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## **The changing role of vocational education and training in Europe: Concepts and Models**

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### **Abstract**

The article presents a synopsis of key concepts and models developed in the course of a comprehensive comparative research project carried out for Cedefop which analysed changes of vocational education and training systems between 1995 and 2015 in the EU-28, Iceland and Norway. We sketch a framework of descriptors used to analyse national conceptions of Vocational education. Building upon this framework we introduce a two-dimensional model to describe trajectories of national VET systems. The German-speaking and Nordic countries are used as examples to illustrate the model. The aim of the contribution is to discuss the potential of these new methods and models for comparative VET research.

### **Keywords**

vocational education; international comparison; models; scenarios

### **1 Introduction**

Due to similar challenges (e.g. technological change, migration) and the common influence of European policies (e.g. EQF, Bologna process) comparable developments of national vocational education and training (VET) systems in Europe can be expected. Indeed, we see profound changes in the nature of vocational education in many countries, such as the growth of VET programmes at higher levels, the blurring of boundaries between initial and continuing VET or the shift towards learning outcomes. However, looking into more detail different trajectories of VET systems reveal. The aim of this paper is to present new concepts and models which have been developed to describe major changes of VET systems in a comparative way. The two key questions which we address and would like to discuss further are: How has a comparative research approach specific to VET have to look like? How can the complex changes in VET be simplified in such a way that a comparative analysis is still meaningful and the ‘big picture’ becomes comprehensible?

Findings presented are based on the Cedefop project ‘The changing role and nature of the VET’ which was carried out between 2015-2018<sup>1</sup>. The project applied a combination of different research methods (e.g. case studies, expert surveys, statistical analysis), disciplinary approaches and involved around 100 researchers in Europe.

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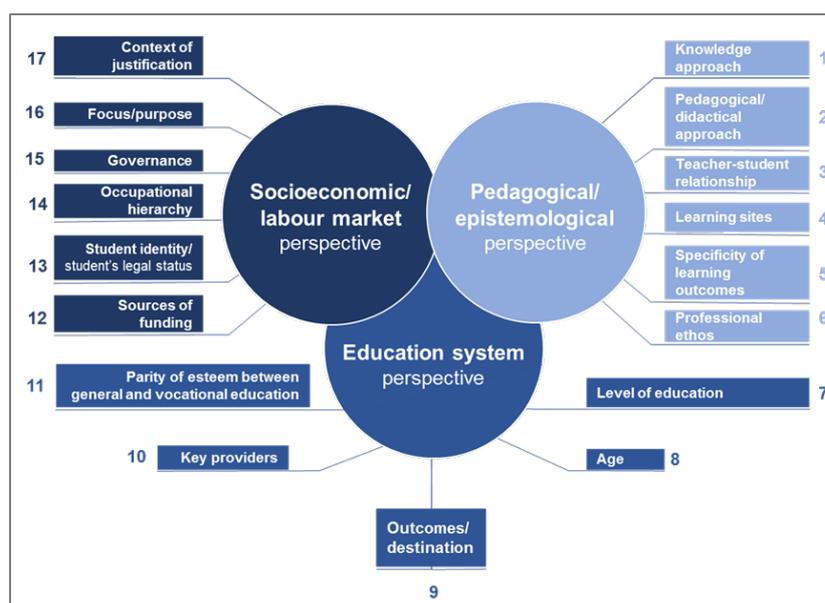
<sup>1</sup> <http://www.cedefop.europa.eu/en/events-and-projects/projects/changing-nature-and-role-vocational-education-and-training-vet-europe> (accessed 15.01.2019)



First, we argue that a comprehensive research approach to VET requires the combination of different perspectives. We present a framework which allows to determine and compare different conceptions of VET. Building upon this framework, we introduce a model, which aims to describe major changes in the positioning and character of national VET systems. We illustrate this by taking the Nordic countries and German-speaking countries as examples. Finally, we discuss the limitations of the model and provide an outlook on further research needed.

## 2 A multi-perspective approach to VET

The diversity of VET systems has been dealt with by different authors from different angles, resulting in a range of different typologies of national VET and education systems. For excellent overviews on these approaches see for instance Rageth and Renold (2017), Gonon (2016) or Bosch (2016). Most approaches focus on governance, economic or labour-market perspectives, sometimes on the education system. Neither do justice to the subtle differences between allegedly similar VET systems. They are all rooted in specific disciplinary traditions and do hardly cover the multifaceted aspects of VET. A VET-specific approach has to combine different perspectives. Instead of applying a pre-defined country typology we therefore have developed an analytical tool to describe concepts and changes in VET between countries from three different, partly overlapping perspectives: an epistemological/pedagogical perspective, an education system perspective and a socioeconomic or labour market perspective (Cedefop, 2017a, 2017b).



