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## Challenges and Helpful Conditions for Vocational Teachers in Europe. Findings from the “VETteach” Project

**Brevik, Birger**

birger.brevik@oslomet.no, Oslo Metropolitan University, Department of Vocational Teacher Education

**Kaiser, Franz**

franz.kaiser@uni-rostock.de, University of Rostock, Institute for Vocational Education

**Hoppe, Melanie**

melanie.hoppe@uni-rostock.de, University of Rostock, Institute for Vocational Education

### Abstract

This study, conducted by the IBP at the University of Rostock and partners with responsibility for VET teacher education in an Erasmus+ project, aimed to identify challenges faced by these teachers and analyze similarities and differences in their qualifications across Finland, Norway, Spain, Sweden, Switzerland, and Germany. Using a quantitative survey, the study collected responses from 824 participants, including 389 VET teachers. The results showed that teachers from different countries face varying challenges depending on their vocational education systems. Key findings include the higher prevalence of "students with challenges" as a concern among German and Spanish teachers compared to their Nordic counterparts, and a lack of motivation among students in school-based training systems (Norway, Spain, and Sweden). Across all countries, teachers complained about a lack of resources, such as time for preparation and follow-up, staff shortages, and inadequate technical equipment. Additionally, teachers across the countries reported difficulties in staying up to date with market developments. These findings emphasize the need to better prepare vocational teachers for diverse challenges and adapt teacher training to address them. This includes linking theory and practice through school-company networks, enabling teachers to stay current with industry developments, and providing sufficient resources. Systemic steps are also needed to support vocational education, such as adequate financial resources. The study's results provide a basis for further research and can inform strategies for improving vocational teacher training across European countries.

### Keywords

VET-teacher, innovation, comparative study, teacher training improvement, challenges and opportunities



## 1 Context

High-quality initial training of future teachers and trainers in vocational education and training and their continuous professional development is a prerequisite and guarantee for successful vocational education and training. Considering the manifold challenges faced by VET personnel, the VET providers need to find answers on how to organize best their initial and continuing training (Cedefop, 2016).

For this reason, the Institute for Vocational Education and Training at the University of Rostock, under the responsibility of Prof. Dr. Franz Kaiser, cooperated over a period of two years with several universities that offer academic studies for vocational teaching professions to analyze the challenges vocational schoolteachers are facing. The partner countries are Finland (Haaga-Helia University of Applied Sciences, Helsinki), Norway (Oslo Metropolitan University - OsloMet), Spain (University of Valencia) and Sweden (University of Linköping) as well as the associated partners from Switzerland (University of Applied Sciences Northwestern Switzerland and University of Teacher Education Bern) (Hoppe & Kaiser, 2021).

During the project and based on experiences with a comparative study between VET teachers in Sweden and Finland (Kaiser, 2020), the VETteach project has set the goal to identify more similarities and differences between the systems of vocational teacher qualification and the actual requirements for vocational teachers in everyday life. Over a period of more than 1.5 years, a project working group has developed a questionnaire to help identify these differences. The theme of the survey was the abilities, needs and difficulties of VET teachers work, and was designed as a quantitative survey.

In this paper, we will describe the context and present selected results of the study that deal with vocational teachers' challenges in functioning as a good teacher and what the teachers believe strengthens their opportunities to be innovative in their teaching.

## 2 Study method

A comparative study of Finnish and Swedish VET teachers conducted in 2019, provides a first insight on the differences in the attitudes and training paths of teachers in the two Scandinavian countries (Kaiser & Lindberg, 2019). Main findings for these two countries have been:

- Related to the strengths of the respective VET system, the Finish teachers see especially the quality and structure of the education system, like the flexible and good-structured education- and learning systems, the highly educated teachers and in the existence and transfer of practical skills. While the Swedish respondents focus on cooperation with the regional economy. Probably it also reflects the increasing importance of workplace learning in Sweden combined with the hope to get a solution to reduce youth unemployment with that approach.
- Actors in a social field of action wish for or even demand better financial support and technical equipment.

