Thomas Deissinger, Oksana Melnyk (Eds.)

Partnership-Based Governance and Standardization of Vocational Teacher Education in Ukraine

Co-funded by the Erasmus+ Programme of the European Union

(82) VOCATIONAL EDUCATION, WORK AND INNOVATION

wbv

Partnership-Based Governance and Standardization of Vocational Teacher Education in Ukraine

Thomas Deissinger, Oksana Melnyk (Eds.)

Series "Vocational Education, Work and Innovation"

The series "Vocational Education, Work and Innovation" offers a forum for basic and application-oriented vocational education and training research. It makes a contribution to the scientific discourse on innovation potentials of vocational education and training. It is aimed at a specialist audience from universities and research and research institutions as well as from school and company policy and practice fields.

The series is divided into two main areas:

- Vocational education, work and innovation (main series)
- Dissertations/Habilitations (sub-series).

Series editor:

Prof.in Dr.in habil. Marianne Friese
Justus Liebig University Giessen
Institute for Educational Science
Chair of Vocational Education/Labour Studies

Prof.in Dr.in Susan Seeber
Georg August University Göttingen
Chair of Business Education and Human Resource Development

Prof. Dr. Lars Windelband
University of Education Schwäbisch Gmünd,
Professorship for Technology and its Didactics at the Institute for Education, Career and Technology.

Scientific Advisory Council

- Prof. Dr. Matthias Becker, Hannover
- Prof.in Dr.in Karin Büchter, Hamburg
- Prof. Dr. Frank Bünning, Magdeburg
- Prof. Dr. Hans-Liudger Dienel, Berlin
- Prof. Dr. Uwe Faßhauer, Schwäbisch-Gmünd
- Prof. Dr. Karl-Heinz Gerholz, Bamberg
- Prof. Dr. Philipp Gonon, Zürich
- Prof. Dr. Dietmar Heisler, Paderborn
- Prof. Dr. Torben Karges, Flensburg
- Prof. Dr. Franz Ferdinand Mersch, Hamburg
- Prof.in Dr.in Manuela Niethammer, Dresden
- Prof.in Dr.in Karin Reiber, Esslingen
- Prof. Dr. Thomas Schröder, Dortmund
- Prof.in Dr.in Michaela Stock, Graz
- Prof. Dr. Tade Tramm, Hamburg
- Prof.in Dr.in Ursula Walkenhorst, Osnabrück

Weitere Informationen finden
Sie auf **wbv.de/bai**

Thomas Deissinger, Oksana Melnyk (Eds.)

Partnership-Based Governance and Standardization of Vocational Teacher Education in Ukraine

Co-funded by the
Erasmus+ Programme
of the European Union

wbv

The project number is 609536-EPP-1-2019-1-DE-EPPKA2-CBHE-SP. This project has been funded with support from the European Commission. The European Commission’s support for the production of this publication does not constitute an endorsement of the contents, which reflect the views only of the authors, and the Commission cannot be held responsible for any use which may be made of the information contained therein.

Vocational training, work and innovation – Main series, volume 82

2024 wbv Publikation
a business division
wbv Media GmbH & Co. KG, Bielefeld

Overall production:
wbv Media GmbH & Co. KG, Bielefeld
wbv.de

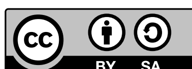
Cover design: 1expert, 123rf

ISBN (Print): 978-3-7639-7668-3
ISBN (E-Book): 978-3-7639-7669-0
DOI: 10.3278/9783763976690

Printed in Germany

This publication is freely available for download at
wbv-open-access.com

This publication, with the exception of the cover photo, is published under the following Creative Commons licence:
http://creativecommons.org/licenses/by-sa/4.0/deed.de



All trade names, company names and brand names used in this work and company and brand names used in this work may be protected by intellectual property rights, even if they are not designated as such. Their use in this work does not justify the assumption that they are freely available.

Bibliographic information of the German National Library
DThe German National Library lists this publication in the German National Bibliography; detailed bibliographic data are available on the Internet at http://dnb.d-nb.de.

The free availability of the e-book edition of this publication was made possible by a network of academic libraries and institutions for the promotion of Open Access in the social sciences and humanities as part of the *wbv OpenLibrary 2024*.

The publication complies with our quality standards for Open Access publications, which can be found at:
https://www.wbv.de/fileadmin/importiert/wbv/PDF_Website/Qualitaetsstandards_wbvOpenAccess.pdf

Many thanks to the sponsors of the *wbv OpenLibrary 2024* in the Department of *Vocational and Business Education*:

Otto-Friedrich-Universität **Bamberg** | Humboldt-Universität zu **Berlin** | Universitätsbibliothek **Bielefeld** | Bundesinstitut für Berufsbildung (BIBB, **Bonn**) | Rheinische Friedrich-Wilhelms-Universität **Bonn** | Universitäts- und Landesbibliothek **Darmstadt** | Goethe-Universität **Frankfurt am Main** | Pädagogische Hochschule **Freiburg** | Justus-Liebig-Universität **Gießen** | Fernuniversität **Hagen** | TIB **Hannover** | Universitätsbibliothek **Kassel** | **Karlsruhe** Institute of Technology (KIT) | Universitätsbibliothek **Kiel** | Universitäts- und Stadtbibliothek **Köln** | Zentral- und Hochschulbibliothek (ZHB, **Luzern**) | Hochschule der Bundesagentur für Arbeit (**Mannheim**) | Fachhochschule **Münster** | Carl von Ossietzky Universität **Oldenburg** | Landesbibliothek **Oldenburg** | Universitätsbibliothek **Osnabrück** | Universität **Potsdam** | Universitätsbibliothek **St. Gallen**

Contents

Preface 9

Thomas Deissinger & Oksana Melnyk
Introduction 11

PART I. Theory and Practice of Governance in Teacher Training for Vocational Education and Training (VET) 15

Lena Freidorfer & Philipp Gonon
The Vocational School Teacher (VET Teacher) Training System in Switzerland . . . 17

Erica Smith
VET Teacher Education in Australia: Three Levels across Two Sectors 35

Kevin Orr & Nena Skrbic
Initial Teacher Education in the English Further Education Sector: Continuity and Crisis 63

Selena Chan
Reform of Vocational Education (RoVE) in Aotearoa New Zealand: Implication on the Educators of VET Teachers 79

Thomas Deissinger & Oksana Melnyk
Vocational Teacher Training in Germany from the Governance Perspective 95

Richard Fortmüller
Standards in Vocational Education and Teacher Training in Austria 115

Paolo Di Rienzo & Giovanni Serra
Adult Education and Lifelong Learning: Strategic Competences and Teacher Professionalisation 131

PART II. Changes and Cooperation at the Project Partner Higher Education Institutions (HEIs) in Ukraine 147

Svitlana Tsymbaliuk, Maryna Artiushyna, Oksana Sarkisova, Tetiana Shkoda & Larysa Korvat
Institutional Changes and Partnership-Based Governance at Kyiv National Economic University named after Vadym Hetman 149

Valentin Usov, Tetiana Petukhova, Volodymyr Chernykh & Viktoriia Kozak
Implementation of Cooperation and Partnership in the Training of Teachers of Vocational and Technical Education at South Ukrainian National Pedagogical University named after K. D. Ushynsky 173

