

# Case study Norway

## The future of vocational education and training in Europe Volume 2

Delivering IVET: institutional diversification and/or  
expansion?

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# 1. Introduction

In general, the years from 1995 to 2020 can be characterized as a period of relative stability and continuity in the Norwegian IVET system. There have been changes and adjustments in the structure and content of the VET along the way, and we will return to these later. However, the main elements that were introduced through a major reform in the mid-1990s, known as Reform 94 (R94), have until now remained more or less intact.

Reform 94 was developed against a backdrop of high relative youth unemployment following the economic downturn of the 1980s. The main thrust of the reform was to give all young people a statutory right to three years in upper secondary education, either in a vocational or in a general academic program. The overall aim was to ease the transition from upper secondary education to the labour market or to higher education by reforming both the structure and the content of upper secondary education. The Reform was developed and implemented by a social democratic government in close cooperation with the labour market partners (Nyen & Tønder, 2020).

With Reform 94, apprenticeship training was integrated in the institutional framework of upper secondary education. Two years of school based education followed by two years of apprenticeship training in a company became the standard model in all vocational programs. This model, often referred to as the 2+2 model, is still the main model in the Norwegian IVET system. The reform was ambitious, as it presupposed development of new vocational trades and apprenticeships in industries and sectors without prior traditions for apprenticeship training, such as public and private services. The aim was that about one third of the youth cohorts should follow the main model and sign an apprenticeship contract in the last part of their vocational training. Roughly speaking, this meant that the reformers aimed to double the scope of apprenticeship training (Høst, Reegård, Reiling, Skålholt, & Tønder, 2015).

The transition from school-based education to apprenticeship training in the third year was, and still is, a critical juncture in the Norwegian IVET model. Two system safeguards were introduced with Reform 94 (Michelsen, Olsen, & Høst, 2014). First, if a student were not able to find an apprenticeship, he or she was entitled to a practical school-based alternative, leading to the same formal vocational qualification as apprenticeship. A second system safeguard provided an opportunity to transfer from a vocational program to general studies through a third supplementary year in order to qualify for higher education. Both of these schemes are controversial because of their inherent potential to undermine the apprenticeship scheme within the main model.

In some respects, the IVET model introduced with Reform 94 has been quite successful. There has been a significant increase in the number of apprenticeships in the years after the implementation of the reform. In addition, around half of the youth cohorts in Norway enters a vocational program in upper secondary education, which could be interpreted as an indicator of attractiveness. However, there are also major challenges in Norwegian IVET, such as high dropout rates, a consistent lack of apprenticeships and a high transfer rate to general studies within some vocational programs. Different governments have tried to address these challenges by introducing changes in the content and structure of IVET. We will describe these reforms and changes further in the following sections.

## 2. Blurring of boundaries between general education and IVET at upper secondary level

Reform 94 (R94) was a comprehensive reform, but the integration process in upper secondary education had already started two decades earlier. In 1974, the Storting (the Norwegian parliament) decided to bring former gymnasiums and vocational schools together in combined schools under a common legal framework. Two committee reports, the Gjelsvik committee and the Steen committee, laid important foundations for the decisions. The new law on upper secondary education entered into force in January 1976.

Reform 94 has been referred to as a rights reform, a structure reform and a content reform (NOU 2003:16). It was a *rights reform* in the sense that all 16-19 year olds got a statutory right to upper secondary education. The intention was that all programs should lead to a general certificate of upper secondary education or to a vocational qualification corresponding to labour market needs. From an educational perspective, an important aim was to increase efficiency, especially in vocational education, by reducing horizontal moves from one basic course to another. The *structural reform* entailed a significant rationalization and merging of courses, from more than 100 to only 13 courses in the first year of vocational programs. In the second year, however, the structure was still quite specialized, with around 100 vocational courses leading to 224 different occupational trades.

Health and social care was one of thirteen basic courses. Students in health and social care could choose between eight vocational courses in the second year, leading to ten different occupations. Six of these occupations were school-based educations, deviating from the 2+2 model and reflecting long traditions for school-based education within the public sector. The largest of the school-based educations in terms of student numbers, was the auxiliary nurse education. In addition to this established school-based education, R94 introduced the care worker as a new apprenticeship trade. The establishment of the care worker education was strongly supported by Kommuneforbundet, the trade union for municipal employees, but also by the VET system and by politicians who wanted a more generalist education aimed at integrated nursing and care services in the municipalities. By introducing the care worker as an apprenticeship trade, the aim was to raise the status and wages of work often performed by unskilled female employees in the municipal sector. The R94 curricula for the school-based auxiliary nurse education and the care worker education following the main model were quite similar. The main difference was a slightly stronger somatic orientation in the auxiliary nurse education and a correspondingly stronger care orientation for the care worker education (Høst, 2002).

The foundation for education in electrical trades was another basic course in Reform 94, leading to five vocational courses in the second year and 27 different occupations. In 1994, 23 of 27 occupations within this programme were apprenticeship trades, and four were school-based educations. In contrast to the health and social care sector, electrical trades represent a part of working life with established traditions for apprenticeship training. The training to become a skilled electrician has followed the apprenticeship scheme since the 1950s. In order to become an electrician in R94, a student would move on to a course in electrical power in the second year and then start an apprenticeship in the third year. For electricians, the

apprenticeship period is 2.5 years, and this education is thus another education deviating from the 2+2 model, but in a different direction.