Unfortunately, the small number of interviewees did not allow generalizations to be made about the findings. Due to this, the VETteach partners decided to jointly develop a questionnaire based on this study. This questionnaire consists of three parts. In the first part, we obtained the informants' affiliation and background. Following this, in the second part, two quantitative questions had to be answered each with ten factors in a matrix. In the third and last part, we asked the informants to enter their opinions in complete sentences in response to our two open questions. The question that our informants were asked, the answers to which form the data material in the study reported in this article, is as follows: *What do you think causes trouble as a vocational teacher? Or what do you fear most? (Mention up to three topics in full sentences).*

The digital survey, which was translated into the national languages of the project partners, was designed in such a way that not only teachers, but also VET teacher students, VET school

leaders and VET teacher educators were surveyed. The study was available to the informants in the period 1 April to 7 May 2022 via the QuestBack system. During the period, we received 824 valid responses, and of these 389 VET teachers.

This sub-study covers four of the six countries Norway (n=118), Spain (n=66), Sweden (n=81) and Germany (n=24) with a total of 289 respondents. Since the data material was analysed by the project partners from the respective countries, a common code book has been elaborated. The fact that a joint survey could take place is in itself a success (Isacsson et al., 2021). In order to form the basis for a joint code book, the analysis work started with coding the answers from the Norwegian data material using an abductive analysis method (Tjora, 2018). Based on the code book, the Spanish, Swedish and German data material was analysed. In this process, the codebook was adjusted according to an abductive analysis strategy, which meant that the Norwegian data material was analyzed again. The Norwegian and Swedish data were analyzed by the article's main author, the German by the article's second author and the Spanish data by VETteach's Spanish participants.

In order to obtain comparable data, we chose to quantify the results by summing up the answers from the number of respondents who were coded under a total of 22 different codes. Of these, there were 10 codes that represent the study's findings: Resources, Teaching obligations, Subject relevance, Non-curricular requirements, Students' motivation, Students with challenges, Lack of innovation, Not be up to date, External collaboration and Adapted teaching.

Although we have a total of 289 respondents, there is a weakness through an uneven distribution of the number of respondents in the various countries, and that we have quantified what can be described as qualitative data material. For that reason, our results are not generalizable, and must be seen as the results of a limited qualitative study. Another aspect that affects the results, and thus makes direct comparisons difficult, is the different vocational educational systems in the country of the informants. The results will, however, be able to form a basis for a more comprehensive quantitative study comparing the work of vocational teachers in European countries. However, we would like to claim that we have valid results as a qualitative study, as our findings have been compiled and discussed with the before mention study (Kaiser & Lindberg, 2019).

In summary, the results presented in this paper have been prepared from an abductive analysis of part three of the study where we coded the respondents' answers, then quantified the codes to see if there were any differences between the countries.

### **3 Main findings and discussions**

"This cannot be compared because it is not the same" (Lauterbach, 2003, p. 519). This statement is already countered by Lauterbach with the argumentation "that scientific interest in knowledge can be realised through comparison as an examination of the 'other'" (Lauterbach, 2003, p. 519). It is not only within the framework of EU projects that looking beyond national borders has now become the subject of numerous publications; comparisons of educational systems as a discipline are also coming into focus. Representatives of this have already included Abel (1962), Abraham (1962), Lauterbach (1999, 2003) and Czycholl (1971, 1975) to name but a few German researchers. International comparisons have four functions, which result from the juxtaposition of "particularities/universalities" and "theoretical/practical interest": evolutionist, quasi-experimental, idiographic, meliorist function (Hörner, 2004).

The research interest within the framework of this project pursues the goal of obtaining lively reports from the respective practices of teacher education and contrasting them on the basis of the systems involved in order to work out commonalities, but also differences. The national peculiarities provide the opportunity to discover regularities in the respective context and to develop common strategies and concepts or strategies adapted to the respective national

context. The research project can thus be seen as a synoptic-idiographical analysis. The respective national contextualisation makes it possible to go beyond juxtaposition, i.e. the mere juxtaposition of facts (Lauterbach, 2003, p. 523).

