to explore their interests, develop their talents, and become aware of social welfare issues. Thus, the teachers' confidence in the students' capacity to develop is the starting point for the students to take charge of their own learning. Therefore, all these requirements combined, requires teachers to develop one set of skills that make them better facilitators: **Interpersonal Skills**, including listening, communication and emotional intelligence skills that develop respect for other people's feelings and thoughts and allows students to acquire knowledge and develop skills in an interactive learning environment. Interactive learning environments encourage the students to think creatively and express their ideas, form hypotheses based on their needs, choose methods of finding information to test these hypotheses, and both construct knowledge and develop skills from their findings. Such a co-planning helps students think about why they want or have to learn something. The students choose a problem that is related to their lives and understand the problem fully to conduct an inquiry, and to come up with alternative solutions. Evaluation then looks at the outcomes and suggests adjustments and changes for the future. Here, the students are allowed to seek knowledge, develop skills, and grow on their own terms rather than to force knowledge upon students like in the current form education systems.

### 3.2.2. Contextual vocational education and training

Contextual vocational education and training is based on a constructivist theory of teaching and learning. It implies that; in the

vocational education and training, the learning takes place when the teachers are able to present the information in such a way that students are able to construct meaning, acquire knowledge, and develop skills based on their experiences. So, in vocational education and training, contextual vocational education and training focuses on emphasising problem solving; recognising that both teaching and learning need to occur in multiple contexts; assisting students as learners in learning how to monitor their learning and thereby become self-regulated learners; structuring teaching and learning taking into account the diverse life context of learners; and encouraging the students to learn with and from each other. In other words, it is much easier to understand things when the students see them in a context. Nothing exists in isolation. Everything needs to be seen in a context. In the same way, vocational education and training can acquire meaning and come to life when we can make it contextual. Similarly in vocational education and training, no subject or topic can in isolation provide any meaningful knowledge. Meaning emerges from the relationship between the learning content and its context. So, the context gives meaning to the learning content. Hence, the broader the context within which the student makes connections, the more meaning the content holds.

Thus, by practicing contextual vocational education and training, everything is learnt within the physical, psychological, racial, gender, social, cultural, political, economic, human rights, and the personal circumstances characterising real life situations of the students as the learners: the subjective mental and emotional processes that prompt human action, and the creative role of individuals in the collective social process. Contextual vocational education and training, ensures that students are able to process new information and knowledge with reference to their memory, experiences, and the knowledge already acquired. Hence, the opinions and perspectives of students are valued, and so are their life context and prior knowledge. Therefore, along this teaching and learning path, there

is a constant emphasis on establishing relationships between the content and the circumstances in which it is to be implemented; between the content and the students' needs; as well as between acquiring knowledge and developing skills and the students' lived experience and desired social changes. So, instead of accentuating the dualism between thoughts and action, contextual vocational education and training unites concept and practice. Thus, students' interests and achievement improve dramatically when they are helped to make connections between the new knowledge, lived experience and their old knowledge. That is, students' engagement in work, motivation and comprehension increases when the students understand why they are learning what they are learning, and how what they are learning can be used in the real-world contexts. It eliminates the question: **Why am I learning this stuff!**

### 3.3. Prerequisites for humanistic contextual vocational education and training

Many vocational education and training programmes in formal and non-formal vocational education and training settings often teach and train the students in the same way as children are taught and trained, which leaves the most students frustrated, and thus, lose their interests in following up with the training or the programme. Hence, before applying humanistic contextual vocational education and training to both formal and non-formal vocational education and training settings, effective transfer of interpersonal skills, including communication and listening skills, and emotional intelligence skills among teachers must be effectively developed. This is because teachers should be able to consider the most crucial characteristics of students, and at the same time, the teachers should be aware of the implication those characteristics have on overall learning process among the students. Furthermore, for the teachers to be able to facilitate the learning process, necessary attitudes and training skills of a facilitator are vital rather than of as a teacher. It is essential for

the teachers to have an open and a friendly relationship with themselves, and the students based on respect and equality; and at the same time, be able to facilitate the same among students themselves. And therefore, such comprehension of interpersonal skills by the teachers brings about an atmosphere of respect, acceptance, and encouragement where the students feel free to ask questions or share their ideas. It creates the atmosphere that makes learning more interesting and worthwhile for students; and which, furthermore, encourages the students to decide on the topics to discuss. In this way, the topics discussed are relevant and useful to the students, which allows them to become more receptive to acquiring new knowledge and developing new attitudes, and skills.