Mykola Dmytrychenko, Nataliia Bondar, Oleksandr Hryshchuk, Khalidakhon Bakhtiyarova & Lesia Shevchuk
Using New Approaches Based on Partnership in Training Vocational Teachers of Transport at National Transport University 193

Olena Kovalenko, Nataliia Briukhanova, Liudmyla Shtefan, Tatiana Bondarenko, Hanna Korniush & Nataliia Korolova
Establishing Excellence in Vocational Education Teacher Training at Ukrainian Engineering Pedagogics Academy 221

PART III. Ukrainian Vocational Teacher Training in a Broader Context 259

Valentyna Radkevych, Viktoriia Kruchek, Mykola Pryhodii & Daria Voronina-Pryhodii
Standards in Vocational Teacher Education in Ukraine: Problems and Fields of Tension 261

Oleksandr Kupriyanov, Tetiana Bondarenko, Halyna Yelnykova, Denys Kovalenko, Roman Nesterenko & Tetiana Ruslanova
Civil Society and Policy Dialogue in Vocational Education and Training 293

Preface

The goals to ensure inclusive and equitable quality education, promote lifelong learning opportunities for all, and foster sustained, inclusive, and sustainable economic growth, full and productive employment, and decent work for all are among the 17 goals outlined by the United Nations for sustainable development (SDG 4 and SDG 8). Vocational teachers play a crucial role in the successful achievement of these goals. Therefore, the attention devoted to matters of vocational teacher education should not only be the concern of researchers and scientists but also the focus of policymaking.

It is my honour and pleasure to introduce this preface to a book that addresses and delves into the pressing issues within vocational teacher education. It offers valuable insights to those seeking answers and solutions for challenges in vocational education, the labour market, and youth employment. These complex issues can only be effectively addressed with the assistance of qualified and motivated vocational teachers possessing the necessary and relevant competences to navigate these domains.

This book is the result of a four-year Erasmus + project titled "New Mechanisms of Partnership-based Governance and Standardization of Vocational Teacher Education in Ukraine" (PAGOSTE). While changes in any system take time, the initiatives introduced by this project in vocational teacher training in Ukraine have set the stage for success. Processes aimed at enhancing governance and fostering collaboration among various stakeholders have been set in motion. Despite external challenges such as the Corona pandemic and the Russian aggression, progress has been made, and the momentum continues.

I believe that the insights shared in this book can inspire and encourage the implementation of positive changes in vocational teacher education. By doing so, we can ensure that the welfare of tomorrow is safeguarded by the dedicated vocational teachers of today.

Oksen Lisovyi

Minister of Education and Science of Ukraine

Introduction

Thomas Deissinger & Oksana Melnyk

One of the significant challenges today is to provide vocational education and training (VET) to young people, which, on the one hand, should be relevant to the needs and expectations of the employment sector while, on the other, correspond to individuals' interests and capabilities. VET is widely acknowledged not only for its economic importance but also for its role in shaping individuals' professional identities and social integration.

The society of tomorrow depends on how young people are trained today. Hereby, competent and engaged vocational teachers, who possess twofold expertise as pedagogues and as specialists in their professional field, are relevant actors in the context of the VET system. Competences of vocational teachers define how successful the gap between the classroom instruction and real-world application of competences will be bridged. Additionally, professionalism of vocational teachers determines to a great extent learning outcomes by vocational learners and their smooth transition into professional life. At the same time, the profession of vocational teachers and trainers in many countries is considered as a semi-profession (Attwell, 1997; Grollmann, 2008). Such social recognition and standing reflects on the field of vocational teacher education (VTE). On one hand, it is expected to produce highly qualified specialists with dual competences as both pedagogues and experts in their respective professional fields (Deissinger et al., 2019). On the other hand, it often operates in the shadows of policy-making (Grollmann, 2008). Consequently, VTE faces a range of challenges that require special attention.

This publication addresses the pressing issues of VTE, focusing on institutional, organizational and governance aspects. *Firstly*, it summarizes the results of the four-year Erasmus+ capacity-building project "New Mechanisms of Partnership-based Governance and Standardization of Vocational Teacher Education in Ukraine" (PAGOSTE), funded by the European Education and Culture Executive Agency. The project's focus has been governance in VTE in Ukraine. An overarching quality criterion of successfully setting up VTE is to ensure that expectations of vocational schools and the motivations and competences of future teachers can be aligned. This "matching problem" is mainly rooted in a "theory-practice gap" as the "users" of vocational teacher qualifications, being the employers of future teachers, are normally not involved in deciding or at least influencing how teachers are trained and how their competences obtained in universities can be successfully applied in the classroom. This one-sided institutional reality explains why teachers do not feel well-prepared for their future occupational destination. *Secondly*, the book project was set up to reach beyond the narrow country context of the project and tried to explore challenges as well as good practices in VTE systems of other countries in and outside of Europe. Therefore, contribu-

tions from England, New Zealand, Australia, Italy, Germany, Austria and Switzerland have been written for this book.

The book is composed of three parts. The *first part* provides insights into global practices of VTE, addressing both theoretical frameworks and practical governance aspects. In the first chapter, VTE in Switzerland is analysed through the prism of historical development up to the present time. It deals with approaches to vocational teachers' professionalization that have changed over time and have to be adjusted to new challenges. The contribution on Germany comes up with a theoretical perspective of modes of governing against the background of the VET and VTE system. The next three chapters depict and discuss reforms and changes in VTE in Anglophone countries, such as England, Australia and New Zealand. By referring to these countries, it is possible to implicitly compare structures and institutional architectures of VTE in different skill formation systems – the collective system of Germany and Switzerland and the liberal skill formation system, which characterizes England, Australia and New Zealand. The first part also includes a chapter on Austrian VTE and the issue of competences of vocational teachers and their representation in training standards. The last chapter in the first part analyses the role of strategic competences for teacher professionalization discussed by the Italian project partners.

The *second part* is dedicated to analyzing the governance changes at the four Ukrainian universities that took part in the project. Within the Erasmus+ project PAGOSTE, each Ukrainian partner-university developed and piloted a concept of new or revised governance mechanisms based on the notion of partnership and cooperation with key stakeholders in VTE – above all vocational schools and employers. While each university tailors its concept to its specific programme specializations, common threads emerge: enhanced partnerships with vocational schools and employers obviously influence the competence development of prospective teachers both in a pedagogical and subject-specific way, as well as its professional relevance, and there are also increases in student satisfaction. The contributions from these universities also shed light on the impact of the ongoing war on higher education systems and how universities try to tackle these specific environmental challenges.

The *third part* covers issues beyond VTE. In the first chapter, the issues of standardization of the teaching profession are problematized and critically evaluated. The question of the role of civil society in the policy dialogue in the Ukrainian VET system is addressed in the last chapter. This question is of especially high relevance due to the ongoing transition of the Ukrainian state and the establishment of democratic institutions in the country.

We express our deepest gratitude to the authors, project partners and all individuals and organisations involved in the creation of this book. It is a result of collective efforts, dedication and commitment to enhancing vocational teacher education worldwide. We also extend our thanks to the European Education and Culture Executive Agency for providing the financial support to publish this book and, thus, contributing to raising awareness about the teaching profession in VET.

