
SUPPORTING TEACHERS
AND TRAINERS FOR
SUCCESSFUL REFORMS
AND QUALITY OF VET

DENMARK

Mapping their professional
development in the EU



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Authors: Ole Dibbern Andersen; Susanne Gottlieb and Katrine Kruse

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The thematic perspectives series complements the general information on vocational education and training (VET) systems provided in 'VET in Europe' reports. The themes presented in the series feature high on the European agenda.

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1. Introduction

This article presents how teachers and trainers in the Danish vocational education and training (VET) system are prepared for their work as professionals in an educational system undergoing rapid changes.

Danish VET teachers have had their own national educational institution DEL (Danish Institute for Educational Training of Vocational Teachers) since 1969. But the establishment of University Colleges in 2008 consequently merged DEL with the Metropolitan University College and changed the name to NCE (Danish National Center for the Development of Vocational Education and Training). Since 2008 the training of VET teachers has been placed in the framework of the University Colleges and is now offered at 5 University Colleges across the country and a sixth is soon to come.

Denmark has approximately 8000 VET teachers in around 100 VET colleges teaching both in IVET and adult learning programmes. There are no exact figures, but the 8000 includes teachers at technical colleges, social and healthcare colleges, business colleges, agriculture colleges and a growing number of teachers at the different VET colleges who teach the EUX programme (relatively new school based programme combining VET and general education).

1.1. Challenges in the Danish VET

Denmark has had a dual VET system for many years. VET programmes in Denmark are described on level 3-5 of the EQF framework ⁽¹⁾. VET programmes are carried out at technical colleges, social and healthcare colleges, business colleges, agricultural colleges, and at adult VET centers (often the colleges offer at least two or three of the above mentioned types of programmes).

The system is well functioning with general acceptance and involvement from the labour market. During the crisis in Europe Denmark has managed to have a low rate of youth unemployment (approximately 13% – compared to a EU-28 average of approximately 23.5 %). Nevertheless Denmark faces some general problems regarding VET:

- (a) a general low reputation among young people and their parents and a continuously lower number of young people entering VET education immediately

⁽¹⁾ <https://ec.europa.eu/ploteus/content/descriptors-page>

after compulsory school. Consequently the average age when entering VET is rising. In 2014 the average age was 24 years ⁽²⁾;

- (b) a high dropout rate – as well in the school part as in the practice part of VET programmes. In 2014 only 51% of VET students completed their education ⁽³⁾;
- (c) difficulties in providing enough practice placements in companies. According to the Danish Ministry for Children, Education and Gender equality (May 2015), there are 5 295 VET students without a training agreement and therefore unable to finish their education and 8 554 (July 2015) VET students undergoing their practical training in a Centre of Placement ⁽⁴⁾.

Denmark is trying to solve these problems with a reform of Vocational Education and Training System ⁽⁵⁾. The reform is being implemented since August 2015. The main aspects in the reform concern improving pathways from VET to higher levels of education, attracting high performing students, enhancing transparency, and improving the quality of teachers' teaching skills.

In the following chapter we will describe three main initiatives concerning the competences of VET teachers and managers put in place in order to accommodate the above mentioned challenges. The strategy has been implemented through the following three initiatives:

- (a) VET Pedagogical Diploma from 2010 – to raise the pedagogical level for all VET teachers employed after 2010;
- (b) an order stating that VET management must have Pedagogical Management Competences equivalent to 10 ECTS at EQF level 6 and that every VET institution must develop a Common Didactic and Pedagogical Foundation from 2012 – to raise the pedagogical coherence and strategy on institutional level;

⁽²⁾ http://www.ugebreveta4.dk/nye-elever-paa-erhvervsskoler-bliver-aeldre-og-aeldre_19471.aspx

⁽³⁾ <http://www.uvm.dk/Service/Statistik/~UVM-DK/Content/News/Udd/Erhvervs/2015/Sep/150917-Fortsat-stort-frafald-paa-erhvervsuddannelserne>

⁽⁴⁾ <http://www.uvm.dk/Service/Statistik/Statistik-om-erhvervsuddannelserne/Praktikpladsstatistik>

⁽⁵⁾ <http://uvm.dk/1-fokus/~media/UVM/Filer/1%20fokus/Tema/Faglaert%20til%20fremtiden/131002%20faglaert%20til%20fremtiden.ashx>

- (c) legislation for the 2015 VET Reform including a plan for VET teachers' Continuing Professional Development (CPD) from 2015 – to raise VET teachers' pedagogical competencies for all teachers employed already before 2010.