### 3.3.1. Teachers' interpersonal skills level

Interpersonal skills are the traits of self and social awareness that people rely on when interacting and communicating with others. Thus, these traits involve one's ability to communicate and/or build relationships with others in different social situations. Often called people skills, interpersonal skills incorporate one innate personality traits awareness and how one learns and is aware of how the innate personality of others within social settings develop the behaviours and attitudes a person uses to interact with others effectively and considerably. So, to ensure the teachers are able to adopt and facilitate humanistic contextual vocational education and training in vocational education and training, it is crucial that they have a high level of interpersonal skills.

In our context, interpersonal skills are defined as not only the ability to work in a group or to have effective leadership and problem-solving skills; an emphasis is placed on the nature of the teachers' competences in the teaching-training-learning process. That is, when one considers the aspects such as: listening and verbal, non-verbal communication skills; the ability to guide group discussions; the ability to deal in a gender sensitive manner with the students

from diverse backgrounds; and the ability to both create interactive and participatory learning environments; teachers who use the one-fit-all methodology lack or have low-levels of interpersonal skills which in return hinder their competence towards meeting students' needs based on students' lived experiences and desired social change, but rather, leave students frustrated, which is one of the most important factors forcing students to leave or abandon vocational education and training.

1. Interpersonal skills help us interact with each other effectively, on the different levels of both social and professional interactions and they can be developed and improved over time with practice.
2. Expressing our needs assertively, being considerate and appreciative of others, resolving disputes in gender-culturally-sensitive approach, and listening to others are interpersonal skills worth practicing.
3. Interpersonal skills allow us to read the signals others send through non-verbal communication and interpret them accurately in order to form a response that reflect what the others are expressing.

### 3.3.2. Teachers' emotional intelligence level

Emotional Intelligence is defined as the ability to recognise, understand, manage one's own emotions and at the same time, recognise, perceive, and consider the emotions of others in social settings. In practical terms, it means that emotional intelligence is: *(1). the level of one's own emotions awareness and one's ability to recognise, process, manage and effectively deal with those emotions. And (2). an individual's ability to identify, evaluate, and perceive the emotions of others and assertively express their thoughts, needs, and emotions by being considerate of the emotions of others in social interactions.* So, this is crucially important for

creating a conducive learning environment that values and respect the students' existing knowledge, their lived experiences, and desired social change when the teacher is making the choice of teaching and learning methods to use. Thus, the teacher with a high level of emotional intelligence skills considers a number of factors to determine which method is suitable or not, by relating to how each of those learning methodologies could facilitate the perception of the learning content among students. Hence, here is where Emotional Intelligence become in handy, and more crucial in the delivering of training activities for the students, by being aware of and relating to the social factors affecting students learning process.

### 3.3.3. Emotional intelligence and interpersonal skills

Within vocational education and training, teachers are responsible for making the choice of the methods to use depending on a number of factors, which must be done in the manner that establishes relationships between content and the circumstances in which it is to be implemented; between content and students' needs; between acquiring the knowledge and developing skills and the students' lived experience and desired social changes. It is thus crucial that teachers are able to make connections to each of the methods to how they would want those methods designed for them if it was them on the receiving end of the education or training process, which allow them to make an appropriate choice for every situation while interacting with students. That is, it is essential for teachers to have open and friendly relationship with themselves first, and then with students based on mutual respect and equality. So, this creates an atmosphere of respect, acceptance, encouragement where the students feel free to express themselves; make connections between new knowledge, lived experiences, old knowledge and to understand why they are learning what they are learning, and how what they are learning can be used in their social, cultural,

economic, or professional contexts. And thus, eliminating the question: Why am I learning this stuff!