This book might be of particular interest not only to researchers and scientists from the field of vocational education but it can also serve as an introduction to the governance questions in vocational teacher training for readers from other target groups, such as students, policymakers, and other stakeholders dealing with VTE or its broader implications.

References

Attwell, G. (1997). New roles for vocational education and training teachers and trainers in Europe: A new framework for their education. *Journal of European Industrial Training, 21*(6/7), 256–265. https://doi.org/10.1108/03090599710171558

Deissinger, T., Braun, V., & Melnyk, O. (2019). VET teacher education in Germany. Structural issues and fields of conflict in Business and Economics Education. In T. Deissinger & V. Braun (Eds.), *Improving teacher education for applied learning in the field of VET* (pp. 29–72). Waxmann.

Grollmann, P. (2008). The quality of vocational teachers: teacher education, institutional Roles and professional reality. *European Educational Research Journal, 7*(4), 535–547. https://doi.org/10.2304/eerj.2008.7.4.535

PART I. Theory and Practice of Governance in Teacher Training for Vocational Education and Training (VET)

The Vocational School Teacher (VET Teacher) Training System in Switzerland

Lena Freidorfer* & Philipp Gonon

Abstract

This chapter examines in detail the training of VET teachers in Switzerland, which is characterized by a high proportion of practical work. Starting from a few historical cornerstones, this chapter will take an introductory look at the origins and history of VET teacher training.

In addition, we will address the question of the extent to which there is currently a discussion of VET teacher training in education, education policy, and vocational training research.

In order to better understand the system as we find it today, we explain in detail its specifics and, specifically, the two main training strands (VET teacher training for general education within vocational education and teacher training for specific occupational subjects).

In addition, we give insight into the place of activity and work of VET teachers: the vocational school.

Finally, we show that today's VET teachers, also due to newer requirements and ongoing changes (e. g., around transversal competencies or technological developments) are increasingly developing into "adaptation virtuosos" who are continuously professionalizing themselves in their daily working life.

Keywords: VET teacher education, systemic view, development, current system, Switzerland

1 Introduction: The Rise of VET School Teacher Training – a Genealogical Perspective

For vocational education, the first decrees in Switzerland in the 1880s did not address vocational schools or teachers, although some learners were already being taught. Teachers at general, commercial, or industrial training schools, as they were called at the time, were trained primary school teachers[1] or experienced specialists who taught

* Corresponding author

1 Women in particular were also trained early on to become primary school teachers.
They then later on entered the training system for vocational school teachers primarily through nursing and social professions or through training to become household teachers (Häfeli, 1983; Renold, 1998).

basic or additional knowledge specific to the profession. In addition, civic education, which was intended to prepare students for their tasks in the military and in society, played a special role and could be taught by the same teachers (Nager, 1914). Incidentally, from 1877 on they were also trained in drawing lessons (Wettstein, 2020).[2]

The fact that instruction took place at all was viewed very positively in the publications of the time; indeed, an expansion was enthusiastically advocated. With regard to the teachers, however, much was in flux or unregulated. For example, Gottlieb Hug, a teacher from Winterthur and author of the prize pamphlet "Das gewerbliche Bildungswesen" ("The Industrial Education System"), complained that teacher training and teacher remuneration were "inadequate" in many places. He considered the elementary school, as a feeder to vocational training,"insufficient" in terms of general education, as it violated the federal constitution, which required the cantons to provide "sufficient instruction" (Hug, 1881, p. 19).

The reformer expressly welcomed the efforts of local non-profit associations to promote instruction at general and industrial training schools, noting that many teachers "lack the necessary education" and that, in addition, these schools had to teach both fourteen-year-old secondary and supplementary students and thirty-year-old workers in the same occupational class (Hug, 1881, p. 21). Hug therefore unequivocally demanded that the state take over the teaching and learning at the upper secondary level and provide uniform management and supervision with the participation of the trade associations, based on expedient principles for this instruction and provided with the necessary financial resources and teaching materials. In addition, he argued that it must also be responsible for the training of suitable teachers (Hug, 1881, p. 23). Finally, he also deemed it necessary to move teaching from the late evening or even weekend hours and to conduct it instead as a daytime class (Hug, 1881, p. 53).

For merchants, the educational institutions, which were run by local merchant associations, were primarily intended to teach foreign languages – such as French, English, and other languages – in oral and written form, but also accounting and commercial arithmetic. Even Latin was taught in one association, the Bernese Association for Merchants, and advertised as a "general means of education" (EDH, 1896, p. 316). The situation of the teachers was described by one expert as "no special teachers" for these lessons. Inclination and chance played a role in filling positions and led to teachers of all school levels from elementary school to university teaching these subjects. In many cases, commercial teaching was a small sideline for these teachers. The marginal position of such teaching was not unproblematic, as other reports also indicate. The teacher, who had "worked herself tired" during the day at her actual teaching position, could not appear "with the freshness that would be necessary even for the somewhat jaded visitors to the commercial evening school" (EDH, 1896, p. 330). Nevertheless, it was a great advantage that the rich treasures of knowledge were revealed to the young world of commerce "in popular form" (EDH, 1896, p. 330). The beginning of schooling in the field of vocational education was characterized by a less formalized education,

2 In Switzerland, drawing schools and Sunday drawing schools later transformed into industrial training schools and, thinking a few steps further, ultimately into vocational schools (Wettstein, 2020).

imparted by more or less voluntarily motivated teachers for willing and eager apprentices and apprentice daughters.

Only few more or less scientific writings already dealt with the training system of vocational school teachers before the turn of the millennium. Rather than taking a look at the system, numerous writings focused on the persons providing the training (initially master teachers, “Lehrmeister,” and later also teachers) as well as the training locations (companies and then also vocational schools) (e. g., Jeangros, 1945; Spring-Zürcher, 1954).

After this introduction to the roots of the VET teacher training system, the following chapter will now focus on current scientific debates in education and vocational training research concerning the training of VET teachers in Switzerland.

2 Current Scientific Studies about VET Teacher Training in Switzerland

A systematic literature research and analysis showed that there are only a few scientific publications and non-scientifically based reports that provide information on the VET teacher training system in Switzerland. Occasionally, books on vocational education in Switzerland deal with the VET teacher training system in sections and then only sporadically (e. g., Wettstein & Gonon, 2009; Wettstein et al., 2014; Wettstein, 2020).

Among the scientific publications, reference should be made to a more recent publication by Barabasch and Fischer (2019). The authors discuss the Swiss VET teacher training system, its current opportunities, and challenges and compare it with the education system in Germany in order to identify similarities and differences between the two systems. In another publication, Keller and colleagues (2019) shed light on Swiss VET teacher training from a comparative perspective with the US.

Furthermore, Eberle et al. (2009), in addition to looking at teacher training in Switzerland as a whole (including grammar school education), deal with the training of VET teachers and also refer to the place of work of VET teachers: the VET school.