Reform 94 was a *content reform* in the sense that the curriculum for upper secondary education was revised. Goal-oriented curricula were introduced formulating goals for what the students should be able to do after completed education (Vibe, Frøseth, Hovdhaugen, & Markussen, 2012). The national curriculum consists of the “core curriculum”, specific subject curricula and a framework regulating the distribution of teaching hours per subject.<sup>1</sup> The core curriculum sets down the general values and objectives of the education and is common to compulsory and upper secondary education (general and vocational). The curricula in all vocational programmes at the upper secondary level consist of general subjects and vocational subjects. With Reform 94, a common curriculum structure was introduced for all vocational programmes, and there was a significant increase in the scope of general subjects, from 13% to 31% of the total instruction hours in the two school-based years (Spetalen, 2017). The general subjects in vocational programmes are Norwegian, English, mathematics, natural science, social science and physical education. The increased emphasis on general subjects was supported by the social partners at the central level. It was argued that all students, in vocational as well as in general programmes, would need a broad competence base in order to meet changing skills needs in the future. In addition, it was argued that it was important to reduce the barriers between vocational programmes and academic programmes in order to ease the transition from vocational programmes to higher education (NOU 2019: 25). Table 1 shows the distribution of teaching hours per subject for vocational programs in Reform 94.

Table 1 Distribution of teaching hours in vocational programs. R94.

Subjects	Year 1 - hours	Year 2 - hours
<i>General</i>		
Norwegian	56	56
English	56	56
Mathematics	84	
Natural science	56	
Physical education	56	56
Social sciences		56
Total – general subjects	308	224
<i>Vocational subjects</i>	616	700
<i>Optional subjects</i>	56	56

In the first years after the implementation of Reform 94, there was a significant increase in the number of apprenticeships, mainly due to the establishment of new vocational trades and the expansion of apprenticeship training to new sectors. In addition, a new economic upturn as well as financial support from the state spurred the implementation of the reform in the private sector. The number of new apprenticeship contracts increased from around 10 000 in 1993 to 17 000 in 1997 (Michelsen, Høst, & Gitlesen, 1998). In spite of this quite remarkable growth, a significant number of applicants every year (around 30 percent) did not succeed in

<sup>1</sup> [https://eacea.ec.europa.eu/national-policies/eurydice/content/teaching-and-learning-general-upper-secondary-education-39\\_en](https://eacea.ec.europa.eu/national-policies/eurydice/content/teaching-and-learning-general-upper-secondary-education-39_en)

getting an apprenticeship. The education authorities related the mismatch between supply and demand of apprenticeships to the structure of IVET, with a high degree of specialization in the second year. It was argued that too narrow courses made dimensioning and transitions to apprenticeships difficult. The high degree of specialization also led to recruitment problems in some trades. If the number of students applying for a course was too small, there was a risk that the course would not be offered due to high costs per student.

In 2006, a new comprehensive reform, named the Knowledge Promotion Reform (KL06) was implemented. The reform was initiated by a coalition government consisting of the Conservative Party, the Christian Democratic Party and the Liberal Party. There were three main arguments for the reform. First, Norway had in the last decades evolved from being a rather homogeneous to a more pluralistic society. The new reform should address the greater ethnic, religious and cultural diversity in society, but also diversity in terms of individual needs, abilities and interests. This rationale for a new reform can be understood as a critique of the reforms of the 1990s<sup>2</sup>, where the ambition was to strengthen the unitary and comprehensive school system (Aasen et al., 2012). Secondly, the authorities pointed to changes in working life with a development towards the knowledge society and a demand for a lifelong perspective on education and learning. The third reason was related to globalization and the need to compete in international market, with knowledge and skills being the most important competitive factors in a global knowledge economy. In the view of many, results from the PISA, TIMSS and PIRLS surveys in the early 2000s confirmed the assumption that Norwegian school students were mediocre in reading, math and science. The survey results contributed to the call for a new reform and legitimized a stronger emphasis on basic skills (Spetalen, 2017; Aasen et al., 2012).

The KL06 continued the trend from R94 towards broader vocational programs. Nine vocational programs replaced the 12 basic courses in the first year, and the number of courses in the second year was reduced to around 50. The main arguments for the structural changes were that broader courses should provide greater opportunities for students to choose their desired education regardless of geography, social background and age. In addition, wider entrances to vocational programs would make it possible to postpone the choice of occupation for those students who were uncertain. From a labour market perspective, it was argued that an educational structure with broader courses would reduce the mismatch between supply and demand for apprentices (St. meld. nr. 30 (2003-2004)).

To compensate for broader courses, the in-depth study project (later named vocational specialization), was introduced as a new subject in the first and second year. The main aim was to give VET students an opportunity to gain experience from relevant occupations through practical work in school workshops or projects or through work placements in firms. From a pedagogical perspective, it was argued that the opportunity to do practical and relevant work in authentic settings was important in order to increase student motivation and prevent dropout. In addition, labour market organizations argued that increased specialization and more relevant work experience was important in order to prepare the students for apprenticeships. The evaluation of the reform confirmed that the introduction of the in-depth study project had a positive impact on student motivation and gave students a stronger basis for choosing a

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<sup>2</sup> Reform 97 was a reform in primary school and lower secondary education. With the reform it became mandatory to start school at the age of six.

vocational specialization and an occupation. In addition, work placements, especially in the second school year, became an important arena for finding an apprenticeship (Nyen & Tønder, 2012).

With KL06, the health care worker, an education following the 2+2 model, replaced the auxiliary nurse education as well as the care worker education. The education authorities and the social and health authorities supported the introduction of the new education. From an educational perspective, the replacement of the school-based auxiliary nurse education with an education following an apprenticeship model was consistent with a long-term rationalization process of upper secondary education. The health and social authorities wanted to establish a clearer professional profile within nursing and care in order to increase the recruitment of young people to the sector. An contributing factor on the trade union side was the merger of the Health and Social Welfare Association with the Trade union for the municipal employees in 2003. With this merger, the auxiliary nurses abandoned the principle of professional organization in favour of a sectoral organization, thereby paving the way for the new occupation (Høst, 2007).

Apart from the introduction of the health care worker, the two vocational programmes Health and Social Care and Electrical trades were not strongly affected by the structural changes in KL06. The name of Health and Social Care was changed to Healthcare, childhood and youth development. The number of vocational courses in the second year was reduced from eight to six, leading to ten different occupations. Within Electrical trades, there were still five different courses in the second year leading to 21 different occupations. Table 2 shows the distribution of teaching hours per subject in KL06.

