

Christof Nägele, Bill Esmond, Natasha Kersh and Barbara E. Stalder (Editors)

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Editors

Dr Christof Nägele, VETNET chair/link convenor of VETNET
University of Applied Sciences and Arts Northwestern Switzerland, School of Education

Professor Dr Bill Esmond
University of Derby, College of Arts, Humanities and Education

Dr Natasha Kersh, VETNET board member
IOE, UCL's Faculty of Education and Society

Professor Dr Barbara E. Stalder, VETNET chair/link convenor of VETNET
Bern University of Teacher Education

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Editorial - VET in an age of uncertainty

Professor Dr Bill Esmond

University of Derby, College of Arts, Humanities and Education

This seventh volume of *Trends in Research on Vocational Education and Training* arrives at a significant moment for European VET and VET research. As researchers from the Vocational Education and Training Network (VETNET) assemble for the 2024 European Conference on Educational Research (ECER) in Nicosia, policymakers and international agencies call on VET more than ever before to combat major problems of economic crisis and societal tension. Yet each of these challenges also requires VET to change itself, moving beyond the foundations of its past success. This volume illustrates some of the ways in which VET research addresses these challenges, reporting examples of recent and ongoing work by members of the network.

The successes of European VET's strongest systems in minimizing youth unemployment, especially during and after the recession that began in 2008, now lead to expectations that its role in (re-)training can overcome post-COVID educational disruption and economic dislocation, facilitating digital and green transformations at the heart of European hopes for the future (e.g. Cedefop, 2022; Council of the European Union, 2020; OECD, 2023). The stable skilled employment to which it once routinely guided European youth, especially in manufacturing occupations, has already given way to the more precarious, service-dominated labour markets of the 21st century. Now, the educational and economic disruptions of COVID-19 coincide with a slowing or incipient reversal of globalization (Avis et al., 2021; Krzaklewska et al., 2023). VET is expected to support digital transformation and the supply-chains of 'Industry 4.0', as well as the 'green transformation' and transition to low-carbon economies. Yet these potential transformations require new skills, and often higher levels of qualification, which VET cannot always easily provide (Hämäläinen et al., 2015; Nygren et al., 2020). If requirements for higher levels of study and qualification require 'academic' foundations, VET's preference for practical learning and assessment methods may prove inadequate, leading to alternative routes (Knight et al., 2022). As the sector offering the greatest access to migrant youth, VET is required to train and integrate recent arrivals to Europe, simultaneously providing solutions for export to countries in the Global South; yet migrant youth tend to access less valued transitions (Baethge & Wolter, 2015; Busse et al., 2023, Jørgensen, 2021), whilst VET's strong national roots rarely transfer successfully into new terrain (Pilz & Wiemann, 2021; Vogelsgang et al., 2021). As war, civil conflict and populist politics spread internationally, VET is expected more than ever to promote civic participation and democracy. Yet its motivations for students, who have rejected or been rejected by general education, centre on its close connection to working life (Basler & Kriesi, 2019; Neuenschwander et al., 2024). Inclusion in VET is seen mainly in terms of the labour market, from which VET imports its gender-specificity and other aspects of hierarchy (Schmid & Garrels, 2022). In short, the strengths that VET acquired with difficulty during a time of growth and relative stability (Bonoli & Gonon, 2023) can diminish, or turn into their opposite, when tasked with these new and more exacting requirements.

These urgent concerns are captured in this year's ECER Conference theme, 'Education in an Age of Uncertainty: Memory and hope for the future.' The conference draws on its 30 years of experience in examining educational problems theoretically and empirically, exploring these at a time when European identities and aspirations for the future are increasingly contested. This is nowhere more true than in VETNET, the biggest and one of the oldest ECER networks, a research community bringing together established and emerging researchers across Europe. The papers in this year's *Proceedings* are based on abstracts that were accepted following a double-blind peer review, for presentation at ECER 2024. The final papers have been reviewed



by the editors and VETNET board members, who have supported authors in revising and refining their contributions. They offer new insights into VET-related problems and developments across Europe and beyond.

Many of these papers address the challenges discussed above, sometimes in quite novel ways. Peters discusses the contribution of continuing education to the Bremen motor industry's adaptation to ongoing transformations. Relatedly, VET's relationship with changing labour markets informs Struck's discussion of vocational identity, with very different responses from manufacturing and healthcare learners. Meyne reports a project promoting the use and teaching of Artificial Intelligence (AI) in adult and vocational education. Kraus and Freidorfer's paper begins by asking whether transversal competences are necessary to such transformations but ends by returning to notions of *Bildung* and *Beruf*, which it argues could be understood as a response to the schism between general and vocational education. This approach suggests the kind of broadening of VET that is raised by questions of civic education: experiences broadening vocational education in Norway through engagement with civic education are reported by Syverstad and Kristiansen; relatedly, Duch examines democracy-related activities in Danish health and social care courses.

Among those addressing challenges for migrants and/or arising from migration, Vidmantas et al.'s comprehensive discussion of its effects, especially on labour markets, raises multiple important issues for European VET. In papers from a symposium on migrant transitions, others report studies of learning experiences: Laczik et al. report on young people with migrant backgrounds in English VET, drawing on learning careership theory; Keser Aschenberger on the lifelong learning experiences of Turkish migrant women, locating these in their life-course; Felder et al. discuss a pre-apprenticeship integration programme in Switzerland; Stalder and Schönbächler report the perspectives of those who were excluded from or did not complete this programme. Moving to perspectives from the global South, Hunink discusses the contribution transferring VET is expected to make to the economic progress of Latin America and its problematic outcomes in Costa Rica. Annen et al. explore the reputation and perceptions of the public Brazilian VET system, introducing a perspective from the Federal Institutes of Education, Science and Technology (FIs).

Others address more perennial problems of VET. Broek et al. discuss problems of lifelong learning and examine possibilities to integrate this into vocational settings. Engelage et al. revisit the recognition of prior learning (RPL) in Switzerland. Questions for teaching professionals are always important for VET studies. Here, Hiim and Sylte revisit vocational teacher education, Michek and Hloušková report their changing approaches to collaboration over time, whilst Hannes and Donovan discuss questions of trust, comparing approaches in England and Austria. More unusually, Arsenis and Flores discuss university students' transitions from work placement to the graduate labour market, a question with no little significance for contemporary VET.

We are delighted to offer this collection of papers as a contribution to the international debate on these themes both during and after the ECER conference. We thank all contributors for their valuable contributions to this volume and, more broadly, to the dialogue across our network that continues across such events as the Crossing Boundaries and Stockholm conferences and in the pages of our journal, the *International Journal of Research in Vocational Education and Training* (IJRVET). We commend this edition of the *Proceedings* to a wider audience of researchers, policymakers and practitioners now wrestling with the problems facing our field. Finally, we extend a warm welcome to old and new VETNET members gathering in Nicosia or watching news of the conference from afar.

We look forward to continuing these discussions at future VETNET events.

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Federal Institutes – Brazil’s Chance for a Broader Variety of VET Education?

Annen, Silvia

silvia.annan@uni-bamberg.de, University of Bamberg

Sailer-Frank, Sabrina

sabrina.sailer-Frank@uni-bamberg.de, University of Bamberg

Schiedeck, Claudia

claudiaschiedeck1609@gmail.com, Federal Institute Rio Grande do Sul

Abstract

Context: The reputation of Vocational Education and Training (VET) varies globally, often negatively influenced by perceptions of higher salaries and social recognition associated with academic professions. This study explores the reputation and perceptions of the public Brazilian VET system, particularly from the perspective of the Federal Institutes of Education, Science and Technology (FIs). Despite the necessity for skilled workers in Brazil, VET participation remains low, with high dropout rates in upper secondary VET.

Approach: This research aims to identify levers to improve the appeal of the Federal VET system to young adolescents and understand the challenges leading to their opting out of this pathway. Referring to the comprehensive model of participation in adult education and the skill ecosystem approach, the study examines individual and systemic factors influencing educational decisions. Data were gathered through 23 semi-structured expert interviews with rectors and faculty members across Brazil.

Findings: Findings reveal a positive perception of the FIs linked to comprehensive training and relevant professional knowledge. The availability of diverse educational programs within FIs aligns with rational choice theory, enabling individuals to maximise their utility. However, improving the standing of FIs requires a multi-perspective approach involving political cooperation and strengthening ties with the regional economy.

Conclusions: The establishment of a true skill ecosystem, with FIs as key contributors, is suggested as a pathway forward.

Keywords

reputation of VET, federal institutes, students' aspiration, Brazilian VET system

1 Introduction

Vocational education and training (VET) represent crucial pathways to facilitate access to the labor market, offering a diverse array of learning opportunities, particularly beneficial for young individuals lacking formal training (OECD, 2015). In the face of evolving challenges within both the labor market and the educational system, such as the increasing emphasis on professionalization, academization, and digitalization (Brunello & Wruuck, 2021; Guri-Rosenblit et al., 2007; Altbach et al., 2017; Cantwell et al., 2018), the significance of VET becomes



increasingly pronounced. However, the reputation of VET, notably in regions like the global South, remains modest, with Brazil serving as a pertinent example. In 2023, a mere 11% of Brazilian students aged 15 to 24 were enrolled in vocational programs, contrasting strongly with the OECD averages of 37% and 65% for the respective age brackets (OECD, 2023). Perceived status hierarchies within education and the economic relevance attributed to various educational paths significantly influence decision-making among young individuals (Marginson, 2016; Iloh & Tierney, 2014). This paper explores the epistemological underpinnings of these determinants of action, emphasizing social disparities in educational participation and the attainment of formal qualifications (Kroneberg, 2011; Zimmermann, 2020). The study aims to pinpoint strategies to bridge the gap between young adolescents and the Federal VET system in Brazil while uncovering the underlying challenges deterring them from choosing this educational pathway.

To achieve this, we provide an overview of the Brazilian VET System, with a focus on the Federal Institutes (FIs) and their unique characteristics, elucidating how the proliferation of higher education has reshaped the educational landscape. Subsequently, we introduce a theoretical framework grounded in rational choice theory and the skill ecosystem approach to dissect educational decision-making processes. The empirical segment, based on 23 expert interviews with FI professionals, culminates in recommendations aimed at enhancing the reputation and appeal of the Federal VET system.

2 Brazil's VET system

In Brazil, vocational education and training (VET) can be provided by both public and private institutions within the educational system. Upper secondary VET integrates general and vocational subjects, facilitating access to tertiary education, while apprenticeships target 14–24-year-olds at the secondary education level, combining practical and theoretical training (Matai & Matai, 2000; Kauer, 2014). Both pathways aim at professionalization in specific occupations, enabling VET students to access any type of university due to their secondary level education (Kauer, 2014, 29).

The Brazilian VET system has evolved since the 1940s with two main streams. The public federal system, funded by the government, offers free education to all students, while the so-called S-System schools (labour training institutions), funded by specific levies, primarily require students to pay for their education (Almeida et al., 2014). As of 2018, the S-System, due to limited capacity in the federal system, accounted for approximately 41% of enrolments in VET programs (Brazil, 2020). The S-System includes nine institutions that provide vocational qualifications and access to leisure and cultural activities for workers (Maximo, 2020).

The Brazilian Professional Education landscape has seen significant growth, with numerous new campuses established in recent decades alongside the university sector (Kauer 2014). This growth aligns with a societal shift where higher education is viewed as a means for social and economic mobility, particularly among the middle class (Kauer, 2014). The FIs, which are public, tuition-free, and government-funded, play a crucial role in this expansion. Courses range from short initial qualifications to integrated secondary technical programs, and even master's and PhD programs, a concept known as 'verticalization' (Matai & Matai, 2000). The creation of the Federal Professional Education Network, with FIs at its core, mirrors international trends in expanding higher and professional education and increasing policy transfers. This network aims to meet the demands of post-secondary education and its connection to the labor market while addressing the need for social mobility. The FIs are spread across various states and regions, including rural areas, with 85% of their 654 campuses located inland (Kauer 2014). Still, private education is generally considered better than public, resulting in a higher enrolment rate at private universities in comparison to the FIs (Schwarzman & Paiva, 2014). Furthermore, the period between 2019 and 2022 saw significant budget cuts and austerity measures that

adversely affected the FIs, limiting funding for their operations, infrastructure, and research (Kauer, 2014). This also affected the students' enrolment negatively, leading to lower participation and less students joining VET education. As Brazil undergoes political changes, the impact on the funding and functioning of educational institutes in general remains to be seen.

In summary, Brazil's VET system is characterized by a dual approach involving government-funded public institutions and the private S-System's paid programs. The expansion of FIs and the adoption of cooperative education models are key strategies aimed at improving access to VET and its quality in Brazil for all social classes. These initiatives reflect the country's efforts to balance public and private educational provision, ensuring broader access to VET and addressing the socioeconomic needs of its population. However, with the decreasing number of students enrolling at FIs, students' educational aspirations might be a hint towards the necessity of increasing the attractiveness of FIs.

3 Students' educational aspiration

Despite high demand, public VET in Brazil faces challenges in reputation (OECD, 2023). Education and inequality in Brazil pose significant challenges due to its diverse socio-economic landscape, reflecting broader societal disparities (Menezes Filho & Kirschbaum, 2019; Bertolin et al., 2022). VET participation in Brazil is notably lower than OECD averages, with a high 11% dropout rate in upper secondary VET (OECD, 2023). Although there has been a 6.4 percentage point increase in upper secondary professional education enrolment over the last decade, the growth rate remains insufficient to meet Brazil's educational needs, albeit showing improvement in 2020 (Educação, 2021).

These challenges stem from structural, cultural, economic, and policy-related factors such as lack of awareness, societal stigma, biases within the educational system, inadequate career counselling, resource constraints, economic disparities, limited employer engagement, policy complexities, and regional inequalities (Cabrera & La Nasa, 2000; Barnes-Teamer, 2003; de Oliveira Silva et al., 2020). Educational decisions are influenced significantly by socio-cultural factors like parental influence and peer dynamics (Hofmann et al., 2014), aligning with the skill ecosystem approach, with latter influencing the local labor market and therefore also influencing an individual's career choice by the jobs available. These factors hint towards the individual level with the socioeconomic and cultural dimensions as a crucial factor as to why students avoid further education. As FIs play a crucial role in offering free education across various disciplines, this might address the aversion of individuals to join further education. Still, participation in free public education is low, whilst the demand for public university placements consistently exceeds availability (Kauer, 2014). This raises questions about why students opt for fee-based education in the S-system when free alternatives like FIs exist. Against this background, the aim of this paper is to answer the following research question: Which individual and systemic factors influence Brazil's students' educational decisions, and how can the Federal system be modified to become a more attractive option for the students?