Even before the turn of the millennium, there were a few scientific publications that focused in different ways on the training of VET teachers. For example, a publication by Dubs (1999), entitled “Praxisbezug oder Wissensschaftsorientierung—Widerspruch oder proaktives Spannungsverhältnis in der Handelslehrerausbildung" (Practical orientation or knowledge orientation – contradiction or proactive tension in trade teacher training[3]), deals with the training of trade teachers. Another example is a 1992 publication by Howald, which deals with the specifics of the VET teacher training system in Switzerland and provides an overview of teacher training and continuing education. Straumann (1990) also discusses the pedagogical qualification of prospective teachers and describes the Swiss teacher training system in more detail. In 1988, another scientific article deals with the challenge that new technologies pose for voca-

3 Own translation by the authors.

tional school teachers (Kunz & Leist, 1988). Another earlier publication deals with the training of vocational teachers in Switzerland (Weber, 1982).

Furthermore, in the past and still today, educational reports (e. g., by the Swiss Coordination Office for Educational Research, SKBF) refer to the training of VET teachers and the courses of study available to them during their training, as well as their motives for taking up VET teacher training (e. g.: SERI, 2022; SKBF, 2007; SKBF, 2023).

In addition to scientific and non-scientific publications focusing primarily on the VET teacher training system in Switzerland (some of which have already been listed above), there are numerous analyses and research papers that deal with other more specific topics related to VET teachers in Switzerland. Some works take a historical perspective, for example by focusing on the emergence of the profession of "VET teachers", the beginnings of teaching at VET schools, or the development of professionalization of VET teachers (e. g., Barabasch & Fischer, 2019; Gonon, 2019; Wettstein, 2020). Others take a contemporary perspective, focusing more on VET school instructional design (Caduff et al., 2010; Schmid Leupi, 2013), in-service and continuing education of teachers (Fischer, 2017), various teacher portraits, and different understandings of the roles of VET teachers (e. g., educating, training, etc.) (Spring-Zürcher, 1954; Gassmann, 2015).

Other publications in Switzerland also focus on the mobility of VET teachers (Novak, 2018) or, more recently, on issues related to the acquisition of competencies, such as digital competencies for VET teachers (Rauseo et al., 2021).

The next section of this article focuses on the training of VET teachers. It will begin by introducing the specifics of the Swiss education system and presenting the desired characteristics of VET teachers, before providing an overview of the two main training strands.

3 Training of VET Teachers

3.1 Specifics of VET Teacher Training in Switzerland in Advance

The training of VET teachers in Switzerland runs according to a "consecutive organizational model" (Barabasch & Fischer, 2019, p. 6). This means that a higher vocational education or a university degree is required to complete the training to become a VET teacher. Accordingly, the secondary vocational pedagogical training follows initial professional training (Barabasch & Fischer, 2019; Maurer & Gonon, 2013).

Furthermore, training in Switzerland is characterized by a close integration and interlocking of theory and practice. Before beginning their training, prospective teachers are already expected to have a certain amount of professional experience (at school and/or at the workplace), depending on the branch of training they have chosen (see section 3.3. for more details on this topic), and thus already have some knowledge of school and/or workplace (training) practice (SKBF, 2007). Some VET teacher training

institutions require, for example, letters of reference from companies or VET schools where the prospective teachers are working currently (Wettstein & Gonon, 2009).

Another specific feature of the training of VET teachers in Switzerland is that the training is not only possible in a full-time but also in a part-time programme. It is also possible to choose between training as a teacher in the main or secondary profession (see, e. g., PHZH, 2023).

The aim of the training courses is to provide prospective teachers with appropriate training in subject-specific, pedagogical, and methodological-didactic areas (The Federal Assembly of the Swiss Confederation, BBG, 2002, Art. 46).

3.2 "Desired Characteristics" of VET Teachers

In some publications on the training of VET teachers or on the training system in Switzerland, desirable characteristics of prospective teachers at VET schools are also noted (see, among others, Gonon, 2019; Städeli & Grassi, 2012; Schmid-Leupi, 2013; Wettstein & Gonon, 2009).

VET teachers are described therein as persons who show patience, empathy, assertiveness, or, for example, enthusiasm (e. g., Gonon, 2019; Schmid-Leupi, 2013). They show pleasure in working with young people and are able to deal with unexpected situations. Furthermore they are able to cope with apprentices who show a lack of interest or who resist specific learning tasks. Moreover, they are able to maintain a certain inner distance and are willing to question and understand the behaviour of young people (Schmid-Leupi, 2013). VET teachers should see themselves in a certain way as educators, be aware of their role as role models, and enjoy leading a class (Schmid-Leupi, 2013). They should also be interested in learning processes and be willing and able to patiently and persistently promote individual learning (Schmid-Leupi, 2013).

Today, in light of the development of new technologies as well as an increasing flood of information, VET teachers also have to be "learning facilitators" (Gonon, 2019, p. 438) in order to accompany learners in their individual learning process to an ever greater extent. This means that VET teachers are capable of assisting apprentices in their acquisition of knowledge and taking an interest in their learning processes (Gonon, 2019). As a result, there is an increasing demand for teachers to engage with apprentices' individual learning and to take on the role of a learning coach (Keller & Barabasch, 2022).

It also seems to be increasingly necessary for VET teachers to continue and further their education individually in the interest of their own professionalization (Fischer, 2016).

3.3 Overview of the Two Main Training Paths: VET Teachers for General Education (ABU[4]) and Occupation-Specific Education (BKU[5])

There are two main training courses for teachers of VET schools in Switzerland. One is the teaching diploma for general education (ABU) and the other is the teaching diploma for occupation-specific education (BKU)[6].

In addition, there are the following (post-qualifying) training strands, which also seem worthy of mention.

For post-qualification, ABU or BKU teachers or also teachers who already have a gymnasium teaching qualification can still acquire a diploma for teaching in the area of the Berufsmaturität[7] (BM) (see, e. g., PHZH, 2023; or EHB, 2023). As a rule, this is called an additional vocational pedagogical qualification and is offered, for example, at the University of Zurich ("Universität Zürich," abbreviated: UZH) or also several universities of teacher education ("Pädagogische Hochschulen," abbreviated: PH), often in cooperation with the Swiss Federal Institute for Vocational Education and Training (EHB) (see also UZH, 2023).

For people who want to teach not only in VET school classes at secondary level II, but also in the area of higher vocational education at tertiary level B, there is also the possibility of obtaining a teaching diploma for teaching at higher VET schools ("Höhere Fachschulen," abbreviated: HF) as a secondary profession (see, e. g., SDBB, 2022).

Training for VET school teachers is regulated in legislative terms by the Federal Vocational and Professional Education and Training Act (BBG, 2002), the Vocational Training Ordinance (Swiss Federal Council, BBV, 2003), and the framework curriculum for VET professionals (SERI, 2015).

It should be added that the training of teachers of VET schools in Switzerland is carried out at universities of teacher education (PH), the Swiss Federal Institute for Vocational Education and Training ("Eidgenössische Hochschule für Berufsbildung," abbreviated: EHB), and at the University of Zurich (UZH)[8].

In the following two subsections, the two main training strands, (a) general education teacher (ABU) and (b) professional education teacher (BKU), will be described in more detail.