Source: Cedefop (2017a)

Figure 1 A conceptual framework to characterise VET

In the **epistemological or pedagogical perspective**, it can be argued that vocational education's identity is rooted in distinctive knowledge production, representation, use and transfer, which can be associated with distinctive ways of teaching and learning. VET emphasises tacit as distinct from cognitive knowledge and learning through practical experience and socialisation in communities of practice.

With an **education system perspective**, the variety of forms of VET, types of providers, levels and funding sources and mechanisms, i.e. the system structures come to the fore. An education system perspective looks at the way VET as an institution has evolved and contin-

ues to evolve over time. It would consider such issues as whether the state or employers are the main VET providers, the age and status of learners (e.g. students, apprentices or employers), parity of esteem between vocational and general education and the like.

Using a **socioeconomic or labour market** perspective the wider functions of VET are considered, such as the ways in which it contributes to social stratification by providing access to particular career pathways and to the skills, competences and attitudes required by companies and their work systems.

This instrument which distinguishes three perspectives, 17 dimensions and almost 50 characteristics was used by country researchers to portrait national conceptions of VET. This way we could group countries according to a few main patterns (Cedefop, 2017b) without concealing the differences between countries within one group. Based on this approach and the data gathered we have developed a model that allows for the comparison of developments in a multitude of countries at a glance.

### 3 A model to describe long-term changes in VET

The two-dimensional model uses at the one hand the position of VET within overall education systems and, as such, mainly its relation to general education (i.e. on the horizontal line we are asking: will we see academic or vocational drift?). On the other hand, the model refers to the changing characteristics of VET. For this vertical dimension we distinguish between two major developments we have identified: the strengthening of VET leading to what we called *distinctive VET* and the diversification of VET leading to what we called *pluralistic VET*. However, these two dimensions are not independent of each other; on the contrary, the more pluralistic an education system becomes, the more the line between vocational and general education will be blurred. Thus, moving up the vertical line results in a blending of vocational and general education (compare Figure 2). Below, we very briefly discuss examples of qualitative and quantitative indicators we have used to sketch the countries' trajectories along these two dimensions according to the three perspectives (Cedefop, forthcoming).

#### 3.1 Academic and vocational drift

From an epistemological perspective, vocational drift means the appreciation of vocational, practical, tacit or professional knowledge at the expense of the esteem of academic, theoretical, abstract or disciplinary knowledge. From a pedagogical perspective, indications could be the recruitment of teachers with work experience from business and industries or increasing work-based elements in school-based VET (e.g. more students taking part in internships and apprenticeships or more practice-based, case-based or project-oriented learning).

In terms of the education system perspective, the share of enrolment in vocational education at upper-secondary level is perhaps the most reliable indicator to measure vocational or academic drift. The increasing relative enrolment in professional higher education in relation to traditional universities is certainly also an indicator of vocational drift of higher education.

From a labour market perspective, the strengthening of the role of social partners or increasing power of employers over content would be an indicator of vocational drift. Improving the responsiveness of education to the labour market (e.g. faster update of curricula) or other measures that bring education closer to the world of work are also signs of vocational drift.

#### 3.2 Strengthening and diversifying VET

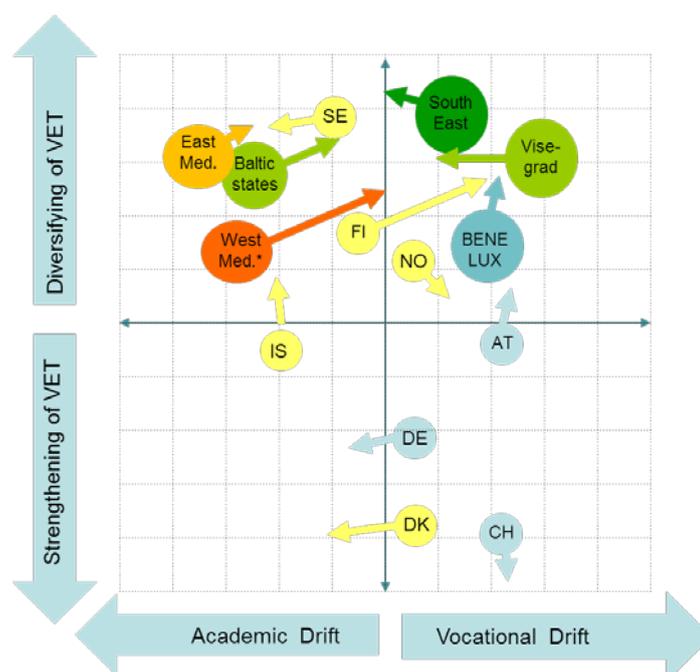
The vertical axis of the above model is less intuitive. One way of looking at it is in terms of heterogeneity of VET and whether there is a small set of characteristics and a narrow definition of VET (e.g. VET at a particular level, serving a particular purpose and taking a particu-

lar form) or a broad set of characteristics (e.g. multi-purpose VET, VET at several levels and taking various forms).