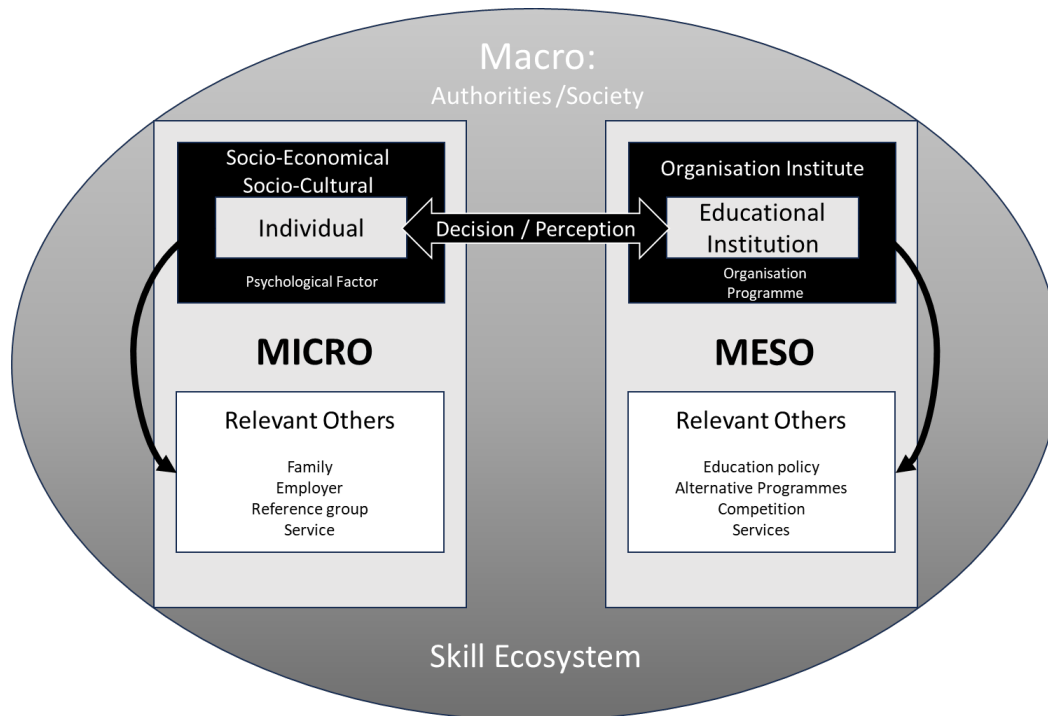
4 Theorising educational participation

Within this chapter, we outline students' educational aspirations to offer a first theoretical explanation regarding the rather low participation in educational programs offered by the FIs. To theorise educational choices, we refer to the comprehensive model of participation in adult education as well as the skill ecosystem approach.

According to Boeren et al. (2010), three levels of the market are relevant for the analysis of educational participation, visualised in Figure 1.

Figure 1

Factors on Students educational participation, adapted from Boeren et al. 2012



Individual Choice (Micro-Level)

- **Socioeconomic and cultural dimensions:** These dimensions define the need for education. Generally, the lower an individual's educational level is, the greater the need for education is. This relation is linked to both human capital theory, where individuals aim to maximize their value by upgrading their skills (Boeren et al., 2010), and rational choice theory, which explains participation as a preference-driven action with the individual aiming to maximize utility (Opp, 2013). Furthermore, perceived status hierarchies within education and the economic relevance attributed to various educational paths significantly influence decision-making among young individuals (Marginson, 2016; Iloh & Tierney, 2014). This highlights the heritage and local backing of individuals as crucial factors for participation in educational activities (e.g. Hofmann et al. 2014)
- **Costs:** Both direct and indirect costs play a crucial role in choosing educational activities. Boeren et al. (2010) outline direct costs such as enrolment fees and payments to participate in educational activities. Indirect (hidden) costs include childcare or neglected household duties due to participation in educational activities. These factors align with the cultural background and the family's financial stability as crucial impact factors on educational pathways.
- **Benefits:** Benefits are one of the main indicators influencing an individual's decision to choose educational activities. If the educational activity is perceived as important and beneficial, individuals are more likely to participate. However, if they prioritize private life, social contacts, etc., over educational activities, they might not participate. This also aligns with rational choice theory (Opp, 2013), where participation is driven by behaviour, subjective perceptions, and preferences for different actions.

Boeren et al. (2010) emphasize the importance of balancing these three indicators, as well as considering the psychological dimension, which includes whether one's attitude towards

education is positive or negative. This attitude results from motivation, confidence, and previous experiences.

Educational Supply (Macro-Level)

Educational institutions and their programs define the supply. However, this does not mean that specific programs meet the demands of every individual but rather provide a broad offer to meet the overall needs horizontally. Furthermore, these educational programmes focus primarily on the middle class as a target group, in terms of (participation) fees, certain enrolment conditions and certain social and cultural capital to support educational participation (Boeren et al., 2010). This creates an interdependency between individual factors and their influence on participation in the facilities versus the offer of enrolment for an often overlooked group of people. The design of the school and the atmosphere are also key elements in an individual's decision to participate in an activity at a particular institution (Mortimore et al., 1988). The atmosphere and the design of the providers are, in turn, subject to other stakeholders, such as the requirements of the economy, which in turn provide the impetus for the training programme and are supported by the providers, such as authorities, who will be outlined in the following chapter.

Authorities (Meso-Level)

These entities (e.g. government) regulate demand and supply, interacting with both to serve as a balance mediator. Crucial factors are regulation and mediation: Authorities play a crucial role in regulating and mediating between demand and supply. They provide financial stimuli, reduce indirect costs, offer services, and implement policies that affect both individuals and educational institutions. This regulation ensures that the educational market functions efficiently and equitably.

Skill ecosystem (Holistic Level)

From a holistic perspective, educational choices and professional development is influenced by the surrounding ecosystem, including all three above levels. The skill ecosystem approach (Finegold, 1999; Brown, 2022) emphasizes a holistic view of education and professional development shaped by local ecosystems. It integrates labor market needs with policy-driven educational supply, addressing skill challenges globally and locally. This approach is triggered by influential companies and fosters continuous support and interdependence among actors. Unlike short-term training theories, it adopts a comprehensive perspective, including long-term strategies like job restructuring. A key criterion for a skills ecosystem is the economic environment and the business models of the respective companies. The business environment structures the ecosystem and includes product market conditions, competitive strategies, company networks and financial systems (Buchanan et al. 2001, 22; Buchanan et al. 2017).

The skill ecosystem approach is a long-term, evidence-based and collaborative approach to identifying and addressing skills needs (Kilpatrick et al. 2007). This approach opens up new perspectives for skills development and the design of education and labour market strategies by recognising the dynamic and geographical nature of highly skilled competencies and considering how contextual and institutional factors influence the acquisition and application of skills (Brown 2022). A key aspect is the focus on the whole industry system (Alcorso 2006): Sustainable outcomes are achieved when the stakeholders involved focus not only on training, but also on the constraints to productivity and performance in the work environment and industry. It also emphasises increased cooperation between groups and organisations linked by business relationships to address common challenges - particularly workforce development (Alcorso 2006). This cooperation can range from simple information sharing to the coordination of labour requirements, such as mechanisms to redistribute labour (Briggs et al. 2022).

While primarily developed for the global North, its application in the global South faces challenges like cultural differences but offers insights into regional educational choices and qualifications. Brown (2022) e.g. analysed agricultural training programmes in India and showed how contextual factors influence the use of skills. The results showed that older men from the upper classes older upper-class men had more positive relationships with trainers and received greater benefits than other groups. The skill ecosystem approach differs from other theories such as the human capital theory (see Becker 1964) and the signalling theory (see Spence 1973) in that it goes beyond focussing exclusively on the supply side. In contrast to the one-sided human capital theory, this approach recognises that not all skills are equally usable on the labour market and therefore includes the demand side (Capsada-Munsech & Valiente 2020). In contrast to purely static approaches, it also considers how social and institutional environments influence the utilisation of skills (Brown 2022). Instead of focussing on short-term measures such as training, this approach takes a holistic approach with long-term measures (e.g. workplace design) (Kilpatrick et al. 2007).

This study focuses on the institutional and political framework conditions within the skill ecosystem, crucial for understanding the Brazilian VET system.

5 Methodology and sample

The results presented in this paper originate from an explorative qualitative study, which investigates the Brazilian society's perception of the FIs, considering their capillarity in the country. We developed a qualitative exploratory research design to analyse an under-researched area of the public VET system. We focus on the general perception of the Brazilian public VET system by the educational representatives at the FIs, as they are important advisers for young people regarding their educational pathways as well as the teachers working with those students at FIs who often have a close relationship to the students and support their interests, aspirations and choices. Aligning with the deductive-inductive intertwine, we conducted a literature review on current research regarding the Brazilian VET system and students' choices and developed a theoretical framework for the analysis and a respective interview guideline. We collected qualitative data by conducting expert interviews with selected educational representatives at the FIs. Expert interviews were chosen to gain specialised knowledge and a deep understanding from an insider perspective within the FIs. By interviewing the educational representatives in their institutional contexts, we take a problem-orientated perspective. The interviewees' knowledge is strongly linked to their professional role and is based on privileged access to information (cf. Meuser & Nagel 2009, 467ff.). They especially qualify as a group of stakeholders with valuable expert knowledge because the FIs cover the full range of educational degrees available in the Brazilian educational system, from secondary general education up to master's degrees and even the option for PhDs.

We carried out $n=23$ semi-structured expert interviews in Portuguese with 4 rectors and 19 faculty members from different regions and backgrounds across Brazil. Ten interviewees were male and 13 females. All Brazilian regions were included in the sample, with the Southeast region being more significant in numbers (South $n=4$; Southeast $n=7$, Centre West $n=5$, Northeast $n=4$, North $n=3$) due to the demographic representativeness and the number of FIs in this region. We anonymized, transcribed and translated the interviews from Portuguese to English. The data was analysed via structured qualitative content analysis in alignment with Kuckartz (2022) by identifying both inductive and deductive categories. A communicative validation of the analysis results took place at various points in the evaluation process.

6 Results

The positive reputation of FIs aligns with individuals' rational choice to maximize their utility. In this context, our results show that parents' attitudes towards VET also influence young

people's educational decisions (cf. Alavi et al., 2012). Furthermore, the availability of diverse educational programs within the same institution provides individuals with a range of (horizontal) choices to maximize their utility.

The organizational structure of FIs, allowing educational pathways from primary to higher education (verticalization), resonates with the availability of diverse educational levels within the same institution. This provides individuals with a vertical range of choices to maximize their utility. Moreover, this vertical integration from a holistic perspective optimizes resources, including infrastructure and faculty expertise (e.g. Buchanan et al., 2017).

Our results show positive perceptions of the quality of education the FIs offer, mainly linked to comprehensive training and relevant knowledge for professional contexts. In general, there is recognition of the importance of faculty and student satisfaction, considering the institutions' relevance within their local context, not only for technical qualification but also for helping people to form their principles and values. Nevertheless, the comprehensive and long-term improvement of the standing of FIs requires a multi-perspective approach in cooperation with the relevant political actors (Jambo & Pilz, 2018). This political discussion and the current changing situation within Brazil offer opportunities to intensify the ties between the FIs and the regional economy. This could lead to the establishment of a true skill ecosystem, with FIs being one of its main contributors.

6.1 Micro factors

Students choose the FIs primarily because of socio-cultural and economic factors such as proximity to home and the associated low costs. This relates to direct (e.g. travel) costs as well as the sunk costs such as looking after relatives and supporting the family. The focus is also on one's own interests and the realisation of these, as the following quote illustrates:

I believe that you have a technical background, and you have a profession that you can practice when you go to college, especially in the same area of activity, for example, become a technician. Do you like drawing, architecture? Become a building technician before doing architecture, Jeneci, okay? I remember very well that the students who attended a federal technical school in the area of mechanics must have ture, they were much, much more, they were much further ahead than the engineering students (VETinBrasil_JeSe09)

In this context, the maximisation of benefits is emphasised above all, while the (educational) costs should be kept as low as possible in line with the idea of rational choice. This benefit is also based on access to education without hurdles, in comparison to public schools, but also with the idea of being able to work part-time and pursue other activities due to the short transfer routes. The FIs offer students degrees of freedom here, which is why they are favoured. This makes the offered educational options accessible to less privileged classes in particular and enables education and support for these marginalised groups.

On the other hand, these exact degrees of freedoms reduce the FIs attractiveness to potential students. Empty classrooms due to high absentee rates, bureaucratic hurdles due to state funding, but also the strong specialisation of the individual FIs and their orientation mean that students do not take advantage of the opportunities offered by the FIs.

Ambivalent to the promotion of weaker educational strata, private universities are favoured by higher educational strata. This goes hand in hand with the gain in status that an individual achieves by completing and obtaining a degree at a private university. Individual interviewees also stated that employment at a private university was an attractive option for them and that the FIs were their second priority. Nevertheless, once teachers join the FI system, they perceive FIs as a very positive option with a wide range of opportunities, particularly specialisation but

also compatibility with other commitments, e.g. “I thought it was something like that, like, I didn't imagine that there was also this possibility (...)” (VETinBrasil_MaSe04).

6.2 Mesofactors

Individual educational choices are also influenced by the cultural environment (family, friends, local economy). Families who have had positive experiences with FIs tend to send their children to such institutions, whereas families with no experience are rather sceptical. Here, the cross-references between the two system levels (micro and meso) assumed in the above theoretical model emerge, in that the family has a significant influence on the educational decisions of individuals.

Cultural reasons also lead students to use the nearby FIs as an educational option, as they have an interest in supporting the local economy and entering the labour market there.

...is an instrument of opportunity for people who want to develop in this area, and who need to professionalise themselves for the job market, have that possibility at this institution. (VETinBrasil_JaSe05)

The statement clearly shows that local job requirements influence individuals' educational choices. From the holistic perspective of the skill ecosystem approach, local companies define the labour requirements, and educational institutions, in turn, serve these.