3.4 Teacher Training for General Education (ABU)

Persons who want to become ABU teachers must have a teaching diploma for compulsory schooling (a teaching diploma recognized by the EDK[9]) or a university degree (from a university of applied sciences, a university, or the Swiss Federal Institute of Technology) in a subject close to the ABU subject complex (consisting of the two main

4 The German term is "allgemeinbildender Unterricht" or the abbreviation "ABU".
5 In German, "berufskundlicher Unterricht" or in abbreviated form "BKU."
6 This includes the teaching diploma Teaching at Commercial Vocational Schools.
7 This means a professional baccalaureate, which in Switzerland can be obtained accompanying the apprenticeship or even after completion of the apprenticeship.
8 Concerning the training of the additional vocational pedagogical qualification for teachers at vocational baccalaureate schools.
9 The EDK is the Swiss Conference of Cantonal Ministers of Education. It is an association of cantonal government members who are responsible for the areas of education, training, culture, and sport in Switzerland.

areas of society and language). Below are some examples of degree programmes with a proximity to the two subject complexes – a degree in German studies, history, or even economics.

In addition, certain training institutions have further requirements, such as on-the-job experience (usually six months) or ongoing employment on a smaller scale at a VET school. This is to ensure that the prospective teachers are already familiar with the practice of VET school or company-based training (see, e.g., EHB, 2023; Caduff et al., 2010).

The training to become an ABU teacher takes between two and four years, as does the training to become a BKU teacher. This depends on whether the course of study is completed full time or part time, or whether the qualification as a teacher is sought in the main or secondary profession. The teaching degree in the major includes a total of 1,800 learning hours[10], equivalent to 60 ETCS. The training in the minor subject comprises 300 learning hours and corresponds to 10 ECTS (Swiss Federal Council, BBV, 2003).

The content for the training to become an ABU teacher is divided into the following two learning areas:

The first is society, comprehensively the following eight thematic areas: ethics, identity and socialization, culture, ecology, politics, law, technology, and economy. The individual topics are not considered in complete isolation from one another but rather in an interdisciplinary manner (Uhr et al., 2022).

The second is language and communication (communicative language skills and their use in personal, professional, and social contexts).

It should also be noted that these two learning areas are equally important in the training of ABU teachers (Gonon, 2021; OPET, 2006; SERI, 2015). Both learning areas refer to different subject-specific parts and provide general knowledge that can later be used by the apprentices, for example in solving professional problems. In connection with this, both learning areas refer to the personal, professional, and social reality of the learners (SERI, 2015).

In the course of the training, the prospective teachers deal with questions about the subject didactics of general education or vocational education, get to know and use different methods of knowledge acquisition and transfer, and complete courses set under titles such as “Introduction to Vocational Education,” “Constitutional Law,” “Economics,” or “Young Adults in Vocational Education” (see also PHZH, 2023).

In addition, they also complete internships in the course of their training (PHZH, 2023).

It should also be added that future ABU teachers are prepared for a topic- and activity-oriented design of lessons (Barabasch & Fischer, 2019). However, ABU teachers are prepared not only to impart specific subject knowledge to learners but also to

10 Learning hours include attendance times, independent learning and development phases, personal as well as group work, further events in the course of the training, learning checks, or also the practice and testing of what has been learned (e.g., in the course of internships at vocational schools) (Swiss Federal Council, BBV, 2003).

accompany and advise apprentices in their professional training and development. (The same applies to BKU teachers.)

In the preparation for teaching internships and also in their later everyday professional life, the (prospective) VET teachers refer to the framework curriculum for general education, which is the basis for the development of school curricula in the area of ABU throughout Switzerland and across the cantons (OPET, 2006).

In the course of their training, prospective teachers of VET schools can take elective subjects in addition to the prescribed compulsory subjects. At some training institutions, ABU and BKU teachers can choose from the same overview of electives. Electives are offered, for example, in the following subject areas: collaborative learning, social skills, ICT skills, or entrepreneurship (PHZH, 2023).

The ABU teacher training programme concludes with a federally[11] recognized diploma for teaching general education at VET schools. Subsequently, the teachers can undergo further training at teacher training colleges or other training institutions. Some ABU graduates take a Master of Science in Vocational Education at the Swiss Federal Institute for Vocational Education and Training (EHB) or a Master in Educational Science at the University of Zurich (Wettstein & Gonon, 2009; Barabasch & Fischer, 2019).

After completing their training, ABU teachers usually work in full- or part-time positions at VET schools or teach in various adult education institutions (Wettstein & Gonon, 2009; Barabasch & Fischer, 2019).

3.5 Teacher Training for Occupation-Specific Education (BKU)

The training mentioned in the title usually requires a degree from a higher vocational education (e. g., completion of a vocational examination[12] or a higher technical examination[13]) or a university degree (e. g., degree from a university of applied sciences or university) in the area to be taught. In BKU teaching, and thus also in teacher training, there is a strong focus on the connection between theory and practice, so that particular emphasis is also placed on a good practical knowledge of the prospective teachers (SERI, 2015).

Depending on the institution providing the training, further professional expertise or knowledge in a particular area to be taught is required. As a rule, practical experience at a company (six months), teaching experience at a VET school, or, for example, a letter of recommendation from the VET school where the prospective teacher last taught are also specified as additional requirements by the training institutions (Wettstein & Gonon, 2009; Schmid-Leupi, 2013).

11 "Federal" means that, in accordance with the Swiss Constitution, a diploma is recognized throughout Switzerland.

12 The professional examination (abbr. "BP") is the first form of professional specialization after completion of basic vocational training. The BP is part of higher vocational education and training, which in the Swiss education system is located at the tertiary level (B) alongside universities (tertiary A). Upon passing the examination, students are awarded a federal certificate of proficiency (Wettstein & Gonon, 2009).

13 The Higher Professional Examination (abbr.: "HFP") is also understood as a further specialization at tertiary level B, which represents an extended professional specialization and usually qualifies the holder to take on management functions in the respective professional field (Wettstein & Gonon, 2009).

BKU students are often lateral entrants (Hof et al., 2011; Schmid-Leupi, 2013). They are often proven specialists with comprehensive job-related competencies who held management positions or were active as project managers before starting their education. As a result, they are not infrequently also used to working in teams, planning work processes, or organizing and leading group work and ultimately know working life very well (Schmid-Leupi, 2013).

The duration of the training is the same as that of ABU teachers and can be read again in section 3.4.

Furthermore, teachers for economy and society (W&G), classical commercial teachers, and teachers for information, communication, and administration (IKA – in former times these were office teachers) are also counted as vocational teachers (Barabasch & Fischer, 2019).

In the course of their training, prospective BKU teachers are taught thematic areas such as vocational pedagogy, general didactics, and professional field didactics or subject didactics (depending on their professional field). As part of their training, they partly complete similar modules as the prospective ABU teachers – for example,"Didactics of Vocational Education,""Introduction to Vocational Pedagogy." or also "Young Adults in Vocational Education"[14] (PHZH, 2021). In the course of their training, prospective BKU teachers, just as ABU teachers, also complete internships at VET schools.