Table 2 Distribution of teaching hours in vocational programs. K06.

Subjects	Year 1 - hours	Year 2 - hours
<i>General</i>		
Norwegian	56	56
English	84	56
Mathematics	84	
Natural science	56	
Physical education	56	56
Social sciences		84
Total – general subjects	336	252
<i>Vocational program subjects</i>	477	477
<i>In depth study program/ vocational specialization</i>	168	253

With the KL06 all curricula, from primary education through upper secondary education, were revised in order to strengthen basic skills like reading, writing, mathematics and digital competencies. Basic skills were integrated into the competence goals. For example, in the curriculum for the apprentices in health care work, basic skills in mathematics are formulated as follows<sup>3</sup>:

<sup>3</sup> <https://www.udir.no/kl06/hea3-02#>

*Being able to calculate in the health worker subject means calculating and assessing costs related to various activities in homes and institutions. Numeracy also means being able to calculate and assess quantity, goals and weight related to the assessment of the health status of users and patients.*

For apprentices training to become electricians, the following passage expresses the understanding of basic skills in mathematics in the curriculum<sup>4</sup>:

*Being able to calculate in the electrical profession means performing calculations in planning and assessing dimensions in the systems, assessing measurement results and understanding the connection in electrical circuits and systems. It also involves making simple financial calculations related to price offers to customers and own salaries in productivity systems.*

The evaluation of the reform showed that there were large variations in how basic skills were understood in schools, and in how far basic skills had become an established, common concern within each school. Furthermore, the changes in the curricula did not seem to have any major impact on apprenticeship training in firms. In general, trainers felt that the new curricula were not sufficiently vocationally oriented (Aasen et al., 2012, pp. 12-13).

The evaluation of the reform also showed that an increasing number of students in vocational programmes used the opportunity to transfer to general studies through the third supplementary year instead of completing their vocational training. This trend seemed to be strengthened by the KL06 reform and can be interpreted as academic drift in upper secondary education (Vibe et al., 2012). The share of students who switch to general studies are highest within healthcare, childhood and youth development, service and transport, media and communication and agriculture, fishing and forestry. Many students within the healthcare, childhood and youth programme seem to choose this program not primarily to become skilled workers, but rather as an entrance to the sector by applying for higher education through two school based years in a vocational programme followed by the third supplementary year. Thus, an arrangement that was intended as a safety valve in R94 has turned out to become a planned educational route for a large share of the students in vocational programmes (Høst, Karlsen, Skålholt, & Hovdhaugen, 2012).

In 2015, the Ministry of Education initiated a review of the structure of IVET in dialogue with the social partners. The aim was to strengthen the quality and relevance of vocational education and training and to adapt the education system to working life's need for qualified labour. In the autumn of 2020, following the review, the number of vocational programmes was expanded from eight to ten, and some vocational programmes and subjects were renamed. New vocational courses and training occupations were introduced, others were merged or discontinued due to a lack of demand or perceived relevance in the labor market. The current IVET structure (2021) consists of ten vocational programs (Vg1), 53 vocational courses (Vg2), around 185 apprenticeship trades and nine school based vocational courses (without apprenticeship training).

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<sup>4</sup> [Læreplan i elektrikerfaget Vg3 / opplæring i bedrift \(ELE3-02\) \(udir.no\)](#)



A new comprehensive curriculum reform, *Fagfornyelsen*, (LK20) is currently being implemented in primary schools, lower secondary and upper secondary schools at the same time as the structural changes in IVET. LK20 was first developed in relation to general programmes and subjects and later extended to vocational courses. The new curricula for the first year in vocational programmes were implemented in the autumn of 2020. The new reform reflects global trends with an emphasis on competence-based as opposed to content-based curricula. At the same time, the reform aims to strengthen the emphasis on values in schooling (Karseth, Kvamme, & Ottesen, 2020). Three interdisciplinary themes are to be integrated in all subjects. These are *democracy and citizenship*, *sustainable development* and *public health and life skills*.

A new government white paper, *The Completion Reform*, was presented to the Parliament in the spring of 2021 (Meld. St. 21 (2020-21)). The main aim of this most comprehensive reform of upper secondary education since Reform 94 is to increase the number of students who complete upper secondary education, including adults as well as young students. The stated goal of the government is for nine out of ten students to complete upper secondary education. The most important measure in the Completion Reform is to extend the statutory right from three years of education to a right to complete upper secondary education. Another important measure is to introduce a right to vocational (re-)qualification for anyone who has completed upper secondary education, in either a vocational or an academic programme. Both measures will have administrative consequences for the counties, who need to increase their capacity for students, including adults, in upper secondary education.

### 3. Relationship of IVET at upper secondary levels with that at higher levels

In Norway, IVET is primarily offered at the upper secondary level (ISCED level 3). The most important vocational education and training at higher levels is offered at vocational colleges (VC) ("fagskoler"). Admission to technical vocational colleges, like studies within electronics, require a relevant trade certificate/journeyman certificate, or the minimum of five years relevant practice and proven equivalent competence in the general subjects offered at the first and second years at vocational studies at ISCED 3 level. For health care, relevant school-based education at the upper secondary level may replace the trade certificate. Vocational studies are generally a means by which VET students can continue their studies to higher levels, and not a means for those from the general educational pathway to take a vocational pathway. This, however, depends on the field of study. In addition, VC education normally function more as CVET than IVET, but this also varies by field. There is no sign throughout the period of investigation that IVET provision at level 5 has affected the provision of IVET at level 3. In the following, we will give a more detailed description of the vocational colleges, as well as their relationship with IVET at the upper secondary school level.