7 Conclusion

This study sheds light on the reputation and perception of the Brazilian VET system, focusing on the FIs. While the FIs are perceived positively for their comprehensive training and relevant professional knowledge, several challenges hinder their attractiveness to students. Addressing societal perceptions, improving accessibility, strengthening industry collaboration, and investing in quality and resources are essential strategies to enhance the appeal of the VET pathway. The broad coverage of VET programmes is a unique selling point of the FIs offer especially, enabling qualifications for all levels and making education tangible. On the other hand, this new approach is a controversial offer to the existing, but private and thus only open to the privileged class offers. Considering that public schools in Brazil are responsible for around 50 million students (Verhine & Vinhaes, 2018), FIs are a suitable alternative to broaden VET education and thus qualify it across the board. This results from the possibility of creating an offer according to individual interests and under the aspect of maximising benefits and the requirements of the prevailing job market. To address the disparities between the public and private educational sectors, even more resources such as internet access, libraries and computers will also be made available in public institutions, which should potentially counter educational heterogeneity even more strongly (e.g. Educucaao, 2021). Thus, an offer can be created that no longer promotes local preferences but supports individual qualification considering one's own interests (e.g. OECD, 2015). Supporting a skill ecosystem with economic players inducing their needs and FIs as key contributor, this approach could support the development of a skilled workforce and promote social and economic mobility in Brazil. Corporate investment in further training is also necessary to improve the interplay of aspects for achieving a skills ecosystem. In addition to the companies themselves, policymakers are also called upon to create the necessary education and labour market policy framework to realise these options for action. Policymakers should not neglect issues such as providing information on educational opportunities, job quality and career opportunities, labour market participation and qualifications. This highlights the necessary interaction between different players for a functioning skills ecosystem. Overall, the design elements based on the skill ecosystem approach are closely interrelated, and the political framework conditions and activities have a significant influence on

the success of such an approach. The high degree of interdependence between the ecosystem actors from Finegold's (1999) original definition is, therefore, also evident in the Brazilian context.

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Biographical notes

Dr Silvia Annen is a professor of Business Education and Management at the university of Bamberg. Her main research fields are comparative research in VET, (international) recognition of qualifications, educational pathways and occupational research in the commerce sector.

Sabrina Sailer-Frank, M.Sc., is a research associate and Ph.D. student at Prof. Dr Silvia Annen's Lab at the professorship of Business Education and Management. Her main research interests are Gamification, Game-Based Learning and Competences.

Dr Claudia Schiedeck is a retired Professor at the Federal Institute Rio Grande do Sul. She coordinated the International Chamber of the Brazilian Board of Rectors from 2012 to 2015. Her research focuses on the internationalization and comparative analysis of Vocational and Education Training (VET) systems in Brazil, particularly the Brazilian Federal Network of Institutes.

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University-To-Work Transition and Work Placements: Evidence of Heterogeneous Pay Dynamics¹

Arsenis, Panagiotis

p.arsenis@surrey.ac.uk, University of Surrey

Flores, Miguel

miguel.flores@ncirl.ie, National College of Ireland

Abstract

Context: This study contributes to the literature that explores university students' transition from work placement to the graduate labour market.

Approach: We developed a theoretical framework that underpins the relationships between work placement, job transition and graduate earnings. Based on this framework, we proposed three hypotheses of pay dynamics: the gain of a pay premium for graduates who remained with their placement employer ('foot-in-the-door' effect); the persistence of low pay as students transition from work placement to graduate employment (low-pay persistence effect); the pay progression as students transition from low-pay work placement to higher-paid graduate employment (low-pay stepping-stone effect). We tested these hypotheses by performing regression analysis on matched data from students' records, work placements and graduate surveys, for a sample of economics graduates who completed a work placement.

Findings: The results confirmed our hypotheses, providing evidence that graduates stand to benefit from remaining with their placement employer. Students who remained with their placement employer earned, on average, a salary premium of 10.2%. The low-pay persistence effect was stronger for those who found graduate jobs with a different employer, while the low-pay stepping-stone effect was stronger for those who remained with their placement employer after graduation.

Conclusions: This study contributes to a deeper understanding of students' transition from a university degree with work placement to the graduate labour market. The findings suggest that work placement students can improve their career prospects by securing graduate employment with their placement employer. However, more research is necessary to identify the mechanisms through which work placements enhance graduate employability.

Keywords

work placement, school-to-work transition, employability, earnings

1 Study's context and contribution

Nowadays, students in higher education face different pressures. Over time, the cost of a degree has increased, and the graduate labour market has become more competitive. Regarding the latter, employers report concerns that graduates are not ready for the workplace (e.g. Moore

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& Morton, 2017), a pertinent issue being their lack of work experience. Against this backdrop, universities attempt to address these matters by incorporating work placements in their degrees, to help students transition from higher education to the labour market. Similarly, employers use work placements to bolster their ranks with talented future employees (Jackson et al., 2022).

Even though work placements, and more generally work-based learning (WBL), have gradually become more prevalent, and the relevant literature has grown alongside that trend, especially focusing on their benefits to graduate employability (e.g. Perusso & Wagenaar, 2022; Jackson & Dean, 2023), there is a significant gap in the literature regarding the ways work placements may affect graduate employability (Inceoglu et al., 2019). In particular, little is known about students who continue working for their placement employer upon graduation. Understanding better the implications of remaining with the placement employer upon graduation could help educators offer better support to students, smoothing out the transition of the latter from university to work.

This study contributes to the graduate employability literature by shedding some light on the dynamics that characterise students' transition from work placements to the graduate labour market. Specifically, the study captures the transition to the labour market by focusing on graduate earnings, and it explores how these differ by type of transition, either remaining with the placement employer or working for a different employer upon graduation. To achieve this objective, the study first introduces a framework that offers the necessary theoretical underpinning for the dynamics that transpire as students transition from work placements to the graduate labour market. Next, inspired by this framework, the study presents three hypotheses that capture different aspects of the university-to-work transition.

The first hypothesis, called the 'foot-in-the-door' effect, suggests an earnings differential between graduates who remained with their placement employer and those who did not. The second hypothesis, called the low-pay persistence effect, suggests that students on low-pay placement may have higher chances of transitioning to low-pay graduate jobs than those on high-pay placements. The third hypothesis, called the low-pay stepping-stone effect, suggests that students on low-pay placements may be able to progress to high-pay graduate jobs. We tested these hypotheses by performing regression analysis using a sample of three cohorts of economics students who graduated from a UK university, having also completed a work placement during their studies. The data set covers a plethora of relevant covariates, including demographic and graduate job characteristics, as well as academic performance, previous job experience and other notable accomplishments.

2 Brief literature review and theoretical framework

2.1 Brief literature review

This study is part of the literature that explores the association between different types of WBL and graduate outcomes, in this case, studying the relationship between work placements and graduate earnings. Maybe surprisingly, results so far from relevant studies have been inconclusive. Earlier studies were not able to find a statistically significant association between work placements and graduate salaries (Moore & Reddy, 2012; Wilton, 2012). Conversely, more recent studies have shown that placement graduates earned higher salaries than those who did not do a placement (Brooks & Youngson, 2016; Jackson & Rowe, 2023). However, important limitations are observed in all these studies; they perform simple statistical tests (as opposed to more rigorous regression analysis), they do not address self-selection bias (i.e. that placement graduates may have achieved higher salaries regardless of their participation in a placement programme), and do not account for other covariates that could have explained the variation in earnings. Notably, Di Meglio et al. (2022) and Arsenis & Flores (2024) controlled for the self-selection issue, but they were unable to find a statistically significant effect of

placements on earnings. Evidently, more research is required in this area to convincingly show the nature of the association between placements and graduate earnings.

2.2 Theoretical framework

Our theoretical framework tracks the path students follow as they embark on their placement experience, during which they develop skills and, by the end of it, appreciate how employable they have become (either considering the current or a different employer). Finally, they transition to the graduate labour market, achieving a certain level of earnings. The framework is based on the notion of movement capital (Forrier et al., 2009), itself based on four dimensions that determine one's success in the labour market. These are the human capital, social capital, self-awareness, and adaptability. Human capital refers to knowledge and skills, while social capital refers to professional networks. Also, a self-aware student will be able to appreciate their strengths and acknowledge their weaknesses.

These four dimensions shape one's perceived employability, internal and external (Forrier et al., 2015). Internal refers to one's prospects at the current organisation, while external at a different organisation. Accordingly, these perceptions will lead to internal and external job transitions, and they may have implications for graduate outcomes, which in this study are salaries.

Whether students decide to make an internal or external transition depends on different factors, a crucial one being whether the current organisation offers opportunities that are aligned with their career aspirations. Also, students' commitment and performance in the workplace will determine the type of transition. These factors will shape students' perceived internal employability, and they may decide to make an internal transition, remaining with their placement employer. Conversely, students may decide to explore other careers. Thus their perceptions of external employability will be relevant in this occasion, and they will make an external transition.

Moreover, the framework accounts for contextual factors that may affect employability and graduate outcomes (Delva et al., 2021). While there are factors that are not observed (e.g. employer support and demand for jobs), other factors are observable, like the industry of the graduate employer. The industry matters for salaries, as certain sectors (e.g. the financial sector) offer higher salaries than many others.

3 Data, methods and results

3.1 Data and methods

The study's sample consists of three cohorts of economics graduates from a UK university. All graduates completed a year-long work placement; thus, their programmes' duration was four years in total (i.e. study for two years, next do a placement year, and finally return for the final year of the programme). Also, all graduates' placements were paid; in fact, it is rare that an economics placement is unpaid.

Two key methods were utilised to test the three hypotheses. First, an Ordinary Least Squares (OLS) (Wooldridge, 2010) model was employed to test the first hypothesis, the 'foot-in-the-door' effect. The key explanatory variable was whether the graduate continued working for the placement employer or not, captured by a dummy variable. Other explanatory variables include demographic characteristics (e.g. age and gender), academic performance, graduate job characteristics (job location and industry), as well as information obtained from students' curriculum vitae (e.g. previous job experience), the submission of which was a requirement of the placement programme. The response variable was graduate earnings adjusted for inflation.

The second method that was used to test the rest of the hypotheses involved an ordered logit model (Wooldridge, 2010), which is suitable for the type of response variables that this analysis requires. Specifically, the quartiles of the placement and graduate earnings

distributions were used to divide them into three different levels of salaries, low, medium and high. This classification allowed the analysis of transitions from a placement salary level to a graduate salary level. The transitions of interest are from a low placement salary to a low graduate salary (low-pay persistence effect) and from a low placement salary to a high graduate salary (low-pay stepping-stone effect).

3.2 Results

From a total of 557 economics graduates across three years, about half (47.6%) did a work placement. The sample size was further reduced because some students did not report their graduate salaries, and the study considered only full-time graduate employment. The final sample was 129 economics graduates who did a placement and either remained with their placement employer after graduation or not.

A preliminary exploration of the data showed that same-employer graduates earned higher salaries (the median difference was £3,706), while the range of salaries was wider for the different-employer group (about £43,000 as opposed to about £27,000 for the same-employer group). Moreover, it was observed that about a third of students who were on low-pay placement remained at that level as graduates, while more than a fifth transitioned to a high-pay graduate job. Overall, the preliminary results are promising and motivate the further exploration of the data utilising more advanced methods.

Utilising the OLS model to test the foot-in-the-door hypothesis, the regression analysis showed that placement graduates who remained with the same employer earned 10.2% higher salaries on average than graduates who were working for a different employer. This result was highly statistically significant and, as explained before (see section 3.1), the model controls for a plethora of covariates. Therefore, the analysis provides unambiguous support for this hypothesis.

The next part of the analysis focused on the other two hypotheses. Table 1 shows selected transition probabilities that capture the two hypotheses. Regarding the low-pay persistence effect (column 1), it is present in the full sample as well as the two sub-samples. In particular, 28.9% is the probability of a student who did a low-pay placement to transition to a low-pay graduate job. However, this probability falls to 18% for students who remained with their placement employer, while it reaches 30.8% for students who did not do so.

Similarly, results show support for the low-pay stepping-stone effect (column 2). The probability of a low-pay placement student to transition to a high-pay graduate job was 20.3% in the full sample. This probability rose to 29.8% for the same-employer group but fell to 18.7% for the different-employer group.

Overall, both effects are present in the sample, but there is variability between the two groups. Remaining with the placement employer seems to favour graduates, as the low-pay persistence effect is weaker, and the low-pay stepping-stone effect is stronger.

Table 1
Selected transition probabilities (ordered logit estimates, %)

Placement salary	Graduate salary	
	(1) Low	(2) High
Full sample	28.9	20.3
Low Same employer	18.0	29.8
Different employer	30.8	18.7

4 Discussion

Earlier research (e.g. Brooks and Youngson, 2016) suggested that students may benefit by remaining with their placement employer, but due to data limitations this proposition was not empirically tested. Indeed, national graduate surveys that are a key source of information regarding graduate outcomes, do not offer this level of detail. This study offered an alternative approach to this issue by matching reported employers found in placement data and graduate surveys. Di Meglio et al. (2022) showed that Spanish placement graduates who remained with their placement employer benefitted in terms of the time it took to find their first job and the latter being more aligned with their studies. This study lends more support to this type of transition to the graduate labour market by focusing on monetary gains.

Universities can help students make transitions through this channel by finding employers with well-established placement programmes that offer the possibility of entering graduate schemes by the end of the placement year. Alternatively, universities can encourage employers that do not offer work placement opportunities to create such pathways. To this end, local employers should be prioritised as they can be a more economical proposition for many students who live in the university area.

In addition, while this study's findings show that pay progression is possible as students transition from placements to the graduate labour market, it is not always the case. Many factors may contribute to this outcome, the quality of the placement being one of them. The latter suggests that placement providers should be chosen carefully by universities, on the basis of the training, support and overall learning experience their placement programmes offer. Equally important is to monitor student progression during the placement. Many students regard placements as beneficial (St Clair-Thompson & Chivers, 2019), but some may not feel they have done enough to appear competitive when they apply for graduate jobs. Universities should encourage students to reflect on the skills they have developed while on placement and use them strategically to increase the likelihood of pay and career progression.

5 Concluding remarks and limitations

This study's primary objective was to offer a better understanding of the path that placement students follow as they transition from university to the graduate market. Overall, the findings suggest that students benefit in monetary terms if they remain with their placement employer. Furthermore, the study's theoretical framework and empirical approach could inspire further research to study other outcomes (like job satisfaction) and in different contexts (like internships that are not part of an undergraduate programme).