2. Teaching and training professionals in school-based settings

2.1. New requirements on VET Pedagogical Diploma since 2010

In 2010 the requirements of VET teachers' pedagogical competences were considerably raised. Already before 2010, VET teachers must have qualifications at initial vocational education and training level in the vocational field they teach, supplemented with relevant further education (pre-service training). Additionally, VET teachers must have five years of relevant and recent work experience.

Until 2010 this was enough to employ a VET teacher. When a teacher was hired at a VET College he or she had to take and pass a pedagogical course (*Pædagogikum*), consisting of theoretical elements as well as elements of practical teaching (30 ECTS).

After 2010 the requirements for pedagogical competences of VET teachers have risen considerably. The VET teacher – at the latest three years after being hired at a VET college – must gain general knowledge at secondary level in two or three general subjects (for instance Danish, Mathematics, Natural science, foreign languages).

At the latest one year after being hired the VET teacher must begin the vocational pedagogical diploma education, and at the latest four years after being hired he or she must have passed a pedagogical education at bachelor level/diploma level (60 ECTS at EQF level 6).

This law is now being implemented. New VET teachers take part in a diploma programme, called *VET Pedagogical Diploma*. Approximately 1 500 VET teachers have finished until now or are currently studying in a DEP programme (June 2015).

2.1.1. Admission criteria

The admission criteria for the DEP programme are different from all other diploma programmes in Denmark. The normal admission criterion for entering a programme on diploma level (EQF level 6) is having formal qualifications on academy level (post-secondary, EQF level 5). But because of a large number of the VET teachers have a non-formal education on top of their vocational education it has been necessary to have more accommodative admission criteria for the DEP programme.

To enter a DEP programme the candidate be employed as a VET teacher. If the candidate does not have former qualifications on academy level (EQF level 5) he or she may start on either module 1 or 2. When the candidate has passed these two modules, he or she is considered suitable for further studies and may continue to the other modules (see Section 2.1.2).

2.1.2. The obligatory VET pedagogical diploma programme (DEP)

The VET pedagogical diploma (EQF level 6) is an in-service education (contrary to a pre-service teacher education, which in the case of VET teachers refers to vocational education in the relevant trade or craft).

The aim of the DEP programme is for the student to gain theoretical and practical basis of teaching in vocational programmes; to take part in innovation and development work; and to develop him/herself professionally and personally.

The programme is implemented with the focus being on competences. Teaching in DEP is performed in a holistic interdisciplinary way, supporting students in developing themselves as reflective practitioners.

The learning outcomes of the DEP programme

Competences:

- can take part in qualified debates on education, teaching and learning processes within vocational education and training;
- can develop own practice as a VET teacher including as well theoretical as practical elements and is able to reflect on the relation between theory and practice.

Knowledge:

- insight in the VET pedagogical field.

Skills:

- is able to plan, carry out and evaluate practice oriented and differentiated teaching;
- is able to analyze, evaluate and revise vocational education taking into account the needs of society, labour market and the individual student.

NB: <http://diplom.uc-dk.dk/diplomuddannelser/paedagogiske/erhvervspaedagogik.html>

The DEP diploma is 60 ECTS, corresponding to one year's full time study. The DEP diploma consists of six modules, including four obligatory and two elective modules.

DEP diploma modules

Obligatory	Module 1: Teaching and learning	10 ECTS
	Module 2: Planning – didactic	10 ECTS
	Module 3: Pedagogical science theory	5 ECTS
Elective (two of the following four)	Module: VET participants	10 ECTS
	Module: Development of the VET system	10 ECTS
	Module: Digital technologies in VET programmes	10 ECTS
	Module: Practice related teaching in VET education	10 ECTS
Obligatory	Final thesis	15 ECTS

2.2. Pedagogical management and common didactical and pedagogical foundation 2012-13

The next step in the competence development of the Danish VET colleges is focused on their management. In the 2012 VET legislation an extra paragraph was added to the Ministerial order describing the competences of VET teachers and VET managers, saying that ⁽⁶⁾: ‘The VET college must make a plan for competence development of the pedagogical management and be able to document that each pedagogical leader has pedagogical leader competences in an amount corresponding to 10 ECTS points at diploma level within a diploma programme on pedagogical management.’