Technical colleges were established in the 1960's. Their purpose was to offer a more practical education than the colleges of engineering established during the same period. The education offered at technical VCs had, and have, strong company ties, offering education demanded by the working life. In addition, the education provided important further education for students

without academic upper secondary background. The number of students at VCs have increased the past 15 years. One reason for this is that educations that originally had few formal admission requirements, such as arts and mercantile studies offered in private schools offering post-secondary, non-tertiary education, were “upgraded” to vocational college education with the first Vocational Education Act of 2003. With this act, vocational colleges not only included educations building on vocational upper secondary education, but also those building on general studies from upper secondary school. The latter are studies corresponding to occupations not typically demanding a vocational upper secondary background (Skålholt et. al 2020).

The Norwegian vocational colleges are highly diverse regarding provision, size and quality. Altogether, there are currently 94 public and private vocational colleges, providing education for a broad range of educations and labour market sectors. Providers at this level offer courses and programmes of 6 months to 2 years duration. Providers design their own courses and curricula, with learning outcomes as an integral part of all programme designs. Programmes must be approved by the Norwegian Agency for Quality Assurance in Education (NOKUT), the agency responsible for accreditation and quality control (Reegård and Rogstad 2018). The subjects offered at vocational schools can be divided into six categories: 1) healthcare, childcare and youth development, 2) creative subjects, 3) economy and management, 4) technical studies, 5) maritime studies and 6) other (Skålholt et. al 2020). Today, health care makes up about 25 percent of vocational college studies, whereas technical studies make up 45 percent. Technical and maritime studies have a long history and they educate vocational workers to managers or specialists, such as vocational college engineers, maritime engineers and mates. For electricians, for instance, vocational college (or a Bachelor/MA) is vital in order to start your own business, as this education leads to a necessary exam (“installatørprøven”) (Skålholt et. al 2020):76). The competence plan of 2015 (“Kompetanseløftet”) represented a political commitment to education within health and social care, boosting the vocational college education in this field (Støren and Waagene 2015). The purpose of VC education for health care workers has been to offer in-depth knowledge and competencies for experienced workers, without being directly related to new positions in the working life. To illustrate the importance of the vocational colleges within electricity and electronics: of all apprentices within this field in 2003, 28 percent had embarked on vocational college studies in 2013, and 20 on higher education. The same number for health care students was 2 percent in vocational colleges, and 20 percent in higher education (Høst et al. 2019:28). Nevertheless, health care and youth work has grown a lot since 2010, encompassing 4550 students in 2019.<sup>5</sup>

It is important to note that vocational colleges are normally CVET – when workers with a trade certificate participate in part time vocational college studies alongside work. When young students enter full time studies at vocational colleges directly from vocational upper secondary school, we think of vocational colleges as IVET. Normally, both a trade certificate and relevant work experience (5 years) give admission to VC. Access to vocational colleges is based on an upper secondary qualification or validated prior learning. No practical work experience is required. However, many programmes, particularly those aimed at the health and social service sector, are designed as part-time courses, where students are required to work part-

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<sup>5</sup> Statistics Norway, Statistikkbanken

time and undertake project assignments at a workplace, often their own (Reegård og Rogstad 2018). Moreover, most students have some work experience before embarking on this education. This is especially the case with technical studies. These studies are offered at designated technical vocational colleges (“teknisk fagskole”), and they cover subjects within building and construction, industry and electronics.

Although vocational schools are normally CVET, there are both individual and institutional exceptions. Some individuals embark on these studies after completing upper secondary school without entering the labour market first, although work experience may be encouraged. Within maritime studies, however, we can regard vocational college education as a form of institutionalised IVET, as this education is often necessary to enter the labour market. Maritime vocational schools admit students with either a motor man or a seaman trade certificate from upper secondary school. They are then educated to become maritime engineers or mates at a vocational school (two years). This is reflected in the age of students. Data from 2018 show that the average vocational school student is 33,3 years old. Health care and youth work recruit mainly from health care workers. The average health care and youth-student in vocational college programs is 44 years old. The average student in technical studies is 33 years old. Within maritime studies, however, the average age is 26 years old. 70 percent of health care and youth students had a trade certificate when commencing VC education, while this apply to 89 percent of technical VC students and 90 percent of maritime students (and only 10 and 24 percent of students within creative and economic studies, respectively). Furthermore, within health care and youth work and technical studies, around 80 percent had a relevant job before entering VC (Skålholt 2020). The age distribution at vocational colleges have been stable between 2016 and 2020.<sup>6</sup>

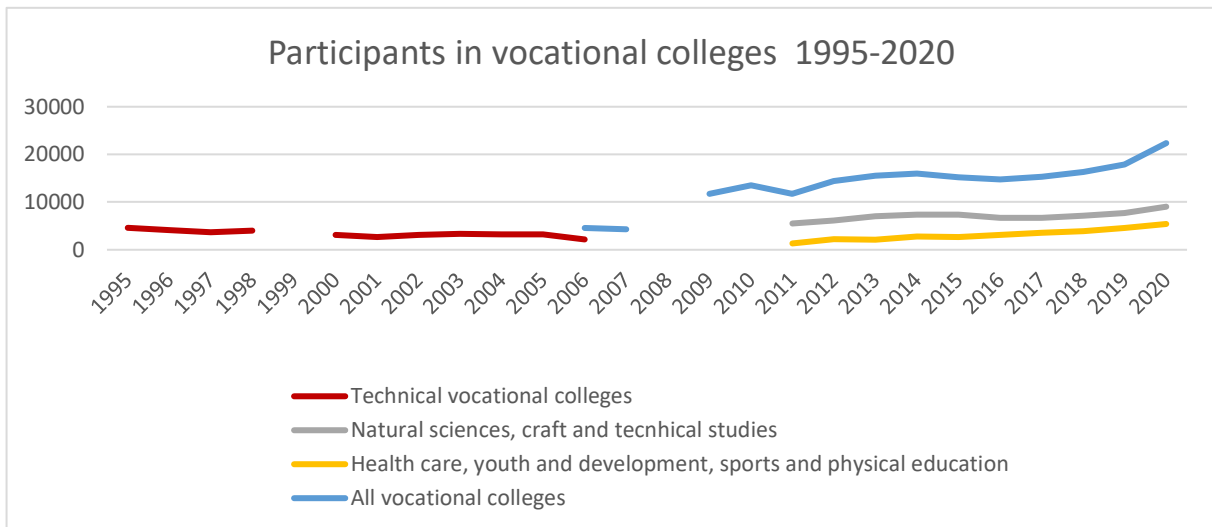
The past five years, there are about 15 000 vocational college students in Norway annually. While the number of educations offered have decreased slightly the past years, (there are now 898), there is a plan to increase the number of students places within health care and technical studies (NOU 2019).