The study has certain limitations that should be acknowledged. First, the sample is limited to economics graduates from a single institution; thus, there is scope for expanding it to cover other disciplines and include different institutions. Second, the focus was on an objective outcome, earnings, but other subjective outcomes, like job satisfaction, could be considered as well. Third, while the empirical models controlled for several factors, others may have influenced earnings. Future studies should utilise methods and data that account for factors that may affect outcomes.

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Biographical notes

Dr Panagiotis Arsenis is a Senior Lecturer in Economics at the School of Economics, University of Surrey, UK. His research explores graduate employability and how it is shaped primarily by work placements as well as other learning experiences.

Dr Miguel Flores is an Assistant Professor in Economics and the Programme Director for work placements at the School of Business, National College of Ireland. His research looks at university-to-work transition, work-integrated learning and graduate employability.

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Local Level Conducive Socio-Spatial Environments for Adults to Engage in Learning: Piloting an Empirical Exploration Based on Card-Sorting

Broek, Simon Dirk

s.broek@ockham-ips.nl, Open University (NL)

Van der Linden, Josje

c.j.van.der.linden@rug.nl, University of Groningen

Kuijpers, Maria Anna Catharina Theresia

info@marinkakuijpers.nl, Open University (NL)

Semeijn, Judith Hilde

judith.semeijn@ou.nl, Open University (NL)

Abstract

Context: Lifelong learning is essential for individual, societal, and economic benefits. Policy papers emphasise the importance of fostering learning environments that encourage adults to take responsibility for their own learning. Despite available research on learning cities (e.g. Byun & Ryu, 2012; Yang, 2012) and learning environments within education institutes, there is limited understanding of how organisations create a regional conducive environment for adult learning. This study addresses this gap by examining the socio-spatial conditions that activate vulnerable adults to learn, focusing on the Rotterdam-Zuid region in the Netherlands.

Approach: Broek et al. (2024) conducted a literature review to identify conditions that constitute an activating environment for adult learning. The review analysed 23 articles and reports, focusing on learning environments at three levels: specific institutions, learning cities and communities, and successful adult learning policies. The findings were categorised into conditions related to interventions and systems. The study used a card-sorting methodology to gather insights from representatives of 12 organisations in Rotterdam-Zuid (Rotterdam South) that support getting adults into learning. The organisations include work-focused organisations, VET institutions, welfare organisations, a library, and language providers. Interviews were conducted to assess the presence and effectiveness of learning conditions.

Findings: The study revealed several conditions conducive to the learning environment. Key stimulating conditions included learning that leads to progression in individual, societal, and economic life, learning provision tailored to needs, and trusted and motivating learning environments. Still, significant challenges were identified, such as inadequate outreach and communication strategies, insufficient monitoring and evaluation arrangements, and a lack of tailored guidance and counselling services. Other key issues seem to be the importance of political will, leadership, long-term funding, and effective partnerships in fostering a conducive learning environment.

Conclusions: The study concluded that while many effective learning environment conditions are in place, significant challenges remain. These include securing long-term funding, forging effective partnerships, offering tailored guidance, implementing robust monitoring arrangements, and ensuring outreach to adults most in need of learning. To further develop the learning



environment, a more person-centred approach, better alignment of initiatives, and integrating learning into everyday activities are essential. Future research should expand to other regions and include perspectives from adult learners to deepen insights and inform policy actions.

Keywords

adult learning, socially disadvantaged, learning culture, partnership in education and training, learning society

1 Introduction

Policy papers suggest that all adults need to learn across the lifespan (e.g. Council of the European Union, 2021; European Commission, 2017; Ministerie van Sociale Zaken en Werkgelegenheid & Ministerie van Onderwijs, Cultuur en Wetenschap, 2018). Continuous learning is needed for individual benefits, societal needs and economic needs (European Commission, 2018; Schuller & Desjardins, 2010). This calls for learning environments that are stimulating for adults to continue learning (Lifelong Learning Partnership (Flanders), 2021; Ministerie van Sociale Zaken en Werkgelegenheid & Ministerie van Onderwijs, Cultuur en Wetenschap, 2018), meaning that the socio-spatial context in which adults live and work is formed in such a way that it stimulates adults to take responsibility for their own learning. Despite available research on learning cities (e.g. Byun & Ryu, 2012; Yang, 2012) and learning environments within education institutes (e.g. Betts & Burrell, 2014; Mbeauache et al., 2022), little is known about how different organisations form a conducive environment at local and regional levels for adults to engage in learning.

Related to this knowledge gap, Broek et al. (2024) conducted a literature review on how the socio-spatial environment (Rutten & Boekema, 2012) can activate a vulnerable person to learn and which conditions constitute such an activating environment. Vulnerability is conceptualised as not being in employment, being at risk of (social) exclusion, facing health or financial challenges, coming from a disadvantaged background. Furthermore, a vulnerable person might not have an immanent positive stance towards learning, or their context does not encourage them to learn (Broek et al., 2024). The review analysed 23 shortlisted articles and reports that explicitly examined conditions of learning conducive environments at three different levels, namely literature on specific institutions (i.e. local learning centres) and focused on better understanding what makes the environment of these organisations conducive for adults to learn (Belete et al., 2022; Downes, 2011; Research voor Beleid, 2005). The second strand looked at literature around learning cities and communities to better grasp what conditions constitute a conducive spatial environment for learning and looked more specifically at the infrastructural dimension (Borkowska & Osborne, 2018; Byun & Ryu, 2012; Chang & Cha, 2008; Facer & Buchczyk, 2019, 2019; Faris, 2007; Lido et al., 2019; Ofei-Manu et al., 2018; Pavlova, 2018; Thummaphan & Sripa, 2022; UNESCO Institute for Lifelong Learning (UIL), 2015b; Yang, 2012). The third strand examined conditions of successful adult learning policies to understand the aspects that work conditional for setting up effective policies and interventions (Broek et al., 2010; Broek & Buiskool, 2012; European Commission, 2024; European Commission & ICF, 2015; OECD, 2019; Rodrigues et al., 2020; UNESCO Institute for Lifelong Learning (UIL), 2015a, 2020). This review resulted in a comprehensive list of conducive conditions for a local /regional learning environment, categorised into two groups. The first group consists of conditions for interventions and the second group relates to system-level conditions.

As conditions related to interventions are mentioned:

1. Outreach and communication strategies tailored to the communities to reach;
2. Learning environments that are trusted and motivating;
3. Learning provision tailored to needs;

4. Learning leading to progression in individual, societal and economic life;
5. Guidance and counselling services attuned to needs of targeted adults;
6. Professionals generating trust with targeted adults.

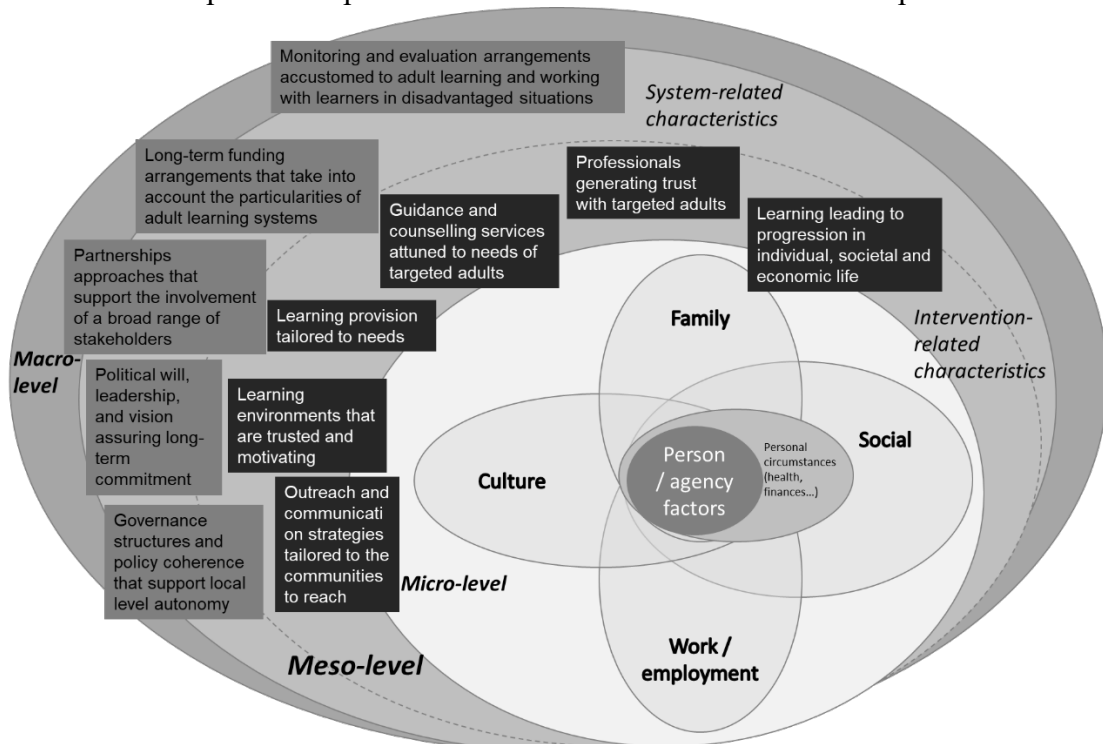
As conditions related to systems are mentioned:

7. Partnerships approaches that support the involvement of a broad range of stakeholders;
8. Governance structures and policy coherence that support local level autonomy;
9. Political will, leadership, and vision assuring long-term commitment;
10. Long-term funding arrangements that take into account the particularities of adult learning systems;
11. Monitoring and evaluation arrangements accustomed to adult learning and working with learners in disadvantaged situations.

Figure 1 positions the conditions in an analytical framework differentiating between micro-, meso- and macro-level conditions for stimulating learning (Boeren, 2017; von Hippel & Timpelt, 2010). Starting from the micro-level, earlier research identified a broad set of factors that stimulate and hamper learning (Broek et al., 2023), looking at agency-factors, personal circumstances and different social environments that can stimulate or hamper learning.

Figure 1

Conditions to develop a socio-spatial environment for adults in vulnerable positions to learn.



Note. Broek et. al. (2024)

This theoretical exploration of favourable learning conditions calls for an empirical exploration of how regional organisations view stimulating and hampering factors in their environment. The aim of this paper is to present preliminary findings from a study in the Netherlands, answering the following research question: what conditions are considered to be in place and conducive for learning, and which conditions are considered absent and in need of further action?

2 Method

This study was conducted in the Dutch region of Rotterdam-Zuid (Rotterdam South), which is a part of Rotterdam (the Netherlands). Rotterdam Zuid, encompassing the administrative committee areas of Charlois, Feijenoord, and IJsselmonde, has approximately 240,000 inhabitants and experiences a "significant accumulation of socio-economic problems in the weakest segment of the housing market in the Netherlands. This accumulation of problems is unprecedented in scale and intensity on a national level" (Team Deetman/Mans, 2011, p. 8). The national government and the region are investing 260 million euros to improve the living conditions for the residents of Rotterdam Zuid (Regio Deal Rotterdam Zuid). A large-scale National Programme Rotterdam Zuid (NPRZ) has been established for this purpose (NPRZ, n.d.). Adult learning and development are in this context of high importance, presenting an interesting case study on how organisations assess the learning environment for adults.

To conduct the study, together with the municipality a list of organisations was established that are active in adult learning. In the end, representatives from 12 organisations were interviewed, consisting firstly of organisations that primarily focus on getting adults into work through offering supported work-places and work-based learning opportunities (five organisations); secondly, education institutions that offer formal VET programmes to adults (two organisations); thirdly, welfare organisations that focus more on improving overall wellbeing of adults and also offer learning and development opportunities (two organisations); fourthly, a library, offering language and digital skills training opportunities; and finally, Dutch language providers, offering both non-formal and formal training programmes for migrants (two organisations). The representatives of the organisations concerned people that within their organisation focused on adult learning of vulnerable adults and had oversight on what happens within the organisation and more widely in Rotterdam-Zuid.

Representatives of selected organisations, being those responsible for organising training and reaching out to adult learners, were interviewed through a card-sorting methodology. Card-sorting is a synchronous exercise, conducted mostly face-to-face but also online, in which the interviewee is given physical cards to sort (Gravlee et al., 2018; Jindal, 2020). The primary aim of sorting is to understand how participants categorise items and the reasoning behind their groupings (Barton, 2015). Interviewees do not need to respond to questions in sequential order; they can revisit and revise their earlier decisions based on reflections prompted by new cards. The methodology hence allows the interviewee to make connections between the learning environment conditions and discuss them in their interaction. The methodology also enables combining qualitative and quantitative analysis of response patterns (Brent et al., 2021; Cataldo et al., 1970).

The face-to-face interviews were conducted at the premises of the participating organisations between October 2022 and January 2024. They lasted between 30 and 90 minutes. Before each interview, participants were given an information note outlining the study's purpose and their rights and were required to sign a consent form. The study design received approval from the ethical commission of the Open University of the Netherlands.

Each interview was audio-recorded, and photographs were taken of the final arrangement of cards on the board. The interviews with representatives of various organisations were transcribed and qualitatively analysed using Atlas TI, while Excel was utilised for the quantitative analysis of specific factors. This analysis combines thematic analysis (Braun & Clarke, 2006) and grounded theory analysis (Glaser & Strauss, 2017). We examined how respondents utilised concepts from a pre-developed theory (deductive qualitative analysis) and analysed the relationships between these concepts to identify patterns. This approach helped us understand the interplay of conditions within a regional learning environment (quantitative analysis).