Pedagogical management refers to management with a specific focus on the core task of a VET college. It is about ensuring the quality and development of teaching and supporting teachers and their work with students. It is also about creating a common pedagogical foundation of s individual teachers, and the teams on every department of a VET college.

The Ministerial Order was a year later in 2013 followed up and supported additional with a part of the State Budget for 2013 ⁽⁷⁾ where the Government launched a number of quality initiatives regarding VET colleges. There, it is stated that every VET college must establish and implement a common didactical and pedagogical foundation VET.

⁽⁶⁾ The Main Ministerial Order on VET, § 12, point 5:
<https://www.retsinformation.dk/forms/R0710.aspx?id=164802#Kap3>

⁽⁷⁾ https://www.uvm.dk/~media/UVM/Filer/Udd/Erhverv/PDF13/130125%20Kvalitetsinitiativer_eud_2.pdf

Both initiatives are addressing the same challenge: to develop at VET teaching practice based upon a clear vision of the pedagogical values that a VET college wants to promote. When VET teachers are aware of this, and when the management is able to put it on a visible agenda, there is a fair chance that the quality of VET will improve.

2.3. VET reform 2015 and VET teachers pedagogical competences

The latest VET reform 'Improving Vocational Education and Training' from 2015 states that the VET colleges must establish a plan for competence development of the whole teaching staff ⁽⁸⁾: 'The VET college must make a plan for competence development of the whole teaching staff. The college must in agreement with the teachers plan continuous professional development for both the whole teaching staff and individual teachers in order to secure renewal and adaption of the teachers' competences, including supplementary experience from the world of work, among other things performed as short time traineeships in enterprises and guidance on pedagogical practice'

Furthermore the new and higher requirements for vocational pedagogical education are now made obligatory as part of the continuous professional development for 'experienced' teachers employed before 2010. Within the period 2015 – 2020 all VET teachers must have vocational pedagogical competences at diploma level (EQF level 6) of at least 10 ECTS ⁽⁹⁾.

2.4. Continuing professional development (CPD)

The Danish Ministry of Education has conducted an analysis on the competency needs of VET teachers in order to accommodate the goals of the above mentioned reform, and has also allocated a considerable amount of money to each college for teachers' continued professional development. The Ministry has expressed clear expectations with regard to level and content of teachers' CPD:

- (d) all VET teachers must have VET pedagogical competences at diploma level (EQF level 6), corresponding to at least 10 ECTS points;
- (e) CPD must be recognized in the formal education system; that means that CPD must be assessed at a university college or at a university;

⁽⁸⁾ The Main Ministerial Order on VET, § 12, point 6 and 7:
<https://www.retsinformation.dk/forms/R0710.aspx?id=164802#Kap3>

⁽⁹⁾ The Main Ministerial Order on VET, § 12, point 8:
<https://www.retsinformation.dk/forms/R0710.aspx?id=164802#Kap3>

- (f) CPD must concern pedagogical competences within the following 7 content areas:
- (i) knowledge of and focus on students' learning processes and progression;
 - (ii) classroom management with focus on the students' learning processes;
 - (iii) planning and carrying out differentiated teaching with a starting point in students' needs and potential;
 - (iv) supporting students in creating coherence in learning processes at the VET college as well as at the company;
 - (v) student activating methods;
 - (vi) practice related teaching;
 - (vii) pedagogical use of ICT.

The Ministry of Education estimates that approximately 64% of all VET teachers will need this type of CPD.

VET managers may choose between the themes and offer selected content areas for their staff (VET teachers). The themes are chosen according to the common didactical and pedagogical foundation and strategy of each VET college.

The themes are provided as diploma modules by the university colleges. Normally, CPD is carried out at the VET college (and not at the university college) and it is specially planned and carried out with content examples and exercises closely connected to the practice of the VET colleges and the experienced VET teachers' needs.

3. Apprentice tutors or practical training instructors in companies

The apprentice tutors or the practical training instructors are not included in the above mentioned CPD as there are no formal requirements of training competence for these groups.

The reason behind this is the divided responsibility of the Danish VET system. The Ministry of Education is responsible for the basic, college based course and the social partners for the main course involving the training in the companies and the requirement to the instructors. Social partners have decided to have no obligatory training of trainers, but trainers can follow public AMU-courses (labour marked education, leading to formal qualifications at EQF levels 2-5) of 10 days to 6 weeks of

duration with a content of, for example, coaching or pedagogical guidance. These AMU-courses are primarily used in the social and healthcare sector ⁽¹⁰⁾.