In their training, they acquire methodological-didactic competencies and the ability to prepare vocational content didactically, to stimulate learning processes and processes of knowledge acquisition, and to support learners in these processes (SERI, 2015). In doing so, they also succeed in linking the specialist knowledge relevant to a specific occupation with practice (theory–practice transfer). For example, they learn how to teach apprentices what substances make up bricks and mortar, but also how to proceed in order to combine these two elements.

In the course of their training, prospective BKU teachers are also enabled to adapt the content they teach to the development of professions, company practice, and educational regulations. In addition, they are shown the importance of constantly dealing with changes in the world of work (Schmid-Leupi, 2013).

The training to become a BKU teacher is completed with a federally recognized diploma for teaching at VET schools in the professional field.

After completing their training, BKU teachers usually work at VET schools or in the further education sector. Many teachers only work part time at a school and also work at a company or run their own business (Schmid-Leupi, 2013; Wettstein & Gonon, 2009).

BKU teachers also have access to a wide range of continuing education and training opportunities. These are offered, as in the case of ABU teachers, at teacher training colleges or other training institutions (for examples, see also the section on the training of ABU teachers above).

14 Own translations by the authors.

Now that the education of VET teachers in Switzerland has been descriptively presented, the following chapter explains the place where teachers work and have a professional impact. The focus will then be on the vocational school as a place of learning and work.

4 The VET School in Switzerland as a Place of Teaching and Learning

Alongside companies and inter-company courses, VET schools are one of the three learning venues for basic vocational education in Switzerland. The sponsors of VET schools are usually the cantons, in some rare cases also associations or federations, and in even rarer cases the municipalities (Wettstein & Gonon, 2009).

Attendance at a VET school is compulsory for apprentices regardless of the vocational training they have chosen. Young people who complete a dual VET programme (rather than a full-time school-based VET programme) usually attend the VET school one or two days per week. Depending on the vocational apprenticeship or industry chosen, the proportion of school-based instruction in the first years of apprenticeship may be more than in the final years (Wettstein & Gonon, 2009; Maurer & Gonon, 2013).

The VET school is the one of the three learning venues where teachers teach theoretical training components to apprentices. Training at the VET school consists of vocational and general education (SERI, 2022; Wettstein & Gonon, 2009). “By teaching the theoretical foundations for practising a profession and through general education.” learners are promoted here by the VET teachers in “professional, methodological, and social competencies" (SERI, 2022, p. 10). At this learning site, teachers not only impart theoretical knowledge but also reflect with the learners on their experiences from company practice. Gonon (2019) also describes VET schools as “competence centres” with regard to their increasing tasks and requirements in the areas of education and continuing education (Gonon, 2019, p. 438).

VET schools have an independent educational mandate. Thus, teachers working at VET schools are responsible for supporting students in their personal development and in the acquisition of social skills. Through the general knowledge that they impart to apprentices, they give learners the opportunity to build up an important knowledge base that they can draw on, for example, in solving problems in the learning environment (BBG 2002, Art. 21). This knowledge base should then provide the learners with orientation in the two other learning locations and in their later everyday working life (see also Swiss Federal Council, BBV, 2003). Teachers at VET schools also take into account – and this is another educational mandate of VET schools – the different learning prerequisites and talents of learners and encourage them accordingly. Moreover, they consider the different needs of apprentices (e. g., learners with learning difficulties or with special abilities). They also ensure the equality of male and female learners and

strive for the elimination of disadvantages, for example with regard to apprentices with disabilities (Wettstein & Gonon, 2009).

A particular challenge for VET teachers can be the different learning performance as well as the different prior knowledge of the learners (depending on their basic vocational training).

In addition to conventional general and vocational education, VET schools also offer optional subjects, support courses, and preparatory courses for the vocational baccalaureate (Wettstein & Gonon, 2009). Occasionally, inter-company courses or final apprenticeship examinations are also held at VET schools. The VET teachers are involved in these additional areas of responsibility in different ways (Maurer & Gonon, 2013).

The working spaces of VET teachers are classic classrooms, group rooms, or, for example, rooms at self-study centres (Wettstein & Gonon, 2009).

The following section, which concludes this article, will now focus on challenges and the future of VET teacher training, with the aim of giving the reader a final outlook.

5 Challenges and the Future of VET Teacher Training in Switzerland

Vocational schools are currently undergoing a transformation process from traditional schools to "competence centres" that have to perform a variety of tasks related to education and training, which will sooner or later also have an impact on the training of vocational school teachers (Grollmann, 2005, p. 9). Further vocational training and higher qualification after basic vocational training play an increasingly important role. This must already be taken into account in basic vocational training. In addition to the special focus on other places of learning and the inclusion of cooperation between places of learning, it is in particular the requirement to be a learning guide that suggests a modified self-image of the teachers (Hartmann, 2012, p. 98).

As early as the 1990s, a diagnosis of impending change was made, primarily due to new technologies. Because of the "growing flood of information" to be managed, the teacher's task was to "assist apprentices in acquiring the knowledge necessary for a particular application" (Howald, 1992, p. 80). This role of learning support has been emphasized in studies since the turn of the millennium. At the same time, however, the task that teachers should continue their education and training is also emphasized (Fischer, 2016). In addition, it is still important to consider the further professionalization of those responsible for education in learning support and readiness for further training as a new professionalization requirement for vocational school teachers in vocational education as a significant task (cf. Gonon, 2018). In this context, prestige and status, i. e., the social recognition associated with this activity, must also be fought for, as Wolfgang Lempert noted in an empirical study at the beginning of the 1960s (Lempert, 1962, p. 104).

In order to secure the next generation of teachers at vocational schools and to open up career opportunities, it is particularly important to guarantee appropriate vocational

training and to present this as an attractive option. This even applies to Germany, which traditionally has a much more comprehensive range and corresponding structures for the training of teachers for vocational and commercial schools. Frommberger and Lange (2018) state that a high degree of formal professionalization is necessary for a "successful education".

In Switzerland, the new Vocational Education and Training Act (2002) and the Vocational Education and Training Ordinance (2003) have created clear regulations for the training of teachers at vocational schools. Teachers for the school-based parts of basic vocational education as well as for the vocational baccalaureate should have a teaching qualification for secondary level II, with an additional vocational pedagogical qualification at university level, a specialized education with a degree at tertiary level, and six months of in-company experience. The vocational part is further specified. In the framework curricula for VET professionals, the different types of teachers are described in more detail. For example, a distinction is also made between secondary and main occupation for vocational education and training. The timeframe for training and the standards for obtaining a diploma for general education teaching at vocational schools (1.800 hours) and for the additional vocational education qualification (300 hours) for teachers with a grammar school teaching qualification were also determined (OPET, 2011).

The typical vocational school teacher, however, is still often a career changer, whether after completing a university degree outside of school or after several years of professional activity in a school or non-school setting. The motives for entering a vocational school range from the desire to reorient oneself to dissatisfaction with one's previous work and professional position and the opportunity associated with entering teaching to accomplish a type of advancement and retraining (Novak, 2018).