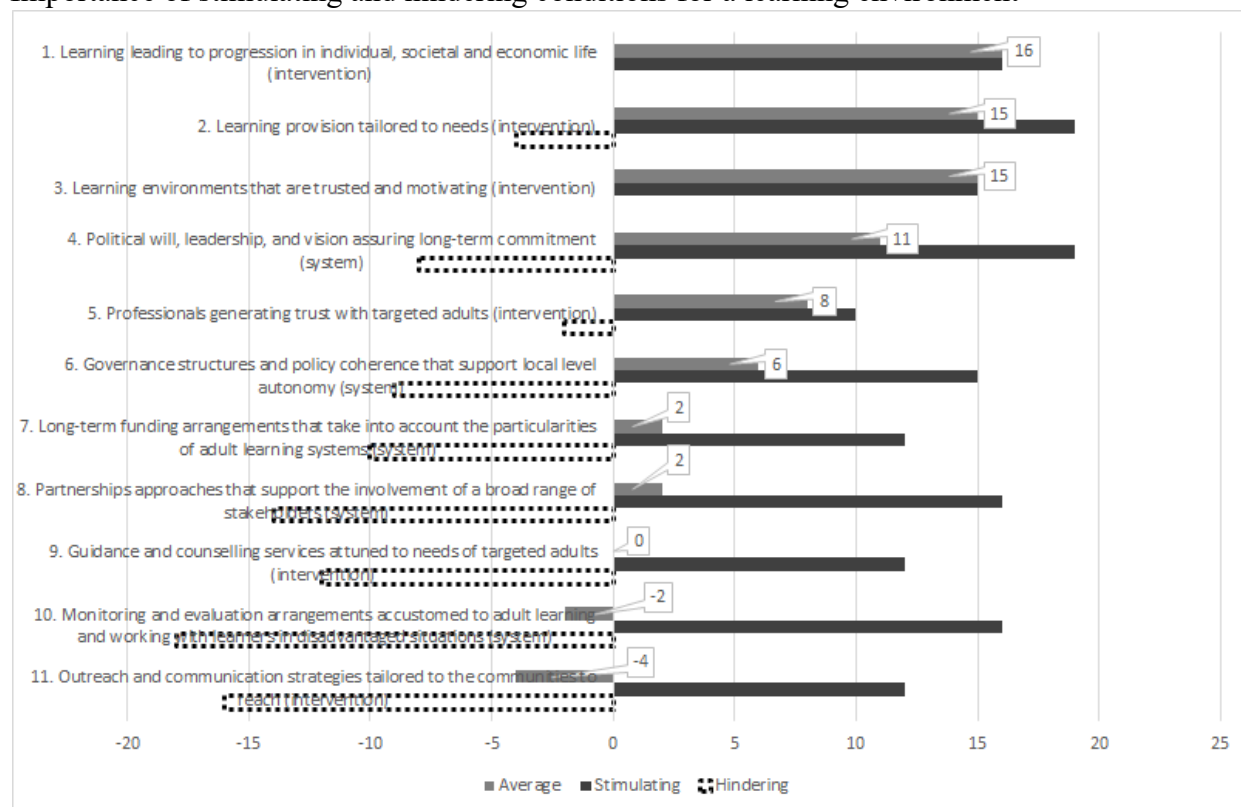
3 Results

The interviews with representatives of organisations through the card sorting method allowed us to obtain both an assessment of the importance of different stimulating and hindering factors for establishing a learning environment, and to obtain qualitative information on how representatives of organisations discuss whether conditions are in place or not. This result section presents the findings from these interviews by providing quantitative data, substantiated with qualitative information from the interviews.

To provide an indication of the importance of the conditions, for each learning condition as found in the literature a composite score was calculated. This score, as presented in Figure 2, indicates the extent to which the conditions stimulate or hinder the learning environment. For both stimulating and hindering factors, the most important conditions, as assessed by the interviewee, received a value of ‘3’, the second important conditions a value of ‘2’, the least important conditions a value of ‘1’ and those factors that did not play a role a value ‘0’. Figure 2 presents the composite scores of each condition on both their stimulating and hindering power and an average. As can be seen, some conditions are regarded as generally stimulating (‘learning leading to progression in individual, societal and economic life (intervention)’ (score 16), ‘learning provision tailored to needs (intervention)’ (score 15), and ‘learning environments that are trusted and motivating (intervention)’ (score 15)). Others are generally perceived as not in place and hindering the development of a learning environment (‘outreach and communication strategies tailored to the communities to reach (intervention)’ (score -4), ‘monitoring and evaluation arrangements accustomed to adult learning and working with learners in disadvantaged situations (system)’ (score -2) and ‘guidance and counselling services attuned to needs of targeted adults (intervention)’ (score 0)). The remaining conditions gathered both positive and negative reflections from the interviewed organisations, see Figure 2.

Figure 2

Importance of stimulating and hindering conditions for a learning environment



Note. Source Authors, N = 12, location in Rotterdam-Zuid

The remaining of this section discusses how interviewees present the different conditions (following the order as presented in Figure 2).

1. Learning leading to progression in individual, societal and economic life (intervention). In Rotterdam-Zuid, representatives of organisations positively assess the condition that learning aims to lead to tangible improvements in individual, societal, and economic life. They emphasise that work is not just an end but a means to facilitate learning and development. This shift is evident in their approach: "We say work is a means to learn. It is not a goal. Previously, work was a goal" (RZ_O02). Learning is geared towards enhancing self-reliance and providing practical outcomes, such as obtaining a driving licence or mastering the Dutch language, ensuring that participants can capitalise on what they have learned. One interviewee noted, "learning leads to improvement... in the broadest sense, whether in work, health, or social participation" (RZ_O09). This holistic approach ensures that education is context-driven and personalised, addressing specific needs and enabling significant personal growth and future opportunities. This tailored approach is deemed crucial, as one interviewee noted, "context-oriented learning" (RZ_O09) ensures that learners can capitalise on their newly acquired skills effectively.

2. Learning provision tailored to needs (intervention). The interviewed representatives of organisations also positively assess that the learning offerings are tailored to individual needs. As one interviewee highlighted: "It is not so much about the content of the lesson, but the guidance and attention, and the realisation that 'someone is willing to go the extra mile for you'" (RZ_O01). As expressed by several organisations, there is a strong emphasis on building self-confidence and providing personalised guidance. This approach involves offering new training and tools through collaborations, to identify the learning needs of the specific target groups and aim to transition people from "bread jobs to dream jobs" (RZ_O03). However, this personalised approach presents challenges due to the diverse and often conflicting needs of learners. For instance, in a small hospitality class (at a VET school), some learners may require a low-stimulus environment, while others thrive in more dynamic settings. Despite these difficulties, the overarching goal remains to provide tailored support that motivates individuals and prepares them for real-world scenarios. As one interviewee put it, "We say that you [i.e. the learner] are central, and we [i.e. organisation] are going to develop you" (RZ_O07). The commitment to personalised learning is reflected in the provision of individual development budgets and targeted language lessons.

3. Learning environments that are trusted and motivating (intervention). Similarly, the interviewed representatives of organisations are positive about establishing learning environments that are trusted and motivating, but not without signalling challenges. Organisations strive to cultivate a trusted and motivating learning environment, though its effectiveness varies by institution. Some representatives of organisations, especially those offering formal (VET) education and training, feel they excel in this area, while others are less positive as they lack the knowledge and infrastructure to develop a trusted and motivating environment for their target groups. Staff in educational institutes typically have strong pedagogical training, fostering trust and motivation. However, interviewees also see a tendency to overprotect learners, potentially hindering their autonomy. On the other hand, trust does not have to be built through pedagogical tools as representatives of welfare organisations indicate. House of Hope (informal community centre) provides a nurturing environment where participants feel valued and responsible, fostering growth despite their distance from the labour market. Ensuring a welcoming atmosphere is pivotal, especially in locations accessible to job seekers, avoiding intimidating settings that could deter them. As one interviewee noted, "it is essential to create an environment where learners feel safe and motivated" (RZ_O10). This grassroots engagement helps maintain a low-threshold environment, crucial for participants' comfort and willingness to engage.

4. *Political will, leadership, and vision assuring long-term commitment (system)*. The interviewed representatives of organisations assess the political will as generally positive, while a number of organisations also indicate the lack of this will as a hindering factor. Although there is notable political attention and financial support for vulnerable populations, implementation often fails. One participant highlighted, "there is political will and vision, but leadership and dedication are not always entirely there" (RZ_O01). Frequent changes in political leadership disrupt long-term initiatives, as new leaders often discard previous efforts. Additionally, the fragmented approach to governance, with different political agendas for education and employment, hampers holistic solutions. This was emphasised by a participant who remarked, "We think too much in silos...there is a lack of vision which hinders creating a stimulating learning environment" (RZ_O08). Despite these challenges, there is a positive acknowledgment of the efforts to support vulnerable populations across political regimes, with consistent attention and funding. One interviewee observed, "Despite the political colour, the vulnerable Rotterdammer always stays in the picture" (RZ_O02). Thus, it seems that while the political intent exists, operational fragmentation hinders the creation of a truly stimulating learning environment.

5. *Professionals generating trust with targeted adults (intervention)*. The interviewed representatives of organisations generally become a bit more negative about whether the professionals that work with targeted adults are able to generate trust while acknowledging the importance of establishing a learning environment. The ability of professionals to establish trust varies, with some being highly engaged while others less so. The professionals play a key role, as "they are the ones who need to earn the candidate's trust" (RZ_O01). However, success varies, with some professionals being highly engaged while others are less so. A municipality organisation aimed to get people closer to the labour market, for example, prioritises personal contact, with the belief that "if the professional wins the trust of a Rotterdammer [citizen of Rotterdam], then we see the chance that they will start to move, is greater" (RZ_O05). The role of teachers is crucial, especially those certified as Dutch as second language teachers or those with extensive teaching experience. One interviewee stated, "It is really important, as without it, people wouldn't try" (RZ_O09). Another interviewee noted, "we have many teachers whom learners want to stay with even after completing their course" (RZ_O06). The personal relationships built between teachers and learners significantly impact the learners' success, especially for those facing multiple life challenges. Maintaining these relationships and ensuring professionals are knowledgeable and empathetic is vital, as trust and familiarity are seen as essential to successful learning and development initiatives in the community. This sentiment is echoed across various roles, from job coaches to school social workers, who must keep track of multiple initiatives and maintain low thresholds for engagement. Overall, trust-building is seen as essential, with long-term professional presence significantly enhancing community trust.

6. *Governance structures and policy coherence that support local level autonomy (system)*. On whether effective governance structures are in place, the interviewed representatives of organisations differ. Governance structures are still evolving, with a focus on connecting chain partners informally rather than formally. This informal approach is seen in the interactions within the education and social sectors, where collaboration with the labour market is crucial for success. Despite efforts, the large scale of the municipality often leads to bureaucratic inefficiencies, with policy implementation differing greatly from smaller cities in the larger Rotterdam area. Respondents noted that there is a lack of coherence in policy. Additionally, due to ineffective connections between policies and partners, there is limited follow-up or monitoring through other programmes when people successfully exit a support programme. As a result, they often fall out of sight until they become vulnerable again. This lack of policy cohesion undermines the support provided to those in need.

7. *Long-term funding arrangements that take into account the particularities of adult learning systems (systems)*. As expressed by the interviewees, organisations face significant challenges in establishing a sustainable regional-level learning environment due to short-term project funding. According to an interviewee, “we get funding, but it’s only for a year” (RZ_O01). This piecemeal approach to financing hampers long-term planning and forces organisations to constantly secure new funding. Additionally, complex accountability and funding structures, such as the need to report to multiple ministries, consume substantial time and resources. Despite these difficulties, some organisations report sufficient funding for the near term. For instance, language training initiatives have recently seen longer-term contracts, enhancing stability. However, uncertainties remain, as highlighted by an organisation that expressed concern over potential future budget cuts, which could undermine ongoing efforts as one participant noted, “it’s fine for now, but this could change in five years” (RZ_O09). Another interviewee noted, “we must be creative and make do with what we have” (RZ_O11), underscoring the need for innovative resource management to maintain effective educational programmes amidst financial constraints.

8. *Partnerships approaches that support the involvement of a broad range of stakeholders (system)*. The interviewed representatives of organisations highlight the importance of partnerships and the involvement of all parties, both as being positive and as something that needs enhancement. A representative of a VET school exemplifies collaboration, with various stakeholders engaged in discussions. However, there's a consensus that partnerships often rely on key individuals who drive initiatives. “If you don't have those people, you can sit at the table all you want, but you won't get anything done” (RZ_O01). Collaborations vary among different municipalities and institutions. For instance, Zadkine (a VET school) integrates debt counselors within their education system, fostering low-threshold access to assistance. Yet, despite good intentions, true holistic approaches are often lacking, as every organisation tends to focus on its own objectives. Financial structures and accountability can also impede effective collaboration, with complex funding streams creating inefficiencies. Despite these challenges, there is a continuous effort to align and synergise initiatives, aiming to improve service delivery and support for vulnerable groups through coordinated partnerships.

9. *Guidance and counselling services attuned to the needs of targeted adults (intervention)*. Effective coaching and advisory support are seen as crucial for successful educational and employment outcomes. Coaches who are deeply involved in both educational and practical aspects can significantly impact learners' success, as demonstrated when a coach facilitated financial assistance from the municipality for a learner whose funds had run out. Despite the presence of job coaches and good collaboration between institutions, the support system has its limitations. One interviewee mentioned, “It is one of the most important conditions to help someone make a good step towards education or work” (RZ_O05). However, the abundance of advisory tools can overwhelm both learners and coaches, indicating a need for a more streamlined and effective approach. Ultimately, as expressed by the interviewees, the need for personalised support is paramount, but the current system is often insufficiently structured to meet these needs.

10. *Monitoring and evaluation arrangements accustomed to adult learning and working with learners in disadvantaged situations (system)*. According to the interviewees, the monitoring and evaluation condition faces significant challenges. One notable issue is the lack of reflection on processes, both at the political level and within organisations. A key problem is insufficient documentation, making it difficult to review and reflect on past projects. Additionally, projects often depend on individuals, and when these individuals leave, the projects fail due to the challenge of transferring established networks. One interviewee expressed frustration: “We do so much, but we don't always track what ultimately happens” (RZ_O01). Another challenge is the focus on short-term outcomes, such as learners’ progression within a year, rather than longer-term impacts on the labour market. As one respondent noted, “There is too

much focus on quantity instead of quality” (RZ_O04). Despite these issues, some organisations have implemented regular evaluations and built-in reflection moments, acknowledging that "reflecting is important to develop" (RZ_O05). Another interviewee highlighted the inefficacy of some monitoring tools, pointing out that sometimes, "measuring is not always knowing" (RZ_O09), indicating that data collection methods can be misaligned with actual project goals and outcomes.