Due to the status of the vocational colleges throughout the years, detailed statistics are hard to retrieve in the public statistics offered by Norwegian Statistics. From 1995 to 2005, only pooled statistics on participants in technical vocational colleges are publicly available. From 2007 to 2010, numbers represent all vocational colleges (2007). From 2009, they include also people participating in online courses. From 2011, more fine-grained categories are available (online courses included). In figure 3.1, “All vocational colleges” include all six categories. In addition, the graph demonstrates the numbers for two of the six studies in particular.

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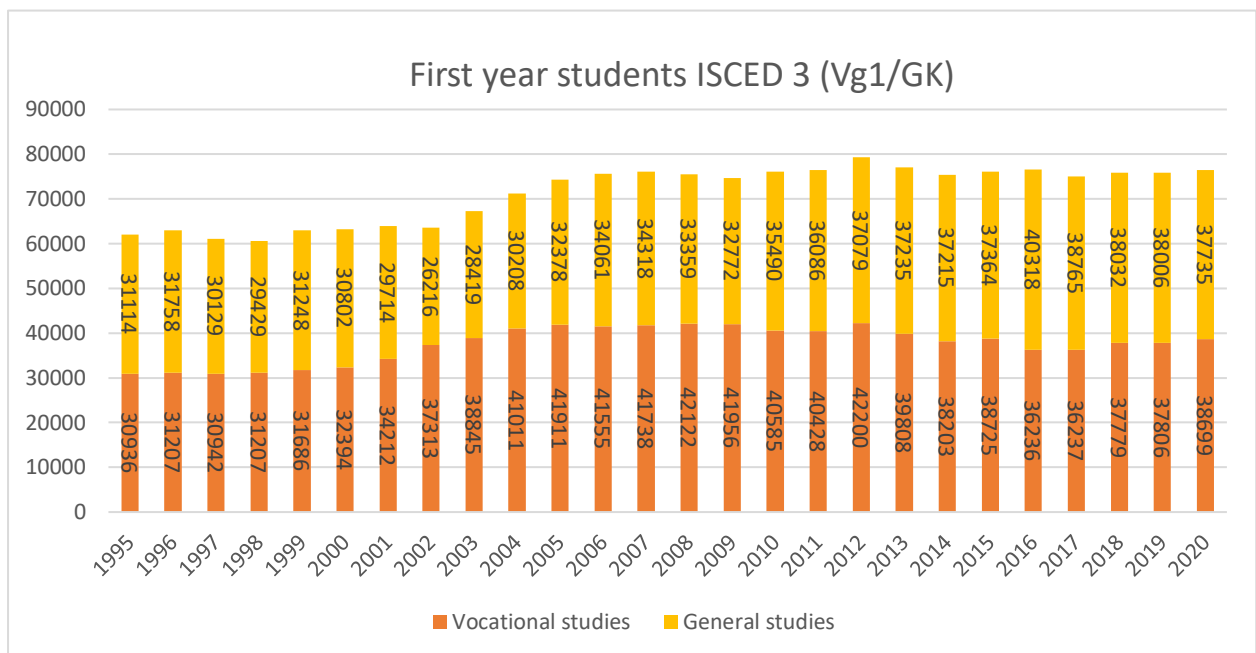
<sup>6</sup> Older numbers of age distribution are not publically available from Norwegian Statistics

Figure 3.1 Participants in vocational colleges 1995-2020<sup>7</sup>



For comparison, figure 3.2 demonstrates number of students studying toward level 3, both vocational and general studies.

Figure 3.2 First year students in upper secondary school<sup>8</sup>



<sup>7</sup> (Source: Statistics Norway: Statistisk Årbok and Statistikkbanken. Numbers from 1999 are missing. Information on subjects within these main categories are not made publicly available from Norwegian Statistics.

The category “technical vocational colleges” is not available since 2006. The category “natural sciences, craft and technical studies” include studies at technical vocational colleges.

<sup>8</sup> Source: Statistics Norway, Statistikkbanken

With the Vocational Education Act of 2018, the regulatory framework for vocational schools was changed. The act entails that vocational colleges are now included in the higher education system, and the education at this level is upgraded from level 4 to level 5. The act also entails a reframing of the credits student can obtain, from “vocational college credits” (“fagskolepoeng”) to “credits” (“studiepoeng”), which is the same name as the credits obtained from higher education. The reframing of the credits and the status as “higher vocational education” does not entail equality between credits from higher education and credits from VC, and a candidate cannot automatically accredit VC education as a part of higher college or university education. Furthermore, VC credits are not recognised as a part of European Credit Transfer and Accumulation System (ECTS) (NOKUT 2021). Candidates who have completed a two-year tertiary vocational education and training programme still qualify for some engineer educations and some technical educations at higher level (Reegård og Rogstad 2018). Moreover, 120 VC credits do give university and college admission certification (Utdanning.no 2021a)

A formal education degree from a vocational college must consist of minimum 30 credits. Nevertheless, accredited vocational colleges are allowed to offer short module based courses (equaling e.g. five credits) without applying for new accreditation. During the corona pandemic, the government has valued this flexibility.