On the basis of the work situation, which today requires largely individualized and permanent adaptation processes, the new vocational school teacher is also characterized as a "virtuoso of adaptation"[15] (Münk, 2001, p. 230), an attitude that – in view of unfavourable institutional conditions – is sometimes presented as a constraint (Maltritz, 2016) or, conversely, as a heroic disposition (see Gassmann, 2015, p. 13). Accordingly, the (new) professionalization should be geared towards acquiring specific competencies (transversal competencies such as critical thinking and problem solving) and indispensable attitudes situationally by testing possible alternatives for action. In this context, research-based learning is important (Schaffenrath, 2008, p. 367).

A corresponding need for action to adapt and revise the framework curricula for general education at vocational schools has been postponed until now in connection with other reform postulates within the framework of the alliance-partnership reform project "Vocational Education 2030" (Sterel et al., 2018, p. 189). Not only should vocational teachers be recruited on the basis of a solid professional foundation, but they should also undergo regular individual further training (Sterel et al., 2018, p. 192).

Overall, the position of the vocational school teacher has also changed since the early days of the VET system. They are no longer regarded merely as adjuncts in a sec-

15 Own translation by the authors.

ondary role to in-company training but rather as professionals providing independent learning support (or coaching). Vocational teachers in the 21st century are expected to be learners themselves and even more, enthusiastic learners. In addition to that they should also be creative, digitally professional, flexible and able to react quickly to changes, i. e., deal with new didactic requirements (Rauseo et al., 2021; Zhou et al., 2022; Zogolowek, 2018). In this way, they enable young people to develop further in the world of work and in the education system on the basis of pedagogical training and technical scientific knowledge. It is also part of their "new" role to empower learners, who engage independently and critically in social coexistence and should be prepared for the demands of an open and unknown future.

References

Barabasch, A., & Fischer, S. (2019). Die Berufsschullehrpersonenausbildung in der Schweiz und in Deutschland [Vocational teacher training in Switzerland and Germany]. In A. Barabasch & C. Baumeler (Eds.), *bwp@ Spezial 16: Berufsdidaktik in der Schweiz: Internationale Einbettung, Ausdifferenzierung und konkrete Umsetzung* (pp. 1–21). https://www.bwpat.de/spezial16/barabasch_fischer_spezial16.pdf

Caduff, C., Hundertpfund, A., Langhans, E., & Plüss, D. (2010). *Unterrichten an Berufsfachschulen: Allgemeinbildender Unterricht (ABU)* [Teaching at vocational schools: General education (ABU)]. hep.

Dubs, R. (1999). Praxisbezug und Wissenschaftsorientierung—Widerspruch oder produktives Spannungsverhältnis in der Handelslehrerausbildung? [Practical relevance and academic orientation - contradiction or productive tension in trade teacher training?]. In T. Tramm (Ed.), *Professionalisierung kaufmännischer Berufsbildung: Beiträge zur Öffnung der Wirtschaftspädagogik für die Anforderungen des 21. Jahrhunderts: Festschrift zum 60. Geburtstag von Frank Achtenhagen*. (pp. 300–323). Lang.

Eberle, F., Brüggenbrock, C., & Schumann, S. (2009). Bologna, Tertiarisierung und Standortkonzentration: Der Reformprozess der schweizerischen Lehrerbildung vor seinem Abschluss [Bologna, tertiarisation and concentration of locations: The reform process of Swiss teacher education before its conclusion]. *Pädagogische Rundschau*, *63*(6), 683–694.

Eidgenössische Hochschule für Berufsbildung (EHB). (2023). *Ausbildung Lehrpersonen für Berufsmaturitätsschulen (BM)* [Training of teachers for vocational baccalaureate schools (BM)]. https://www.ehb.swiss/ausbildung-bm-lehrpersonen-mit-hochschulabschluss-im-fach

Eidgenössisches Handelsdepartement (EDH). (1896). Der Fortbildungsschulunterricht in den kaufmännischen Vereinen [The continuing education classes in the commercial associations]. In EDH (Ed.), *Die Handelsschulen und der kaufmännische Fortbildungsunterricht in der Schweiz* (pp. 305–332). Stämpfli.

Fischer, S. (2016). *Schulentwicklung—Bildungspolitische Wunschvorstellung oder pädagogische Realität?* [School development - wishful thinking in education policy or pedagogical reality?]. Lang.

Fischer, S. (2017). Zur Nachhaltigkeit von Lehrerweiterbildung in der Schweiz [On the sustainability of teacher training in Switzerland]. *Zeitschrift für Weiterbildungsforschung – Report, 40*(3), 241–259. https://doi.org/10.1007/s40955-017-0101-5

Frommberger, D., & Lange, S. (2018). *Zur Ausbildung von Lehrkräften für berufsbildende Schulen. Befunde und Entwicklungsperspektiven* [On the training of teachers for vocational schools. Findings and development perspectives]. Friedrich-Ebert-Stiftung.

Gassmann, C. (2015). *Berufsbildung in der Schweiz—Gesichter und Geschichten. 16 Interviews mit Profis aus Schule, Kurszentrum und Betrieb* [Vocational Education and Training in Switzerland-Faces and Stories. 16 interviews with professionals from schools, course centres and companies]. hep.

Gonon, P. (2018). In einer stärkeren Professionalisierung liegt durchaus Potenzial [There is definitely potential in greater professionalisation]. *Schulblatt Kanton Zürich, 1,* 12–14.

Gonon, P. (2019). Berufsfachschullehrperson quo vadis? Blick zurück und nach vorn [Vocational school teacher quo vadis? Looking back and forward]. In D. Holtsch, M. Oepke, & S. Schumann (Eds.), *Lehren und Lernen auf der Sekundarstufe II: Gymnasial- und wirtschaftspädagogische Perspektiven. Bern, Switzerland* (pp. 419–429). hep. https://www.zora.uzh.ch/id/eprint/171060/

Gonon, P. (2021). Wird ABU (allgemeinbildender Unterricht) an Berufsfachschulen überleben? [Will ABU (general education teaching) survive at vocational schools?]. In C. Caduff (Ed.), *Perspektiven auf den Lernort Berufsfachschule. Festschrift zum 60. Geburtstag von Christoph Städeli.* (pp. 167–183). hep.

Grollmann, P. (2005). *Professionelle Realität von Berufspädagogen im internationalen Vergleich—eine empirische Studie anhand ausgewählter Beispiele aus Dänemark, Deutschland und den USA* [Professional reality of vocational educators in international comparison-an empirical study using selected examples from Denmark, Germany and the USA]. wbv.

Häfeli, K. (1983). *Die Berufsbildung von Mädchen: Zwischen Familie und Beruf* [The vocational education of girls: Between family and career]. Lang.

Hartmann, M. (2012). Berufsbild für Lehrkräfte berufsbildender Schulen als Grundlage für Lehrerprofessionalität [Professional profile for teachers of vocational schools as a basis for teacher professionalism]. In M. Becker, G. Spöttl, & T. Vollmer (Eds.), *Lehrerbildung in Gewerblich-Technischen Fachrichtungen.* (pp. 97–118). wbv.

Hof, S., Strupler, M., & Wolter, S. C. (2011). Quereinsteiger in den Lehrberuf. Am Beispiel der schweizerischen Berufsbildung [Career changers in the teaching profession. Using the example of Swiss vocational education and training]. *Swiss Leading House Economics of Education—Firm Behavior—Training Policies, Working Paper No. 59.*

Howald, M. (1992). *Aus- und Weiterbildung der Lehrkräfte an Berufsschulen in der Schweiz. Bestandesaufnahme und Perspektiven zur Weiterentwicklung* [Initial and continuing training of teachers at vocational schools in Switzerland. Stocktaking and perspectives for further development]. Difo-Druck.