11. Outreach and communication strategies tailored to the communities to reach (intervention). The condition that is assessed as being the least implemented is having outreach and communication strategies in place that are tailored to the adults to reach. While the interviewees underscore its importance, they also see this as a key weakness in the region. A significant issue highlighted is the need for direct engagement rather than relying solely on digital or traditional communication methods, as a beautiful poster won't suffice. Direct, personal contact is crucial but challenging due to bureaucratic layers; for instance, "at the municipality of Rotterdam, you have to go through five layers, and then you can hope to speak with an employment consultant" (RZ_O01). The target audience is diverse, complicating tailored communication efforts, with a significant portion being non-digitally literate. In addition, role models play a crucial role in reaching out to new adult learners; as one interviewee noted, "every time one of our Muslim colleagues is present, we receive over 40 new registrations" (RZ_O12). Effective outreach involves utilising various touchpoints such as schools, healthcare facilities, and community centres to meet people where they already are. However, the success of these strategies is inconsistent: "As far as I'm concerned, communication strategies from the municipality could be a bit more accessible" (RZ_O06), reflecting the need for more accessible and straightforward communication methods to effectively reach and engage the target population.

Upon finalising the card sorting exercise and discussing all conditions, the interviewees were also asked to reflect on the final results (how the cards were sorted) and on what policy recommendations emerged from this. The representatives of the organisations identified several success factors for fostering a learning environment among adults. Key to this is a person-centred approach, rather than a system-centred one. As one interviewee noted, the shift should be "thinking from the learner - what do you want, and making it concrete and actionable" (RZ_O01) with necessary financial support and offering personalising guidance. Tailored solutions are essential; instead of expecting individuals to adapt to the labour market, the labour market should be sensitive to individual strengths and limitations. For instance, providing internships and diverse experiences empowers people to take control of their learning paths. Role models are also crucial, especially those relatable to the community. An interviewee observed that when a colleague wearing a hijab interacted with people, it attracted significant interest and engagement from similar cultural backgrounds. This suggests that "examples of hope" (RZ_O06) are powerful motivators. Additionally, continuous support and longer-term follow-up are recommended to ensure lasting impact. Streamlining of available initiatives can also enhance effectiveness, as a more focused approach allows for better quality and understanding of the offerings. Lastly, practical and integrated learning opportunities, such as combining language and digital skills learning with everyday activities like cooking, help make learning relevant and accessible.

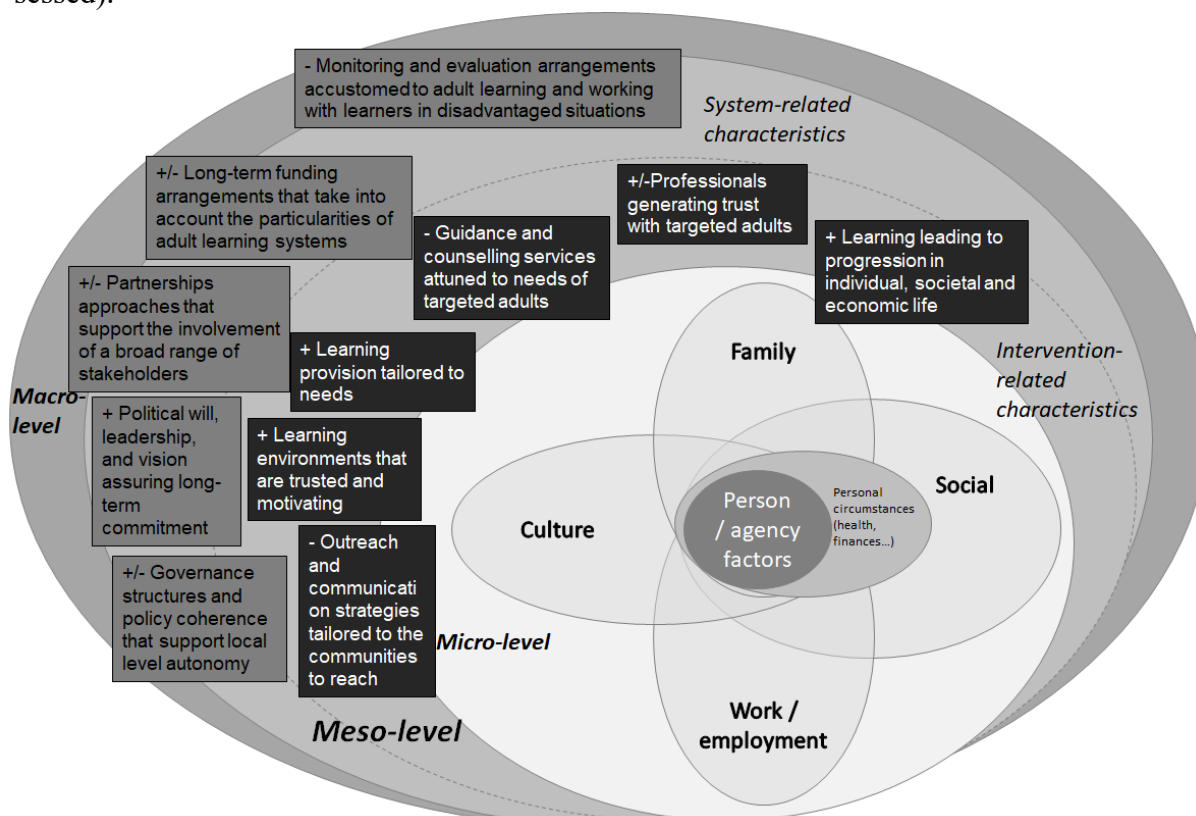
4 Discussion and conclusion

This paper aimed to answer the research question: at the regional level, what conditions are considered to be in place and conducive for learning and which conditions are considered absent and in need of further action? Based on the findings, we conclude that the interviewed representatives of organisations in Rotterdam-Zuid generally assess that many of the conditions for an effective learning environment are in place, but that there are significant challenges, especially concerning securing long-term funding, forging effective partnership approaches,

offering tailored guidance, having monitoring arrangements in place and most importantly, ensuring effective outreach to those adults that need learning the most. Figure 3 provides a characterisation of the Rotterdam-Zuid learning environment. To further develop the learning environment more could be done on these aspects, offering a more person-centred approach, investing in outreach by using role models, better aligning the available initiatives, and better integrating learning in everyday activities, see Figure 3.

Figure 3

Mapping conditions to develop a socio-spatial environment for adults in vulnerable positions to learn in Rotterdam-Zuid (+: positively assessed; +/-; neutrally assessed; -: negatively assessed).



Note. Adjusted based on Broek et. al. (2024)

As indicated, the literature review identified twelve conditions for an effective learning environment (Broek et al., 2024). Complementing the literature review, this empirical exploration in one region allowed a deeper reflection on the interplay of stimulating and hindering conditions. An observation emerging from the study concerns that those aspects that are under the direct control of the organisations are regarded as being generally in place (for instance, that the learning environment is motivating, or learning is tailored to needs), while those conditions that require cooperation, exiting policy silo's and reaching out to learners, are generally regarded as only to some extent in place. This observation underscores the need for more collaborative partnerships and holistic policy development to create a supportive learning environment for everyone (as expressed for instance in: Lifelong Learning Partnership (Flanders), 2021).

A limitation of the current study is that the interviews were only carried out in one region and that the study only took into account the views of representatives of organisations and not the views of adult learners. Widening the research to take into account these limitations is,

however foreseen. The data collection is currently expanding in more regions and also expanding in terms of conducting interviews with adult learners in vulnerable positions. Through this we aim to obtain an even deeper insight in how regional level learning environments work, how they differ and finally, what policy actions could be taken to strengthen those learning environments.

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Biographical notes

Simon Broek is PhD student at Open University, Heerlen, the Netherlands, specialized in adult learning, agency and learning environment. Furthermore, he is director of Ockham IPS a research company specialized in policy research related to education and work.

Dr Josje van der Linden holds a PhD on *Ensuring meaningful lifelong learning opportunities for groups at risk* from the University of Groningen. Josje holds a UNESCO chair on *Lifelong learning, youth and work* at Gulu University in Gulu, Uganda.

Dr Marinka Kuijpers, PhD, is endowed professor ‘Learning environment and career learning’ at Open University, Heerlen, the Netherlands, focussing on. lifelong development, career development, and professionalizing teachers, employees and employers.

Dr Judith Semeijn, PhD, is a Professor in Sustainable HRM at Open Universiteit, Heerlen, The Netherlands. Her research interests include topics in sustainable HRM, Sustainable Careers, and Lifelong Learning and Development for all.

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Pedagogy in Vocational Education with General and Vocational Perspectives – Democracy as an Example

Duch, Henriette

hedu@via.dk, VIA University College

Abstract

Context: This research focuses on social and healthcare courses within the Danish vocational education and training (VET) system. While the law mandates that democracy have to be part of the course goals, this requirement is not widely known among teachers. There are no policy documents on how to implement this, so colleges, training institutions, and teachers must develop a VET pedagogy that balances general and vocational perspectives in the case of democracy. Taking students' experiences and expectations into account is crucial.

Approach: The empirical study's methodological approach involves documentary analyses and interviews with students and managers from colleges and the health care sector. Furthermore, action research in colleges, including observations and interviews with teachers, was used. The theoretical approach is based on Dewey, Illeris, and Bernstein.

Findings: Findings indicate that some students require special attention if they are going to participate in democratic activities in the future. Since there are different understandings of democracy at colleges, internships and among teachers, there is also a variety of the balance between general and vocational perspectives. Due to varying interpretations of democracy among colleges, internships, and teachers, the balance between general and vocational perspectives also varies.

Conclusions: Overall, there's a need for greater awareness and discussion of democracy within educational contexts.

Keywords

democracy, pedagogy, vocational education and training, teacher education

1 Context and purpose

Democracy is the content in some general subjects, however, distinguishing between teaching in democracy and teaching with democracy is crucial but both perspectives are important for the educational obligation due to educating democratic citizens, and meeting stakeholders' expectations that the future labour force can take part in vocational decisions and discussions (Stray & Sætra, 2017; Nylund et al, 2020). While there's limited knowledge on implementing democracy in vocational education and training (VET), the International Civic and Citizenship Education Study underscores the need to focus on VET students (Bruun & Lieberkind, 2023).

Challenges related to teaching democracy can be found within the structure of the Danish Vocational Education and Training (VET) system. This structure includes alternating education, a division into general and vocational subjects, and multiple perspectives outlined in the Danish Vocational Education and Training Act (Ministry of Children and Education, 2024). Danish VET is a youth education aiming for students' "interest in and ability to actively



participate in a democratic society”; however, it also must give a “foundation for future working life” and “meet the labour markets needs for vocational and general qualifications” (Ministry of Children and education, 2024). Given these diverse perspectives, this research focuses on teachers’ pedagogical choices in balancing general and vocational perspectives while teaching democracy, as guided by the law. I refer to this delicate balance as the ‘double perspective’ in VET.

Since 2000, democracy has been directly addressed in the law for Vocational Education and Training (VET) and is explicitly stated as part of the educational aim. Prior to this, since 1989, it was mentioned indirectly, emphasizing that VET should contribute to personal development and foster an understanding of society and its evolution (Ministry of Children and Education, 1997). Starting in 1991, representative democracy became an integral part of the organizational structure in technical courses, whereas previously, it was primarily found in business courses within the VET system (Jensen, 1997). Social and healthcare education, the focus of this empirical study, has its own historical context but is now fully integrated into VET.

Internationally, some countries have well-established policies and research traditions related to the pedagogical approach to democracy (Stray & Sætra, 2017). In Denmark, discussions about democracy primarily occur in public schools and gymnasiums, but they are relatively new within Vocational Education and Training (VET), where few policy documents exist (Duch & Skov, 2023). Additionally, colleges and training institutions have diverse approaches and understandings of democracy (Duch, 2023a). Consequently, further research is needed, and the research question is how the pedagogy of democracy is practised in Vocational Education and Training (VET) based on the intentions of the law.

This contribution to the VETNET proceedings aims to enhance democracy in VET by focusing on pedagogy. While the research originates from one country, the concept of balancing general and vocational subjects is relevant across several European VET systems.

The theoretical framework includes Dewey’s (1916) understanding of democracy in education, Solhaug’s (2021) characteristics of different kinds of democracy, Bernstein’s (2000) notion of recontextualization, and Illeris’ (2006) model for learning and working patterns. The findings contribute to pedagogical discussions within VET and may inform development in colleges and teacher training.

2 Methods

The educational context is a social and healthcare college. The research project consists of four steps. First, it begins with dialogues with managers at a college, followed by step two that is interviews with 12 students in spring 2022. The interviews focus on students’ experiences and future expectations regarding participation in democracy. Based on the results and perspectives from the students, the third step involves interviewing managers from three colleges and three representatives from the training in autumn 2022. These colleges are located in different geographical areas, and each educational manager is associated with one of the colleges. Consequently, students’ workplaces are healthcare institutions in various municipalities, each with different policies. For instance, there may be variations in recruitment and support for pupils during their internships. The interviews specifically explore the democracy-related activities initiated and the understanding of the educational task as outlined in the law.

In step four, a group of teachers was followed in 2023 based on action research following the thoughts and processes that will now be introduced. Eight teachers, a manager, and the researcher held four meetings in the spring. Reflective dialogues were inspired by professional learning communities, and the teachers developed teaching with democracy using an inductive approach. Field notes were taken during the dialogues. Four teachers were observed as they tried out the chosen approach to democracy in classrooms. This observation was conducted from a complete observer position based on the relation to students, but it was more likely an

observer-as-participant position based on the relation to the teachers. The teachers were interviewed immediately after the observations, and field notes and brief transcriptions were made.

In autumn 2023, the group of teachers changed slightly, with one new teacher and three teachers leaving the group due to other obligations at the college. Four meetings were planned to use a more deductive approach. The participants created logbooks twice, and at the end of the action research, four teachers and the manager were interviewed. These interviews lasted 30 to 45 minutes and were transcribed. All this data was collected during the basic course in Danish VET. As a final activity, the college manager and teachers collaborated to create a paper that could be used, for example, in teacher education (Duch, 2023b).

3 Results

The results are presented in three sections, each offering different perspectives: 1) Students, 2) College managers and representatives from the training 3) Teachers'.

The last and third section, focusing on teachers, provides the most detailed insights in this paper (to be published in Danish (Duch, accepted). However, the other two sections also highlight important background information related to the topic, which has been published in Danish (Duch & Kidde, 2023; Duch, 2023a).