Vocational colleges do not normally offer education longer than two years. In 2019, however, a new bachelor program in construction management was approved by NOKUT. The BA is offered by Høyskolen for yrkesfag (HØFY) (which translates to “Vocational university college”) established by six administrative counties in 2015. In theory, the BA may be defined as both IVET and CVET, in the sense that it requires upper secondary completion (not necessarily vocational upper secondary school – this is according to the act relating to universities and university colleges), and work experience is only considered “beneficial”. Students with a two-year vocational college degree within building and construction are able to accredit the three first semesters of the BA, but must take two online courses within mathematics and physics upon enrolment. Including both full time and part time courses, 20 students admitted autumn 2019, 40 students autumn 2020. Most students had vocational college background and relevant work experience.<sup>9</sup>

## 4. The changing relationship between IVET and CVET

As described in chapter 3, vocational colleges are an important part of CVET at higher levels. In addition, the new vocational bachelor program may represent a new development, where vocational education offered at level 6 gains foothold in the education system and the working life. This chapter deals primarily with CVET at level 3.

CVET encompasses all formal, non-formal and informal learning activities for the individual’s professional development. CVET includes not only people in employment, but also unemployed preparing for re-entry into the labour market (CEDEFOP 2015). Level 3 CVET in Norway encompasses adult apprentices, practice based trade certificate and, on-the-job trade

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<sup>9</sup> Conversation with expert

certificate (“fagbrev på job”), which was introduced in 2018. The relationship between IVET and CVET has been relatively stable in the period of investigation.

Level 3 CVET in Norway may be understood as IVET becoming a source of CVET. One has a statutory right to upper secondary education as adult from the year turning 25 years of age, called the ‘adult’s right’ (Sterri et al. 2015). The adults’ right applies if one has completed primary and lower secondary school or the equivalent in Norway or another country, but has not completed upper secondary education or training. The adults’ right also applies if one has completed upper secondary education in another country that has not been approved in Norway. Adults have the right to three years of upper secondary education, or more for vocational training if the required training period is longer. They also have the right to assessment of formal, non-formal and informal qualifications (Reegård og Rogstad 2018). With support from researchers and key stakeholders, the government has recently suggested to extend adults right to upper secondary school, and to make it easier to return to upper secondary education to achieve vocational competencies. The government also suggests to adjust level 3 education to adults needs, for instance by offering module based training (Meld.St.21 (2020-2021)).

Norwegian working life in Norway has a long tradition with formalising competences connected to work experience. Furthermore, the Norwegian education and training and VET system is available to older youth and adults, with formal and non-formal education and training (Høst 2008). This is made evident by the experience-based trade certification (EBTC) (“praksiskandidatordningen”), a scheme applying to people in employment, which was established in 1950. The Experience-based route allows people who can document long, varied and relevant work experience (equalling 25 percent longer practice than for a regular apprentice, normally five years) to register for the vocational trade examination, usually after taking a shorter theoretical course (Reegård & Rogstad 2018). The candidates do not need to pass general subjects, like Norwegian and history, but they must have passed an exam pertaining to their own vocational field before taking a craft- or journeyman’s exam (“fag- eller svenneprøve”). Some fields, like electronics, require an additional theoretical exam (Vilbli 2021a). EBTC constitutes a formalisation of skills and competence acquired through practice. This practice-based route is a commonly used qualification route in the Norwegian labour market, and accounts for about a third of all new trade certificates each year. It enables segments of the population with an otherwise low likelihood for completing upper secondary education to acquire formal qualifications at this level (Bratsberg et al. 2020).

While the EBTC applies only to people who have obtained several years of work experience, the new on-the-job trade certificate (OJTC), introduced in 2018, do not require the same elaborate work experience. Candidates in employment can get their training on the job, and obtain a trade certificate based on this training. So far, this scheme is not offered in all counties, and the opportunity to participate will vary between workplaces. At least one year of varied and relevant work practice is required in order to sign an apprenticeship contract (Utdanning.no, 2021b).

With the “adults’ right”, adults can also obtain a trade certificate as adult apprentices. Figure 4.1 demonstrate the number of participants in vocational courses and practice candidates, respectively.

**Figure 4.1 Adults 25 and older participating in vocational courses and (upper secondary school) 2015-2020 practice candidates<sup>10</sup>**