From a pedagogical perspective, signs of distinctive VET are a preference for learning in real-life work environments and professional knowledge, the duality between practical and theoretical learning, and the vocation ('Beruf') as a key organising principle. A pluralistic view of VET acknowledges all this, but also accepts any other approach (e.g. disciplinary and professional knowledge are seen as equal; and so are narrowly on-the-job learning and comprehensive professional education).

From an education system perspective, a VET sector that is clearly separated at all educational levels from other education sectors is an obvious sign of distinctive VET. Expanding apprenticeships to lower and/or higher levels is also indicative of distinctive VET, but only to the degree VET principles are retained. An ambiguous sector of vocationally oriented higher education; increased crossing of boundaries between education sectors; and increasing diversification of VET providers, programmes, target groups or learning approaches are all unmistakable signs of VET becoming more pluralistic.

From a labour market perspective, the key purpose of VET is often described as education and training which prepares for particular occupations, and this is certainly also key for distinctive VET. A broadening of this aim (e.g. securing employability) and additional purposes (e.g. preparing for lifelong learning in general) certainly makes VET more pluralistic. The introduction or increase of double or hybrid-qualifications combining occupational and general qualification would also be a sign of more pluralistic VET.



Source: based on Cedefop (forthcoming)

Figure 2 Trajectories of VET systems for selected European countries and regions between 1995-2015

#### 4 Examples: A snapshot on the D-A-CH region and the Nordic countries

In the 1980s the commonalities between countries in the **D-A-CH region** in terms of VET were striking. But despite similar challenges such as globalisation, Europeanisation or the trend towards higher education, the countries have taken different trajectories since then.

Focussing on upper-secondary level we find a stronger academic drift in Germany for the last two decades than in Switzerland or Austria. Furthermore, we find a strong trend towards school-based VET in Austria, and an opposite trend in Germany and Switzerland (Ebner & Nikolai, 2010). The latter may be explained by the exceptional case of VET colleges in Austria, which have no real equivalent in Germany, and comparable institutions in Switzerland were upgraded to universities of applied sciences in the 1990s. Also, the fact that in Austria active labour market policy is used extensively to sustain the apprenticeship systems marks a sharp contrast to Germany and Switzerland. The drawback of this and the simple existence of the higher VET colleges fosters a hierarchy within VET in which the apprenticeship system sits at the lower end in Austria. Consequently, a competition between the dual system and higher education (as can be seen from the German discourse on academisation) or between apprenticeship training and the *gymnasium* (general education) as in Switzerland is not comprehensible in Austria.

The **Nordic countries** - Denmark, Finland, Norway, Iceland, and Sweden - have for a long time been considered to be different from the rest of Europe in whatever classification of welfare states, industrial relations and labour market regimes or political systems has been applied and have often been referred to as the ‘Nordic Model’. Nevertheless, when we look at VET a Nordic Model of VET is not visible (compare Figure 2). In the comparative literature on VET systems, Sweden and Denmark are discussed as archetypical exemplars of different VET systems (Jørgensen, Michelsen, Olofsson, & Thunqvist, 2014; Michelsen & Stenström, 2018). Denmark is described as a strong and well-functioning VET system based on apprenticeship and company-based learning, while Sweden has been considered as an example of a statist, egalitarian social-democratic school model, where upper-secondary VET is embedded in a comprehensively organised school system. While the other Nordic countries have taken steps to integrate vocational education at the upper-secondary level, Denmark has maintained a separate system of apprenticeship due to the strong interest of employers - with significant links to the employment system, but weak ties with general and higher education. In Sweden the state-led rise of the comprehensive school meant that firm-based apprentices’ skill formation was threatened and eradicated, because employers were not strong enough (Michelsen, 2018, p. 14). In Finland, the employers consistently preferred school-based VET, also because there was simply no basis for the collective organisation of skills in industry. Furthermore, a statist preparatory school-based VET system with few connections to general education was preferred over an integration of VET and general education while apprenticeship has mainly developed as an option for adults (ibid.)

## **5 Outlook: Limitations, open questions and further research**

We have aimed at incorporating the multiple functions of vocational education and training into one model. We consider this an innovation and a practical tool which goes beyond existing typologies. For us the model was also instrumental to the development of future scenarios of national VET systems. We have developed six scenarios for VET and claim that these scenarios are more effective for strategic discussions than the recurrent reference to “model-countries”. As VET researchers we have given much more emphasis to concepts of education and learning than previous approaches. These often concentrate at only one of the manifold functions of VET. The ultimate aim of this model is not the explanation of effects of VET, but rather the reduction of the complexity with regard concepts and notions in use. Just like hard figures on the economics of VET such underlying concepts are another reality that needs to be taken into account by any attempt of understanding VET in its national contexts.

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## Biographical notes

Dr Jörg Markowitsch studied Philosophy and Mathematics and is Senior Partner at 3s Consulting in Vienna which he founded in 2001. He works as researcher and policy advisor at national and EU-level in the area of education and labour markets.

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