So, this is where the intersectionality of Emotional Intelligence and Interpersonal Skills becomes crucial key component in the realisation of humanistic contextual vocational education and training in vocational education and training. It allows teachers to consider factors affecting the students such as the language barriers and learning and performance abilities present among the students. That is, in addition to having a considerable level of Emotional Intelligence skills, teachers should have the considerable levels of interpersonal skills to be able to take into account factors affecting the students such age, gender, race, culture, disability, or social situation to create an environment that makes learning interesting and worthwhile for the students, which encourage students to free included in the learning process as the topics being discussed feel relevant and useful to them.

### 3.4. Humanistic trends in vocational education and training systems.

Trends of the formation of a common vocational educational space are due to the development of the most skilled workers for the labour market of the future. An important vector of the development of the most skilled workers for a labour market of the future within the vocational education and training sector is the humanistic trend, contributing to the formation of the personality, the formation of the value attitude to the labour market. However, it is very important to study how a humanistic trend creates a better educational experience for the students. In particular, whether the pedagogical experience gained through a humanistic approach can both attract and retain the attention of the students in vocational education and training system. The important problem of vocational education and training system is the formation of value humanistic relations of

students to the labour market of the future in era of information technologies, which should determine the relevance of the skills of the employee of the future. Therefore, the realisation of the paradigm of the humanisation of education in the modern electronic informational and vocational education learning environment is of particular importance, which determines the importance of the realisation of the humanistic trend in vocational education and training in modern conditions. So, to begging is to look at the idea of humanism in education, which is a worldview, where in the centre of education is the idea of student as the highest value. The students are looking for themselves in this world, looking for the knowledge and skills that would give meaning to their lives. Within the framework of humanistic pedagogy, a vocational education and training school is considered as a spiritual ladder, a ladder of the ascent of the soul, a spirituality of a growing student. The teacher is a carrier of spirituality, culture, tastes, love, knowledge, wisdom, which their pass to the students.

Hence, the humanistic trend in vocational education and training involves the formation of **human values** of students based on teacher's ability to understand the students, both the attention of the teachers to the feelings and emotions of students, and involvement of students in the process of acquiring knowledge. In a context of vocational education and training, the realisation of the humanistic trend arises most acutely. These are issues related to the formation of student's personality in relation to the chosen profession, not only with a positive, but also with a negative impact of a profession environment on the student's personality, issues related to the qualities of the person that need to be formed in students in relation to the skills needed at the labour market. Ideally, the humanistic trend in vocational education and training involves; firstly, the students mutual aid, co-creation between themselves and with the teachers, the formation of students' interpersonal skills. That is, the formation of skills to build human

relationships, the ability to engage in a dialogue, interact, work in a team, and create collective projects "**images of the future**" and development of creative abilities. Secondly, the humanistic trend within vocational education and training contributes to the formation of students' universal competences, such as teamwork and leadership, communication, listening, emotional intelligence, intercultural interaction, self- organisation, and self-development skills, which imply the creation of conditions for the active role of the students in the teaching and learning process by taking into account their interests. The personality of the student is placed in the centre of teaching and learning process. For example, modern electronic informational and educational environment in vocational education and training provides the students with the opportunity to showcase their activity at online classes and at the virtual exhibitions. A virtual exhibition can be provided via a school website.

So, in the slogan of **Lifelong Learning** in modern education, in the context of the vocational education and training systems, it is important not to miss the human dimension, not to lose the student's identity in the flow of information, skills and knowledge. Modern students must possess such competencies that allow them to work in the digital informational and educational space and at the same time remain a person, that should have a value attitude to the world and to a person. A person is the goal and measure of all of things. So, a modern student should possess competencies that are contextualised based on student experience. So, the centralisation of the pedagogical process on the personality of the students contributes to the cooperation of the students among themselves, the rallying of the teachers and the students. But the classroom is necessary only as a tool. Hence, such a school system is the vocational education and training school of the future. Its goal fully contributes to the realisation of the humanistic trends in education that involve the formation of comprehensive (the intellectual, moral, and physical development) as well as the harmoniously developed

personality of the students, taking into account both their abilities and inclinations, as well as taking into account value attitudes formed in them. The intellectual, moral, and physical development of the students must be in harmony.