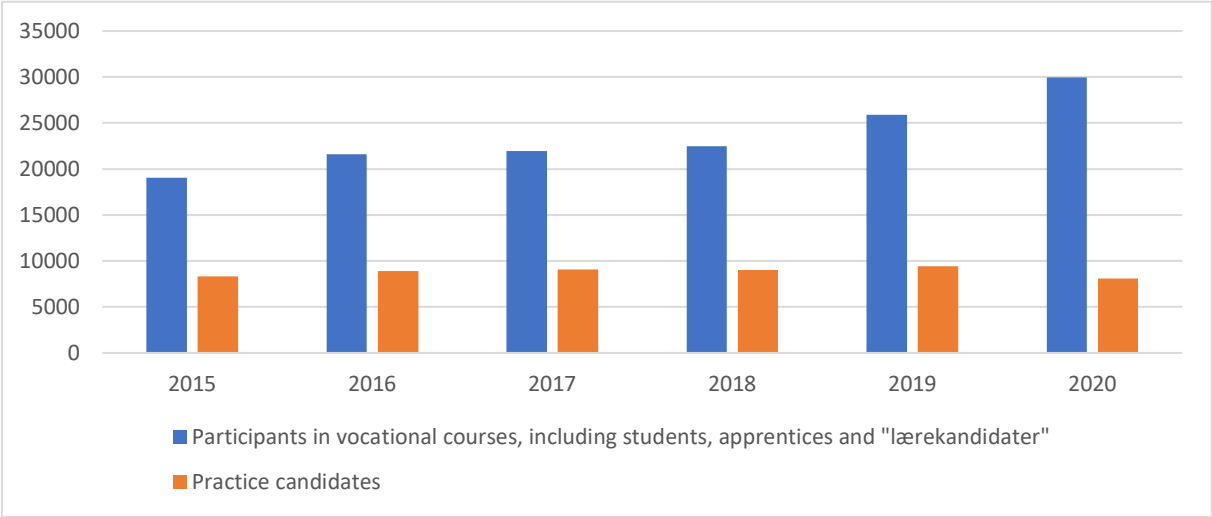
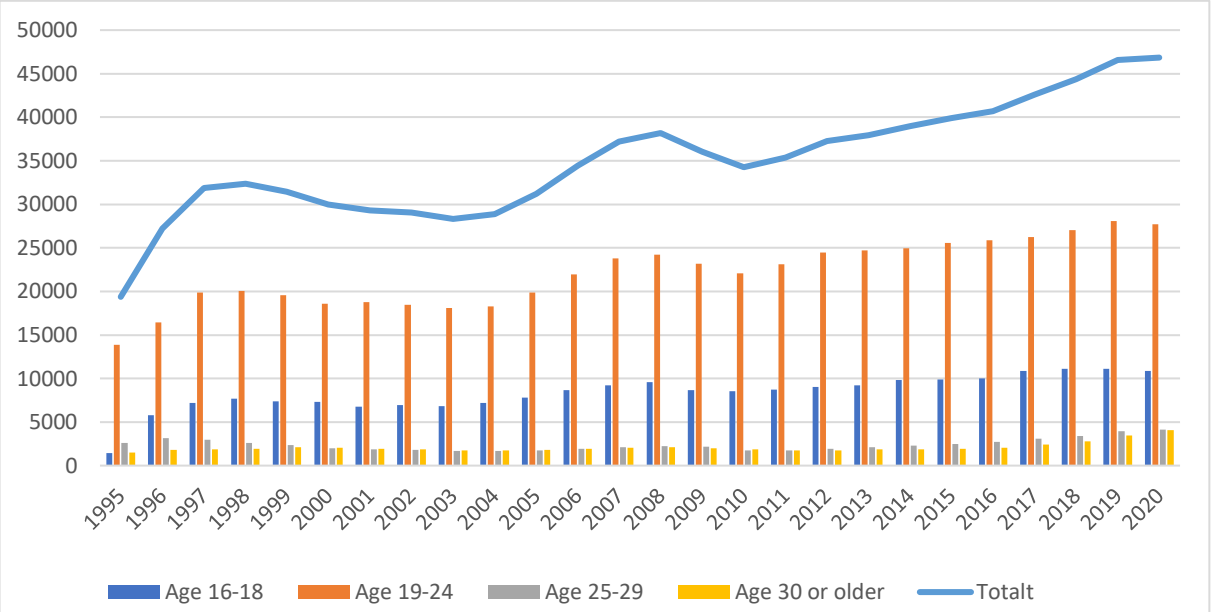


Figure 4.2 demonstrates the number of apprentices every year, by age, and figure 4.3 demonstrates the number of candidates (25 and older) obtaining the trade certificate, illustrating the importance of the EBTC.

**Figure 4.2 Number of apprentices 1995-2020, by age<sup>11</sup>**

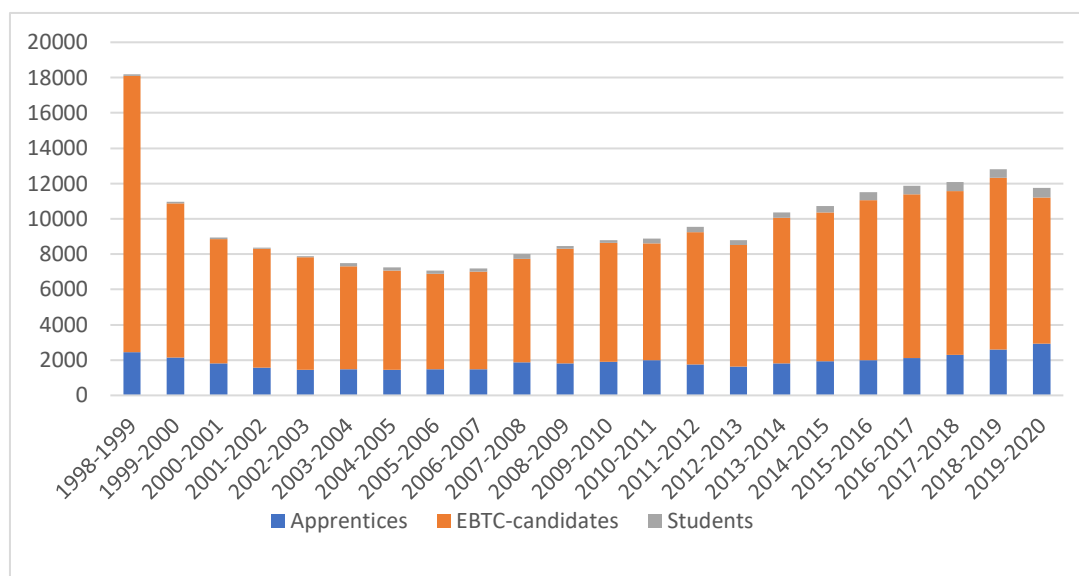


<sup>10</sup> Source: Statistics Norway, Statistikkbanken

<sup>11</sup> Source: Statistics Norway, Statistikkbanken .Age 18 and 19 are the most frequent. 16 and 17 year olds make up 100-300 apprentices annually. Ages over 30 are not specified in the register until 2006.

Source: Statistics Norway, Statistikkbanken, Statistisk årbok 1997-2004

**Figure 4.3 Passed craft- or journeyman's certificates<sup>12</sup>**



Non-formal tertiary vocational qualifications have by and large maintained its role in the labour market during the period of investigation, primarily in the private sector. The Master Craftsman's Certificate (mesterbrev) is the most important of such qualifications. The Master craftsman education (leading to the Master Craftsman Certificate (MCC)) is CVET for adults who hold a trade or journeyman's certificate, who have several years of relevant work experience and wish to start up their own business or hold a managerial position in a craft enterprise. This is a public education and certification scheme, organised under the Norwegian Ministry of Trade, Industry and Fisheries (Reegård og Rogstad 2018).