3.1 Students' perspectives

The interviews with the 12 students reveal a diversity of experiences and levels of participation in democracy. Four of them are highly active in the representative democracy at the VET college and also have experiences from primary school. Those and two other students express their opinions in college and other contexts, expecting to continue this engagement in their working lives. Three additional pupils exhibit less courage in expressing their opinions but still participate in democratic activities.

However, the results highlight the need to pay special attention to three students who have minimal experience with participation in representative democracy within educational settings. These students perceive schools and colleges as authorities that know better than them, leading them to refrain from interfering with decisions made by educational institutions or teachers. Some even explicitly state that they find it wise to remain quiet about their viewpoints.

Based on these findings (Duch & Kidde, 2023), there appears to be a necessity to address these specific students, and the study continues by examining practices at colleges and during training.

3.2 Perspectives from colleges and training in the healthcare sector

The results from interviews with college managers and representatives from the training can be summarized in four themes (Duch, 2023a). The first theme is that the understanding of democracy is quite broad and explained using different notions such as 'general education (*Bildung*),' 'sustainability,' a room for negotiation full of conflicts,' 'inclusion,' 'reflection,' 'respect,' and 'value'.

The second theme is teaching democracy. One college manager emphasized the importance of integrating democracy more into the syllabus, while another focused on teachers' competences. During interviews with training participants, interest arose regarding how democracy was "integrated into subjects" and discussions. This involvement extended to engaging with unions in meetings with students and preparing students for working life by demonstrating how political decisions are made and influencing them at the local level and in daily practice.

The third theme is teaching with democracy, which manifests in various ways within colleges. These include projects, morning songs, classroom management, teacher competencies, and involving pupils in activities. From the training perspective, students' participation in

meetings and dialogues among colleagues is crucial. Additionally, discussing negative stories in the media about the healthcare system and emphasizing respectful treatment of elderly individuals are considered important aspects of teaching democracy.

The fourth theme is the diversity of students. Both college managers and training representatives recognize that students from different cultures, ethnicities, and languages may interpret democracy differently. Additionally, students' varied work experiences and well-being levels impact the need for a focus on democracy, while also presenting challenges.

In summary, the results highlight diversity in defining and working with democracy. From my interpretation, this diversity must influence the double perspective and teachers' pedagogical choices. Furthermore, there is a need to emphasize how teachers practice democracy in their pedagogy, aligning with the intentions outlined in the law.

3.3 Teachers' perspectives: reasoning and pedagogical practices

The results from the action research are presented as follows: Firstly, teachers' understanding of democracy; secondly, teachers' choices for learning and working patterns; and thirdly, their recontextualization of democracy (Duch, accepted). For all teachers, it was unknown that democracy was mentioned in the law and that they had obligations related to it. However, for teachers with a teacher education in general subjects (Bachelor of Education), this concept was well-known and integrated into primary school teaching. In contrast, for teachers with other educational backgrounds from health care courses, democracy was completely new and not a mandatory part of teacher training for vocational education (Diploma of Education in Vocational Education and Training). Teachers understood democracy as a part of general education, inclusion, or active participation in college and internship settings.

This diversity called for a language to discuss democracy. Based on Solhaug (2021), liberal democracy is primarily centred around debates related to voting. While this understanding was evident in the logbooks of two teachers, other parts of the data showed that those same teachers leaned more toward participatory democracy. Participatory democracy is defined as recognizing the value of discussions related to community responsibility. This perspective dominated the empirical data, except for one teacher who advocated for democratic dialogue as a means of emancipation and agreement. Interestingly, this teacher was politically active based on this perspective, while the different positions did not appear well-known to the other teachers at the beginning of the research.

Looking at the learning and working patterns (Illeris, 2006), teachers made a close connection between the content of their teaching and the roles of the teacher, students, and democracy. Some did so with a high degree of control in the classroom, creating activities that provided experiences with democracy. Other examples showed how students were situated in positions and given exercises where they had to make decisions. In most cases, teachers connected the college content with practice in working life or internships. While some explicitly linked this to democracy, others saw it as an implied agenda.

How teachers understand and recontextualize (Bernstein, 2000) democracy to pedagogical practice in VET is explored through the interviews. It's important to note that in Denmark, there are no policy recommendations in this area, and this research primarily relies on teachers' elaborations and thoughts during meetings and interviews. Some teachers refer to the general perspectives in VET as youth education, and they find democracy related to the internship where the students must become aware of the voices of clients, children, parents, or patients. For some teachers, such a general perspective is the main obligation since they teach students at the beginning of their course in VET. Another viewpoint is that the vocational perspective should take precedence in VET, connecting classroom learning to internship experiences. Additionally, some teachers link democracy to notions such as transfer, general education and power as a professional. For those, the general perspective seems more in the front. The idea of giving

students a voice and teaching them to engage actively is emphasized by some educators, bridging both the general and vocational perspectives.

Summing up, the teachers' recontextualization of democracy differs, referring to general perspectives in youth education and vocational perspectives. The understanding of democracy also varies. However, participatory democracy can be seen as the main position for teachers. Furthermore, democracy is explained through a variety of other pedagogical notations, and the roles of teachers and students vary, as do the choices of implicit or explicit references to democracy.

4 Conclusion and discussion

The research question asked is how the pedagogy of democracy is practiced in Vocational Education and Training (VET) based on the intentions of the law? Each of the empirical datasets contribute to the answer. The interviews with students in the initial phase of the research highlight the need for teachers to focus on democracy. Some students appear at risk of exclusion from participating in discussions at college and in their future working lives, as well as taking part in representative democracy. These students are important to consider in the pedagogy of democracy. This can be inspired of Dewey's (1916) theory. Additionally, interviews with managers and representatives from the training reveal variations in awareness and understanding of democracy. Certain groups of students receive special attention due to their backgrounds and prerequisites. Therefore, it is crucial for teachers to carefully implement democracy in their pedagogy, based on the formulations in the law of Danish VET. To do this, understanding the notion of democracy.

The action research shows that teachers were initially unaware of their obligations to teach democracy. However, they all developed and experimented with new initiatives. While teachers have varying understandings of democracy (Solhaug, 2012), the main approach can be categorized as variations of participatory democracy. There is tension between understanding the obligations related to democracy in general subjects versus vocational subjects, as well as between general perspectives (such as general education and inclusion) and vocational perspectives. The recontextualization of democracy in classrooms is primarily explained as important based on VET as a youth education combined with a vocational perspective (Bernstein, 2000). Teachers recognize a connection between these two perspectives, and the majority argue that providing students with experiences of democracy in college is essential for preparing them to participate in democracy during training and working life.

The observations reveal a variation in framing. Teachers choose different ways of introducing democracy and steering in the classroom, assigning students distinct roles and responsibilities (Illeris, 2006). This connects to teachers' approach to learning. Some educators focus on VET perspectives related to older people or children, while others emphasize the student's ability to participate and express opinions more broadly. In summary, all teachers recontextualize the formulations of democracy in the law of VET for teaching. However, since there is no official recontextualization, teachers' beliefs, positions, and subject context play a crucial role.

Although democracy has been on the agenda of Danish VET for at least two decades, it has not received much attention. This leaves teachers, trainers, and managers with limited support and inspiration to implement the intentions of the law. Additionally, democracy is not directly addressed in teachers' education for VET teachers; however, there is a tradition for this perspective in general teacher education. Recently, the Council of Europe has started addressing democracy in VET (Council of Europe Education Department, in press), which may indicate a more international interest in strengthening the focus on democracy within VET. Given the relevance of the double perspective in VET across many countries, there are reasons to research both general and vocational perspectives and how they correlate when teaching about

democracy. Different interpretations regarding the precedence and interaction of vocational and general perspectives may be important in pedagogical choices and broader discussions about VET.

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Biographical notes

Henriette Duch is an associate professor at VIA University College in Denmark. Her research area focuses on vocational teacher education and teacher qualifications in higher education. She also explores organizational perspectives and teachers' and students' perspectives in VET.

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Recognition of Prior Learning in Higher Vocational Education and Training: Framework Conditions and Recognition Practices at Professional Education Institutions in Switzerland¹

Engelage, Sonja

sonja.engelage@sfvet.swiss, Swiss Federal University for Vocational Education and Training

Baumeler, Carmen

carmen.baumeler@sfvet.swiss, Swiss Federal University for Vocational Education and Training

Salzmann, Patrizia

patrizia.salzmann@sfvet.swiss, Swiss Federal University for Vocational Education and Training

Hämmerli, Christine

christine.haemmerli@sfvet.swiss, Swiss Federal University for Vocational Education and Training

Abstract

Context: The orientation of vocational education and training (VET) towards lifelong learning and the development of procedures for recognising prior learning (so-called educational achievements) in formal VET programmes are important goals of the confederation and cantons in Switzerland. The recognition and crediting of educational achievements should facilitate social and economic integration and provide opportunities for mobility through higher qualifications. At the same time, they should lead to better utilisation of potential in the education system and thus alleviate the shortage of skilled workers. Nevertheless, educational achievements are not recognised in approximately half of the study programmes in higher VET.

Approach: We examined the recognition of prior learning in professional education institutions whose programmes are aimed at students with work experience, that is, individuals with non-formal and/or informal competencies that may be relevant for admission or credit transfer to studies. In a selected sample, we investigated the leeway allowed by institutions regarding the recognition of prior learning and why some of them allow only a small leeway, while others are dismissive despite existing possibilities. The aim of this study was to better understand the various recognition practices and justifications of professional education institutions from the perspective of organisations to better promote the recognition of prior learning.

Findings: The analysis included the concepts of boundary work and organisational logic in the interpretation of the results. The findings of this study suggest that the recognition of prior

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learning is related to the self-image of institutions and the situation of the target labour markets. In a competitive educational environment, a limited credit transfer practice can make sense from a market economy perspective in profiling an institution. On the other hand, in highly regulated occupational fields, the proactive creation of separate educational pathways addresses specific educational groups that help alleviate skill shortages when the labour market is tight.

Conclusions: If lifelong learning is to be promoted through the recognition of prior learning, educational organisations should be transparent about which further education and professional experience can be recognised and in which contexts and where the boundary is drawn. This would enable students to make informed decisions. At the same time, professional education institutions would have the opportunity to distinguish themselves by allowing diversity in their degree programmes.

Keywords

recognition of prior learning, vocational education and training, higher education, professional education institution

1 Introduction

The orientation of vocational education and training (VET) towards lifelong learning and the development of procedures for the recognition of prior learning (so-called educational achievements) in formal VET programmes are important objectives of the education policy in Switzerland. In line with the Lifelong Learning Memorandum (European Union Commission, 2002), non-formally and informally acquired competencies such as further education and work experience should also be given greater consideration. The recognition and crediting of educational achievements should facilitate social and economic integration and provide opportunities for mobility through higher qualifications. At the same time, they should lead to better utilisation of potential in the education system and thus alleviate the shortage of skilled workers. This should strengthen the competitiveness of both individuals and Switzerland as an economic area.

This study built on the results of a national study commissioned by the State Secretariat for Education, Research and Innovation (SERI), which found that in approximately half of the professional education institution (PEI) study programs examined, educational achievements already acquired were not recognised and credited (Salzmann et al., 2022). It sheds light on possible explanations at the level of educational organisations, which have to do with the self-image of educational organisations and their willingness to use the existing leeway defined by external framework conditions. The aim of this study was to better understand the different practices of recognition of prior learning (RPL) and the justifications of PEIs from the perspective of organisations to specifically promote RPL.

The first question is on the limits placed on the recognition of educational achievements at PEIs by external framework conditions such as national minimum requirements, framework curricula and regulations of access to the occupation, and how much leeway is allowed for PEIs within an occupational field to recognise competencies already acquired by students. It is initially assumed that PEIs generally recognise less when there is little leeway and recognise more when there is greater leeway. However, there are also counter-intuitive cases that deviate from this pattern, that is, those that do not recognise educational achievements even though there is room for manoeuvre or those that recognise educational achievements even though the possibilities are limited by the framework conditions. This raises the second question of what motivates PEIs to deviate from the scheme, that is, not to utilise or maximise the scope.

1.1 State of research

Along with numerous other studies, this study focused on the meso level and identified framework conditions from the perspective of educational organisations that show how to deal with the demands and educational policy goals of lifelong learning and RPL (e.g., Baumeler et al., 2023; Bohlinger & Münchhausen, 2011; Gugitscher & Schmidtke, 2018; Klingovsky & Schmid, 2018; Maurer, 2019; Salini & Salzmann, 2020; Schmid, 2023).

To answer the question of how RPL practices are justified within the existing framework conditions, the internal perspective of educational organisations is relevant if it is assumed that RPL is not simply a question of ‘good will’ (Pfeffer & Skrivanek, 2018) but follows a logic inherent to the organisation (Schweiger & Kump, 2018). Changes can only be successfully anchored in an organisation if they fit in with its organisational logic. The organisational logic acts as a cognitive ‘map’ of the organisation and provides the (mostly implicit) rules of the game or justifications, according to which members of the organisation align their behaviours in certain situations (Schweiger & Kump, 2018). Organisational logic as a collective mental model is comprised of cognitive schemes, basic assumptions, beliefs, norms, expectations, and implicit values of the organisation, which largely unconsciously influence the organisation's actions. An organisational logic is extremely difficult to capture as a whole, but according to Schweiger and Kump (2018), a set of logic elements that includes cognitive, emotional, and behavioural aspects can often be identified. These elements run through the entire organisation like a common thread. To change an organisation, it is necessary to either follow or change the rules of the organisational logic, which can only be successful if the rules are revealed and questioned, to break upcoming resistance (*ibid.*).

Damm's (2018, 2020) work is particularly relevant to the following analyses, as it examined the topic of RPL when accessing continuing academic education at universities in Germany. He focused on educational organisations and persons that are responsible for study programmes and identified four action patterns that can justify and explain the (non-)recognition of educational achievements. His key category, ‘boundary work’, is about how, from the perspective of the educational organisation, the ‘own’ (e.g. the design of the study programme and students' profile) differs from the ‘other’ (external expectations, the situation of the labour market, the anticipated shortage of skilled workers, etc.). In his four-field model, he located the programmes examined with regard to RPL practices on the axis of preservation (maintaining the status quo of a study programme) and development (openness to new developments): it is a question of who (applicants) and what (prior learning) is allowed through ‘the borders’ (Damm, 2020, p. 93) and how access to higher education is maintained or opened up in its current form. Damm (2018, 2020) showed that the legal regulations on RPL are interpreted very differently. Nevertheless, he argued in favour of not imposing procedural requirements on study programmes, as it can make sense to adjust RPL not only in different subjects but also at different points in the development of a study programme.