## CASE STUDY. Humanistic contextual vocational education and training

### 1. Teaching things contextually, with one subject

Just as one subject can be taught in the context of all others, all subjects can be taught in the context of one. There is not a single characteristic, personality trait, behaviour, or manner that one cannot find, learn through humanistic contextual education. Humanistic contextual education gives insights into life, the learning process is a seer of life. So, modern humanistic contextual vocational education and training is the kind of education that exposes the students to new cultures, new social and economics contexts by reflecting on students' lived experiences; something much needed in today's shrinking world. Everything can be taught with reference to one subject in specific context and experience of an individual student: completing the contextualisation of the knowledge, skills, and attitudes. So, vocational education and training becomes student-centred, education must be for a student, but not one part of the student. Thus, a progressive vocational education and training is the one that is centred around the students rather than subject, course or expertise. Humanistic contextual education allows educators to reimagine vocational education and training and create models that educate a student as a whole, imparting not only textbook knowledge but life skills such interpersonal, listening, communication, emotional intelligence skills. A culture of respect, trust, and responsibility is thus inculcated in both the students and teachers, which creates the classroom where there are no bells that ring to signal the end of class periods. Students are trusted to keep track of their own time, just as they

would need to do later in the workplace. Students can organise their own projects and work in groups of their choice. Both students and teachers are included in the decision-making process of what they learn as the curriculum is a project based. The teachers lead the activities in the role of a facilitator. Then, the criterion on which students graded is work ethics.

Traditionally, students have been encouraged to compete with others and come first. But at the workplace, they need to totally reverse this behaviour, and work in teams, in mutual cooperation. Somewhere between a college and career, the students are required to pick this new behaviours up. But humanistic contextual vocational education and training makes students help each other and see the benefit there is to be derived when competition is replaced by both cooperation and organisation. Indeed, cooperative organisation is the fundamental principle behind social evolution in every field of life. The labour market is an organisation of people, structures and the relationships between them. But the true power of organisation is rarely brought forth with sufficient clarity and emphasis on only classroom theoretical knowledge. Hence, to understand the idea in its entirety, the teacher has to be one who thinks contextually and teaches creatively based on considerable interpersonal, listening, communication, emotional intelligence skills. Such a teacher is able to consider the needs of the students and use props and technology tools to make classes more interesting and effective, analogies to explain, biographies to inspire and arts to make ideas clear. A comprehensive, student-centred approach in vocational education and training makes students complete and prepares them to face the challenges of the today more changing and competitive labour market. So, contextual vocational education and training helps students develop this perspective. There are a number of initiatives many of the vocational education and training schools in Norway take in this regard. The concept of service learning is one attempt, which is an educational approach that combines book learning with

real world work experiences. The students are given an opportunity to apply their classroom learning to support and enhance the community as part of their education process, which address the contextual, motivational, multidisciplinary needs of students. Apart from academics needs, students are taught creative pursuits; interpersonal, listening, communication, and emotional intelligence skills as the means to developing a good image and be sensitivity to others.