## 5. Changing institutional arrangements

There have been few changes in the institutional arrangements at the upper secondary level during the period 1995 to 2020. Most schools at the upper secondary level combine vocational and general education, offering separate general and IVET programmes. Few schools are wholly devoted to vocational provision.<sup>13</sup> In 1995, there were 649 upper secondary schools in Norway, 523 of them public. In 2020, there were 413 upper secondary schools, 318 of them public.<sup>14</sup>

The lack of apprenticeship contracts has been an issue that has gained attention through decades. Since 1994, pupils have a right to upper secondary education, but no right to an apprenticeship contract. Throughout all the reforms and legislations in the system of VET in Norway, the tripartite cooperation has formed a core. The first Social Contract between

<sup>12</sup> Source: Statistics Norway, Statistikkbanken

<sup>13</sup> Details on numbers of schools offering only vocational education cannot be retrieved from public registers at Statistics Norway.

<sup>14</sup> Source: Statistics, Statistisk årbok 1997, Statistikkbanken.



organisations and government was signed in 2012. The parties undertook to provide more apprenticeships and improve the cooperation between authorities and organisations. Especially within health and social care, this has led to new contracts. Still, 3 out of 10 applicants do not succeed in getting an apprenticeship, and this has been more or less constant since 2011. The number of applicants is higher than the number of new contracts. Whether apprenticeship contract should be a statutory right has been debated several times. As for now, and since 1994, the counties are responsible for offering an alternative to students lacking apprenticeships. This training, often termed “alternative Vg3” has been unpopular and the quality of training has varied. Since 1998, the share of exams (both passed and failed) by “alternative Vg3 students” within the age group 19-21, has made up only around 3-4 percent (and between 2006 to 2012, only about 1 percent).<sup>15</sup>

In 2021, the government proposed a “completion reform” (“fullføringsreformen”) (Meld.St. 21 (2020-2021), where the improvement and institutionalisation of alternative Vg3 was one of the suggestions. Whether this represents an important change in the institutional arrangement of IVET at upper secondary level remains to be seen.

The Vocational Education Act of 2018, pertaining to vocational colleges, was described in chapter 3. In addition to a renaming of the credits and the change from ISCED level 4 to 5, the inclusion of VC in the higher education system also entails a statutory right to parental leave for VC students, and the opportunity for VCs to be a member of a student welfare organisation (“Studentsamskipnad”) (NOKUT 2021).

## 6. Conclusion: Harmonisation, diversification, pluralisation, academic/vocational drift

IVET in Norway is generally provided by the counties at upper secondary schools which provide both general and vocational programmes. The main model for vocational education and training is that the first two years are school-based, with a mix of general and vocational education, and two years of apprenticeship training (the 2+2 model). The 2+2 model has been criticized for being too school-based and too centered around theoretical subjects (both academic and vocational). Despite this, little effort has been made in order to change the model. There is a flexibility within this model where students can chose to spend three or four years as an apprentice instead of two, while concurrently following the same curriculum as in the two first years of the main model (0+4 or 1+3 model). Few students, however, take advantage of this flexibility within IVET, and it is an opportunity that is more used as CVET among adults. As young people have a right to upper secondary school education, but no right to apprenticeship training, the counties have offered alternative training for those lacking an apprenticeship contract. This alternative training, normally lasting one year, has generally been of poorer quality and esteem than apprenticeship training. It has also been characterized by local solutions, with many examples of high quality training, which demonstrates a lack of consistency and predictability that deviates from the standardization that characterized the reform of 1994. That the current government has suggested to institutionalize and improve

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<sup>15</sup> Statistics Norway, Statistikkbanken, table 09012.

this alternative training, represents a substantial change in students opportunities to complete IVET at the upper secondary level, as the lack of apprenticeships has been an important reason for students to drop out of upper secondary school.

There is no general tendency that provision at Level 5 has affected the provision of IVET at upper secondary level. Except from vocational colleges, IVET is, and has been, an important source of CVET in Norway. With support from researchers and key stakeholders, the government has suggested to extend adults right to upper secondary school, and make it easier to return to upper secondary education to achieve vocational competencies. They also suggest to adjust level 3 education to adults needs, for instance by offering module based training. Thus, there is political will to strengthen IVET as a source of CVET.

Changing institutional arrangements have, to some extent, reduced the boundaries between IVET and general education. With the reform of 1994, programs offering a vocational qualification combined with general subjects giving university admission certification were introduced on a local scale. The arrangement, today termed “Yrkesfag med studiekompetanse” (YSK), are still only offered at certain schools in certain counties, and the number of different programmes vary each year (vilbli.no 2021b). The right to complete a third year of general education after obtaining a trade certificate is a more recent change, and was established on a national level in 2014. Completing this third year gives admission to higher education. Before 2014, this right existed only within certain counties.

The development in Norwegian VET is characterized by a shift from aiming at more generality within VET, to a reversion back to more specialization. With Reform 94, the introduction of broad programmes at entry level in upper secondary school, encompassing numerous vocational subjects, represented a tendency that has lasted for two decades. The Knowledge Promotion Reform of 2006 confirmed this tendency, with its reduction of courses and introduction of broader programs in the second year of upper secondary school. Throughout the years, this aim of a more general vocational education resulted in greater distancing between vocational education and the corresponding vocational occupation. The reaction from both employers and expert committees (consisting mainly of educationalists) was a demand for, yet again, more vocational specialization and a higher degree of working life relevance. This reaction manifested itself in the reports from two committee of experts: the Ludvigsen committee (2013-2015) and the Lied committee (2017-2019).

Alongside this shift from a focus on broad programs to more specialization, there is an increasing emphasis on flexibility within the system, both for young students and for adults. This entails especially a strengthening of the adults’ right to upper secondary education.

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