As an example, we would like to refer to the following results:

1. A crucial difference can be observed in the perception of “students with challenges”. Teachers from the Nordic countries like Norway and Sweden differ much from the Central European countries such as Germany and Spain. Where respectively 9.3% and 4.3% of the Norwegian and Swedish teachers thought this was problematic, 33.3% and 25.8% of the German and Spanish teachers reported that "Students with challenges" was something they were afraid of as teachers.
2. On the other hand, it is mainly the teachers from the Scandinavian countries who report that the students, due to a lack of motivation, are a great challenge in their daily work and cause excessive workloads. As an example of this, one of the Swedish teachers says:” Disinterested students create big problems and take a lot of time and energy” (R188-Se) Example of a Norwegian VET teacher's statements that has been coded under the category Recruitment to the profession “It is also a big problem that so many do not get an apprenticeship” (R407-No). One of the Swedish teachers explains the problem in this way “The industry is changing so there are few young people who choose a craft profession, which results in us vocational teachers having to put a lot of work and resources into marketing to get students. The difficulties in getting students out for internships” (R318-Se)

The main interest of the VETteach partners in the results of this study are the derivations regarding the specifications of the study programs that prepare students for the profession of vocational schoolteacher. To this end, let us first summarize some major findings:

- Pupils with challenges represent a major challenge in the teaching profession, especially in those countries that do not have school support systems (Spain and Germany). Since Sweden and Norway have some support mechanisms in place, this is of little importance here.
- The lack of a link between vocational training and company practice, and thus to companies, leads to a lack of motivation on the part of students, especially in the school-based training systems (Norway, Spain, and Sweden), and results in other tasks for teachers, such as building networks for internships. Our finding is supported by the previously mentioned Swedish-Finnish study where the Swedish respondents are concerned with cooperation with the regional economy (Kaiser & Lindberg, 2019).
- In all four countries surveyed, teachers complained about a lack of resources. The responses coded under "resources" were respectively from Norway (26.3%), Sweden (19.8%), Spain (25.8%) and Germany (37.5%). This corresponds to one of the main findings in the Swedish-Finnish study from 2019 where informants demanded better financial support and technical equipment (Kaiser & Lindberg, 2019). These refer to a lack of time for the preparation and follow-up of lessons, as well as a lack of staff in the schools. In addition, the lack of financial resources is reflected in the technical equipment of the schools, which makes everyday life more difficult for teachers and even hinders some aspects of education.
- It was also mentioned across the countries that the teachers have difficulties to follow the developments on the market and to stay up to date.

From this, we can derive findings that go far beyond those of the countries surveyed. Teachers should be prepared for the resulting teaching requirements, despite the possible existence of school support systems. To include this in the context of a university study seems to be indispensable.

The linking of theory and practice through the connection of school and companies, either through internships or practical training phases, is essential for the motivation of the students and thus for the actual tasks of the teachers. How school-company networks can be generated, what demands are placed on them and how they can be adequately used in vocational training should be addressed as part of teacher training. The connection to practice is also important for teachers because it gives them the necessary insights into new developments and enables them to constantly renew their own professional knowledge. This requires, first and foremost, the awareness and the willingness to constantly educate oneself and to stay open minded. At the same time, even in such a study, it should not be forgotten that learning from practice depends on good theory. It is needed as a basis for reflection and is based on insights into the history, the functional mechanisms of learning and the connection between socialization and personality in addition to the professional expertise that teachers must have and must be made accessible to them in their education.

However, this must not obscure the fact that, in addition to preparing prospective vocational schoolteachers for their work in vocational schools, systemic steps are also required to bring vocational education out of its shadowy existence. Providing adequate financial resources is the most obvious of these.

The selected results presented here in brief can primarily be attributed to systemic differences (Cedefop, 2021). At the same time, they suggest that very different challenges dominate the everyday life of teachers in the different countries and place corresponding adaptation strategies and demands on the training of prospective teachers. The benefit for research and teaching remains extraordinarily high and not least also for international understanding in these unpeaceful times. "Generally speaking, educators (in the broadest sense) are best prepared for the European diversity of education and upbringing by being taught the aforementioned contingency experience of the comparative perspective" (Hörner, 2004).

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### Biographical notes

**Birger Brevik** is Associate Professor at the Department of Vocational Teacher Education with subject responsibility for the master's in vocational pedagogy. His research interests are studies of technological learning tools in VET, the curriculum in practice and teachers' digital competence.

**Franz Kaiser** is full Professor and founding director at the Institute for Vocational Education at Rostock University. His research interests are theory of critical Bildung, comparison studies, group dynamics and VET teacher professionalization

**Melanie Hoppe** is senior researcher at the Institute for Vocational Education at Rostock University. Her research interests are teaching methodologies, disadvantaged in vocational education, and VET teacher professionalization.