## 2. Educating the person, not the subject

The vocational education and training sector in Norway wants to pay attention to the creation of a modern, safe digital educational environment that ensures a high quality and accessibility of education of all types and levels. The flexibility and accessibility of education of all types and levels allows vocational education and training schools to provide interactive digital educational environment, thus realising one of the principles of the humanistic trends in vocational education and training. So, the humanistic paradigm of vocational education and training smoothly passes into electronic informational and educational spaces, providing students, who are in different regions of the country, with equality in education. Various educational offers with a focus on distance class in the field of vocational education and training are realised in Norway, which further expand the use of ICT in vocational education and training. So, the realisation of these educational offers creates educational opportunities for students at a campus, in rural areas, and in the workplace, such student who have jobs while studying, the same. The goal of educational offers is to exchange high quality digital teaching materials in schools, to improve the quality of vocational education and training and the educational opportunities of students. To educating the person, not the subject; teachers and students with previous experiences in a specific field or profession are invited to conduct classes for students located in remote areas. Through the distance class offers, schools in remote rural areas can



access classes provided by schools in urban areas with the rich digital educational resources. At the same time, the digital technologies are aimed at improving the quality of education.

The problem of the quality of vocational education and training goes beyond the traditional concept of educational achievements, career or profession choice and involves the formation of the knowledge, skills, attitudes, or behaviours that can meet the requirements of the media and information literacy by the labour market. It is thus necessary to form not only the students' knowledge, but also to develop their ability to process information, to cooperate and to learn in the age of information and communication technologies such as: (1). *The ability to think critically and solve problems;* (2). *The ability to collaborate and the presence of leadership qualities* (3). *Flexibility and ability to adapt to constantly changing conditions;* (4). *Initiative and enterprise;* (5). *The ability to communicate effectively in oral and written forms;* (6). *The ability to find and analyse information;* and (7). *Curiosity and imagination.* This is the product of the **student-centred and teacher-guided** model, that heavily relies on the teacher levels of interpersonal, listening, communication, and emotional intelligence skills. At the same time, humanistic pedagogical paradigm implies not only the choice of the students, but also the formation of students' skills to be responsible for their choices. The students not only make choices, for example, they choose the training modules, but they are also responsible for the learning outcomes. An idea of student self-actualisation that describes the needs of the student, which cause the students to seek higher achievements, as when students themselves discovers and independently learns knowledge, and develop the skills and attitudes that influence their behavioural changes. Hence, the task of the teacher is to direct the intellect of the students to the development of personality in order to help the students learn about the world around them and build value relationships with this world.

At the same time, a teacher is faced with the task of realisation of the humanistic trends in vocational education and training in the electronic informational and educational age. The realisation of the humanistic trend in vocational education and training requires overcoming the emotional barriers to our communication while using technology. Students who are accustomed to the constant and daily use of technology, consider entering into a real dialogue with other people too risky for themselves, which demonstrate the lack of both listening and emotional intelligence skills. Indeed, technology has changed the process of thinking and communication as a human dialogue in the digital age is reduced to a controlled transaction that is not the genuine interaction necessary for the students. Media makes communicants, participants of a dialogue, just meet certain requirements set forth by an instructor, which contributes to passivity, broken attention and a sense of social isolation of students. Humanistic contextual vocational education and training take place, if there is a teacher to teach, and the interaction of the teacher and the student, the dialogue between them contributes to the building human relations, the humanisation of human relations. So, teacher interpersonal skills take into account the cultural and educational environment and considers the interaction, the true live dialogues of students among themselves and with the teacher. Thus, the more technologies penetrate the life of a modern student, including the educational system, the more natural component of human life in education are lost. From a point of view of emotional intelligence skilled teacher, the main goal of modern education is not to prepare students for life in a world that already exists, but to prepare students for life in a future world, to represent this world together with students. And tomorrow world is digital. But at the same time, the question arises among the students whether they would like modern information and communication technologies should solely be used in classes. Finding answers to this question is very interesting part of humanistic trend in vocational education and training. Ideally, most students prefer a real interaction between the

teachers and the students, the human interaction. But the students have to combine study and work would prefer distance education since it helps them a lot. But when it becomes to the professional and personal qualities that the students value most in a teacher; students prefer a teacher's professionalism, adding that they prefer creative teachers, teachers who are passionate about the subject they teach, and teachers who are friendly, capable of showing empathy. Thus, in the conditions of the digital world and humanistic contextual vocational education and training, students put at the first place the human dimension, the personal qualities of teachers: the interpersonal, listening, communication, and emotional intelligence skilled teachers.

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