4. National and EU-funded projects to support VET teachers' and trainers' professional development – cooperation and partnerships

The Danish Ministry of Education has taken initiative to a number of innovation and development projects about the teachers continuing professional development. In 2013-14 two main projects were carried out with participation of a great number of VET colleges and with a research team from NCE (Danish National Center for the Development of Vocational Education and Training), as an 'umbrella' gathering common experiences and analysing results. The two projects were concerning 'Pedagogical Management' ⁽¹¹⁾ with 12 participating VET colleges and 'Implementing of a Common Didactical and Pedagogical Strategy' ⁽¹²⁾ with 21 participating VET colleges.

Also in 2013 the Danish Evaluation Institute, EVA, published an evaluation with a focus on a stronger interplay between the two elements of the dual VET system: the school based teaching and the practical learning in the companies. Students might lose when there is a poor communication between the VET colleges and practical training companies, for they may perceive themselves to be solely responsible of creating the common thread in their education. The publication therefore presents a range of teacher relevant advises to create a better interplay between the two arenas of learning ⁽¹³⁾.

In 2014-15 the Danish Ministry has initiated another 'umbrella-project' with the title: 'Teachers in short time traineeships in enterprises' ⁽¹⁴⁾ with 25 participating VET colleges. This initiative is fully in line with the general efforts in the ongoing VET reform to strengthen the links between school teaching and practical learning in companies by

⁽¹⁰⁾ <https://www.ug.dk/Uddannelser/arbejdsmarkedssuddannelseramu>

⁽¹¹⁾ <http://www.phmetropol.dk/Forskning/Skole+og+padagogik/Erhvervspadagogik+NCE/Aktuelle+projekter/2014/07/Paedagogisk+Ledelse>

⁽¹²⁾ <http://www.phmetropol.dk/Forskning/Skole+og+padagogik/Erhvervspadagogik+NCE/Aktuelle+projekter/2014/07/Generaliserbar+viden+didaktisk>

⁽¹³⁾ <https://www.eva.dk/eva/taet-kobling-mellem-skole-og-praktik>

⁽¹⁴⁾ <http://www.phmetropol.dk/Forskning/Skole+og+padagogik/Erhvervspadagogik+NCE/Aktuelle+projekter/2015/10/Virksomhedsforloeb+for+laerere>

giving VET teachers the possibilities to have a period of in-company-training to develop relevant teaching skills (¹⁵).

KORA, the Danish Institute for Local and Regional Government Research is conducting research trying to answer the question 'Does the reform of VET have the intended impact?'. In the 2014-20 period KORA is examining to what degree a clear feedback practice in the basic VET courses can reduce dropout rates (¹⁶).

The social partners in form of the professional committees have initiated a number of teacher training initiatives aiming to raise VET teachers' professional competencies. Carpenters, electricians and other professional VET teacher groups are given the option to participate in workshops of one week duration primarily aiming to develop the specific competencies in the professional area – and secondary to deliver more attractive and engaging teaching and training.

5. Conclusion

Denmark is undergoing a general upskilling of VET teaching staff. The importance of a good teacher is in focus, also because of the evidence based research made by John Hattie (¹⁷) claiming the teacher to be the most important single factor when it comes to a student's learning process.

The importance of a lift of the pedagogical competences is acknowledged in VET colleges because of the politically expressed wish to raise the quality of VET education and attract more resourceful students.

VET colleges are struggling to transform results from national and local research and development projects to daily enhancement of teaching and learning quality in order to fulfil the political intentions of a more attractive and effective VET system, giving the best learning possibilities to both young and adult students.

Much has happened with regard to this during the last five years, but Denmark is still waiting for a 'break-through' of these many initiatives: the amount of VET students to grow and the dropout rate in VET to decline.

(¹⁵) <http://www.phmetropol.dk/Forskning/Skole+og+padagogik/Erhvervspadagogik+NCE/Aktuelle+projekter/2015/10/Virksomhedsforloeb+for+laerere>

(¹⁶) <http://www.kora.dk/arbejdsmarked-og-uddannelse/i9698/Stort-forskningsprojekt-skal-foelge-reform-af-erhvervsuddannelserne>

(¹⁷) <http://www.educationalleaders.govt.nz/Pedagogy-and-assessment/Building-effective-learning-environments/Teachers-Make-a-Difference-What-is-the-Research-Evidence>