Hug, G. (1881). *Das gewerbliche Lehrlingswesen* [The industrial apprenticeship system]. Westfehling.

Jeangros, E. (1945). *Die Vergütung des Lehrmeisters an den Lehrling. Für brauchbare Arbeit* [The remuneration of the master to the apprentice. For useful work]. Schriftenreihe des kantonalen Lehrlingsamtes Bern.

Keller, A., & Barabasch, A. (2022). Coaching to support apprentice's ability to manage their own (further) competence development: Results of a case study and their implications. *Journal of Education and Work, 35*(8), 858–870.

Keller, A., Zirkle, C., & Barabasch, A. (2021). Focal points of VET teacher training: A comparison of VET teacher education in the USA and Switzerland. *Compare: A Journal of Comparative and International Education, 51*(6), 843–861. https://doi.org/10.1080/03057925.2019.1682519

Kunz, W., & Leist, W. (1988). *Die Herausforderung der neuen Technologien an den Berufsschullehrer der fachkundlichen Richtung. Bericht über ein Symposium des Schweizerischen Institutes für Berufspädagogik* [The challenge of new technologies to the vocational school teacher of the technical direction. Report on a symposium of the Swiss Institute for Vocational Education]. SIBP.

Lempert, W. (1962). *Der Gewerbelehrer—eine soziologische Leitstudie* [The trade teacher-a sociological guideline study]. Ferdinand Enke.

Maltritz, M. (2016). *Das berufliche Selbstverständnis als Determinante professionellen Handelns. Empirische Studie im Englischunterricht an berufsbildenden Schulen* [Professional self-concept as a determinant of professional action. Empirical study in English lessons at vocational schools]. wbv.

Maurer, M., & Gonon, P. (2013). *Herausforderungen für die Berufsbildung in der Schweiz. Bestandesaufnahme und Perspektiven* [Challenges for vocational education and training in Switzerland. Stocktaking and perspectives]. hep. http://www.hep-verlag.ch/herausforderungen-berufsbildung

Münk, D. (2001). *Der Gewerbelehrer als Anpassungsvirtuose—Ausbildungsanspruch und Berufswirklichkeit* [The trade teacher as a virtuoso of adaptation - training aspirations and professional reality]. wbv.

Nager, F. (1914). *Übungsstoff für Fortbildungs-Schulen* [Practice material for further education schools]. Huber.

Novak, P. (2018). *Berufliche Mobilität von Lehrpersonen: Eine empirische Untersuchung zum Berufswechsel von Primarlehrpersonen zu Berufsfachschullehrpersonen für Allgemeinbildung an Schweizer Berufsfachschulen* [Occupational mobility of teachers: An empirical study on the career change of primary teachers to vocational teachers of general education at Swiss vocational schools]. Waxmann.

Office for Professional Education and Technology (OPET). (2006). *Berufliche Grundbildung: Rahmenlehrplan für den allgemeinbildenden Unterricht [Basic vocational education: framework curriculum for general education]*. https://www.sbfi.admin.ch/sbfi/de/home/bildung/bwb/bgb/allgemeinbildung.html

Office for Professional Education and Technology (OPET). (2011). *Rahmenlehrpläne für Berufsbildungsverantwortliche [Framework curricula for VET professionals]*. OPET.

Pädagogische Hochschule Zürich (PHZH). (2021). *Studienplan für den Studiengang "Berufskundlicher Unterricht an Berufsfachschulen" (Hauptberuf) an der Pädagogischen Hochschule Zürich* [Study plan for the degree programme "Vocational Teaching at Vocational Schools" (main occupation) at the University of Teacher Education Zurich]. https://stud.phzh.ch/globalassets/stud.phzh.ch/sek2/studienplan_bk_hb.pdf

Pädagogische Hochschule Zürich (PHZH). (2023). *ABU-Studiengang im 4K-Modell: Studienbeginn FS 23* [ABU study programme in the 4K model: start of study FS 23]. https://stud.phzh.ch/globalassets/stud.phzh.ch/sek2/semesterplan_abu_4k-modell_fs23.pdf

Pädagogische Hochschule Zürich (PHZH). (2023). *Geplantes Wahlpflichtangebot der Abteilung Sekundarstufe II / Berufsbildung im Frühlingssemester 2024* [Planned elective course offered by the Secondary Level II / Vocational Education and Training Department in the spring semester 2024]. https://stud.phzh.ch/globalassets/stud.phzh.ch/sek2/geplantes_wahlpflichtangebot_fs24.pdf

Pädagogische Hochschule Zürich (PHZH). (2023). *Sekundarstufe II/Berufsbildung [Secondary level II/vocational education].* https://stud.phzh.ch/de/studiengange/Sek2/

Rauseo, M., Antonietti, C., Amenduni, F., Dobricki, M., & Cattaneo, A. (2021). *Digitale Kompetenzen von Berufsfachschullehrkräften* [Digital competences of vocational school teachers]. https://www.ehb.swiss/sites/default/files/digitale-kompetenzen-von-berufsfachschullehrkraeften.pdf

Renold, U. (1998).*"Wo das Männliche anfängt, da hört das Weibliche auf"! Frauenberufsbildungsdiskussion im Spiegel der sozioökonomischen Entwicklung (1860–1930)* ["Where the masculine begins, the feminine ends"! Women's vocational training discussion in the mirror of socio-economic development (1860–1930)]. Selbstverlag.

Schaffenrath, M. (2008). *Kompetenzorientierte Berufsschullehrerbildung in Österreich: Das Lernaufgabenprojekt als Innovationsmotor*. wbv.

Schmid-Leupi, R. (2013). *Unterrichten an Berufsfachschulen: Berufskundlicher Unterricht* [Teaching at vocational schools: Vocational education and training]. hep.

Schweizerische Koordinationsstelle für Bildungsforschung (SKBF). (2007). *Lehrerinnen- und Lehrerbildung in der Schweiz: Bericht im Rahmen der Bildungsberichterstattung 2006* [Teacher education in Switzerland: Report within the framework of the Education Reporting 2006]. http://www.skbf-csre.ch/fileadmin/files/pdf/bildungsmonitoring/abstract_lehrer.pdf

Schweizerische Koordinationsstelle für Bildungsforschung (SKBF). (2023). *Bildungsbericht Schweiz* [Education report Switzerland]. https://www.skbf-csre.ch/bildungsbericht/bildungsbericht/

Schweizerische Dienstleistungszentrum Berufsbildung | Berufs-, Studien- und Laufbahnberatung (2022). *Lehrdiplom für den Unterricht an Höheren Fachschulen HF (im Nebenberuf)* [Teaching diploma for teaching at Höhere Fachschulen HF (part-time)]. https://www.berufsberatung.ch/dyn/show/2886?id=23842

Spring-Zürcher, H. (1954). *Der Berufsschullehrer als* Erzieher [The vocational school teacher as educator]. Gemsberg.