We distinguish between the RPL for admission and RPL as crediting for a PEI programme (Figure 1). On the one hand, RPL revolves around the question of who is admitted to a study programme. At the national level, the admission requirements are set out in the Ordinance of the Federal Department of Economic Affairs, Education and Research in the Minimum Requirements for the Recognition of PEI Programmes and Studies at Universities of Applied Sciences (MiVo-HF) and regulated in the framework curricula.

The crediting of educational achievements to the programme can lead to a shortening of the duration of study or dispensations from parts of the theoretical and/or practical training. The PEI and persons responsible for the programme decide which content and competencies are considered. Compared with the RPL for admission, the scope of the PEI is much greater in crediting non-formal educational achievements, such as work-related further training, and informal educational achievements such as work experience.

Figure 1

Forms of recognition of educational achievements at PEIs

Recognition of educational achievements upon ADMISSION	Recognition of educational achievement as CREDITING to the study programme
<ul style="list-style-type: none"> • Admission of persons who do not fulfil the regular admission requirements 	<ul style="list-style-type: none"> • Shortening the duration of studies • Dispensation from parts of the theoretical and/or practical training

1.2 Professional education institutions in Switzerland

PEIs in Switzerland are relatively new educational organisations that have repositioned themselves as tertiary-level universities after the revision of the VET Act in 2002.² In general, students have completed basic vocational training and have already worked in the occupational field for several years, which lead to a heterogeneous age structure in the programmes. The higher average age compared with that in other tertiary-level programmes indicates that a large proportion of students enter with considerable work experience and associated skills that may be relevant for RPL. The study programme at the PEI takes between two and four years and is completed as a full- or part-time programme. The aim is to acquire expert knowledge and prepare students to take on managerial roles in occupational fields.

As Switzerland has a well-developed dual VET system and more than 60% of its young people enter VET after compulsory schooling, higher-qualification vocational programmes are also in great demand. Graduates receive a federally recognised PEI diploma with the corresponding protected professional title. All study programmes must undergo a recognition procedure by the SERI (www.sbf.ch). The MiVo-HF specifies the procedure for recognition, regulates the study programmes, and defines the requirements for framework curricula and education providers. Framework curricula, which are developed by professional organisations in collaboration with the PEI and approved by the SERI, form the basis for the individual PEI study programmes and their recognition by the SERI. Among other things, they regulate the professional profile and competencies to be achieved (*ibid.*).

2 Research design

The research question was analysed through a qualitative comparative case study. First, the legal basis (VET Act and VET Ordinance, SERI list of regulated professions), the MiVo-HF, and the national framework curricula were used to analyse the external framework conditions and collect information on the occupational fields and the situation in the target labour markets that follow a PEI study programme.

Four different educational programmes were then selected from a sample of 13 interviews with programme directors, which were as contrasting as possible regarding the external framework conditions and RPL practices of educational achievements at the PEI for admission to studies and for crediting to the study programme.

The selected cases relate to the four study programmes for licenced pilots, registered nurses, business economists, and social workers. In terms of maximum variance, each case

² SR 412.10 - Federal Act of 13 December 2002, Fedlex (admin.ch)

represents a different combination of external framework conditions and RPL practices (see Table 1).

We consider the framework conditions weakly regulated if, in addition to the MiVo-HF and the framework curricula, there are hardly any legal restrictions regarding access to the PEI programme and the occupational fields or target labour markets. They are considered highly regulated if there are legal requirements that restrict access to the labour market and occupational field, such as those for occupations that are associated with a special responsibility with regard to ensuring safety aspects (e.g. in the area of transport or health).

The RPL practice at PEIs is considered strict if educational achievements are not or are hardly recognised and credited. It is considered open if PEIs enable RPL by, for example, opening up their courses to certain target groups (e.g. people with education certificates issued under the old legislation before the VET reform) or if students do not have to complete the full study programme because they already have work experience or have completed further training.

Table 1
Case selection

PEI study programme	Framework conditions		RPL practice	
	Weakly regulated	Highly regulated	strict	open
Licensed Pilots		X	x	
Registered Nurses		X		x
Social Workers	x			x
Business Economists	x		x	

2.1 Case descriptions

First, we illustrate the two cases that, under similarly highly regulated framework conditions, applied very different RPL practices for educational achievements both in terms of admission to the programme and the crediting of educational achievements to the study programme.

Licensed Pilots

Air traffic and the training of pilots in Switzerland are subject to EU directives. Only the Federal Office of Civil Aviation (FOCA) is authorised to issue pilot licences.

In addition to the MiVo-HF and framework curricula for study programmes for the PEI, the regulations of the European Union Aviation Safety Agency apply. The costs of studies are very high, and the labour market situation in aviation fluctuates.

To be admitted to the programme, students must have completed upper secondary school, have at least one year of work experience, and pass an aptitude test, which includes a personality test and a medical fitness test. They must also prove their language skills and be of a minimum age.

According to the framework curricula, the PEI decides on the crediting of competencies to the study programme. However, there is no real credit transfer procedure at the PEI. Potential students who wish to have educational achievements (usually flight hours) recognised must submit their claims via the FOCA.

Registered Nurses

Nursing professions are regulated by federal law in the Federal Health Professions Act, which aims to promote the quality of education at universities and other higher education institutions in the interests of public health. The prospects in the job market for nurses are very good

owing to the significant shortage of skilled workers in the healthcare sector (Merçay et al., 2021).

Nursing study programmes are among the most popular studies and further education courses in Switzerland. The programmes are financed by the cantons so that the PEIs are not real competitors in the education market.

According to the MiVo-HF and the Nursing Framework curricula, admission to a study programme in the field of health care is based on an upper secondary level qualification recognised in Switzerland and an aptitude test. Education providers are responsible for the admission procedure and decide on the recognition of educational achievements.

Individual educational achievements are often credited to the study programme. The programme is individualised and modular, and the admission procedure clarifies which educational achievements are credited and how.

Social Workers

The labour market for social workers is relatively relaxed, but up to a quarter of staff in social institutions work without recognised diplomas (Keller, 2018). Regulations for access to the occupational field of social work vary from canton to canton and therefore appear rather weak (cf. SBFI, 2023). There is a wide range of smaller and larger PEIs in Switzerland that offer the study programme and that are also in competition with each other.

The framework curricula stipulate that admission to a study programme is based on an aptitude assessment, whereby a pre-study internship and experience in the world of work may also be required. The framework curricula list a variety of admission options for people who do not have a relevant professional qualification or have no upper secondary-level qualification at all.

When crediting educational achievements to the study programme, the PEI uses a points grid that is intended to reflect various informal educational achievements, in addition to formal and non-formal educational achievements.

Business Economists

The occupational field of business administration is not regulated. The market decides who is employed and which qualifications are considered valuable. The labour market situation in Switzerland has been stable for years, the unemployment rate is very low by international standards (Bundesamt für Statistik, 2020), and employment has increased sharply as a result of digitalisation (State Secretariat for Economic Affairs, 2018).

In the field of business administration, there is a wide range of tertiary-level continuing education opportunities in Switzerland and thus great competition between PEIs for potential students.

The MiVo-HF and framework curricula regulate admission to the programme with a relevant professional qualification or a secondary school diploma and at least two years of work experience. Potential students can apply for reductions or dispensations in a credit transfer procedure. They are only granted if they can be formally recognised, which makes it impossible to take informal competences into account.

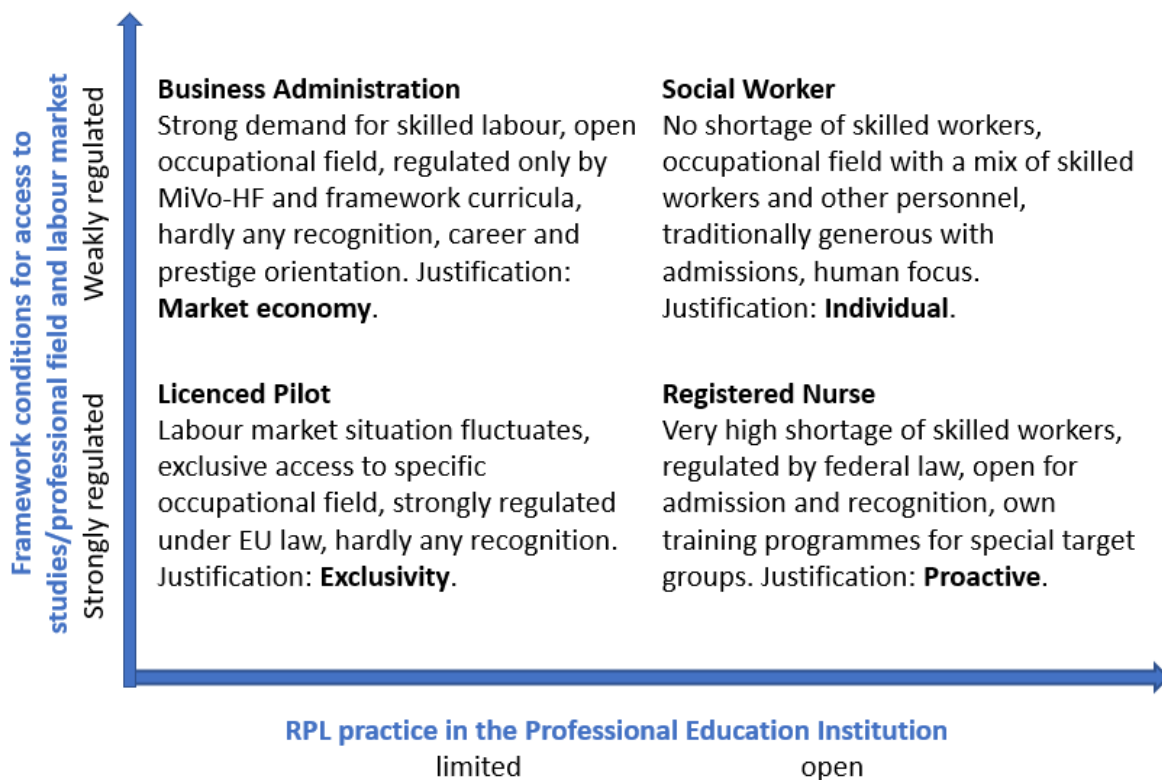
2.2 Justifications: Categorisation in the model

The framework conditions, with the regulations on the one hand and the characteristics of the study programmes and PEIs with their different crediting practices on the other hand, result in classification based on a four-field model. A distinction is made on the y -axis as to how strongly or weakly regulated the framework conditions determine how open or closed access to the labour market and occupational field is. On the x -axis, a distinction is made as to whether

the respective PEIs are rather limited or open to the recognition of educational achievements in terms of maintaining or developing their organisational logic (see Figure 2).

Figure 2

Justifications/categorisation in the four-field model



Despite the same framework conditions, RPL practices at PEIs differ considerably. In fact, there are PEIs that, as expected, refer to regulations in their restrictive attitude. One example is the PEI with a pilot study programme. In comparison with other PEIs, non-recognition is viewed here as a ‘unique selling point’. Previous experience is even considered a hindrance, as expressed in the following:

When someone who has a lot of previous experience falls back into old patterns of behaviour in stressful situations, it is okay in terms of legality, but in the end, it does not meet the requirements for the training course and the skills that we expect.
(Educational programme leader for pilots)

The *exclusivity* and pressure to succeed and the security aspect are difficult to reconcile with the idea of RPL. On the basis of this organisational logic, this leads to a rejection of non-conformist educational biographies and to a demarcation from all elements (or potential students) that supposedly make ‘failure’ of academic success more likely.

On the other hand, there are study programmes and PEIs that have found ways to provide opportunities to student groups that do not have the currently valid competence profile under similarly restrictive framework conditions. The nursing programme investigated responded to the needs of this group by creating its own study programmes that appeal to certain people with previous experience. Potential students who do not fulfil the usual criteria are therefore not excluded but channelled into their own educational programmes. In addition, the PEI has

developed a procedure to enable the most comprehensive possible assessment of previously acquired skills and competencies *sur Dossier* (i.e. on an individual basis). The aim is to offer these students opportunities to develop their careers in the healthcare sector.

These are people who already have an educational biography behind them and have decided (...) at some point in their lives to choose a new direction in life, and they also need individual support in this regard. (Educational programme leader for nurses)

Overall, the PEI uses its leeway under the given relatively strict legal framework conditions. In accordance with its organisational logic, it reacts *proactively* and with coordinated educational offers to the major shortage of skilled workers and the needs of potential students, and develops innovative procedures for RPL.

The PEI programmes in social work and business administration have in common a great deal of leeway in their framework conditions. Access to the study programme and occupational field is open, and differently trained staff can be employed. For the PEI, the target labour market is a motive for crediting educational achievements, addressing other target groups, and shortening the study time. The scope for action is used to the maximum, and informal educational achievements in the form of experience are generously recognised and credited.

An important element in organisational logic is the focus on the individual. The PEI is concerned with placing people and their *individual* experiences at the centre.

This has a long tradition in the social sector. Precisely because we clearly also have the aspiration to recognise people with their qualities, strengths and weaknesses. (...). So I don't think it's a coincidence that this is very, very pronounced in the social professions. (Educational programme leader for social workers)

The PEI with a business administration programme considers itself as an educational organisation with a long tradition and as the leading private provider of business and IT programmes in Switzerland. In contrast to the PEI in the social sector, the focus here is not on potential students but on closely observing how education providers' environments behave regarding RPL practices.

The *market economy* justifies RPL practices, with a strong focus on competition. Meanwhile, the logical element of competition is concerned with the prestige of the PEI, which can allegedly only be maintained if the competencies required in the framework curricula are trained and certified on-site in the stated quality. On the other hand, RPL practice is justified by the organisational culture, which makes restrictive crediting behaviour necessary.

Look, if you are that big, the size we are now with over a thousand students on the PEI programme, then we also have a lot of envious people. (...) At the end of the day, it's also about business. (...) You also have to be very restrictive in certain areas and say, "No, that's simply part of the meaning and spirit of the study programme," and that's why we simply not dispense in general. (Educational programme leader for business administrators)

Overall, we can infer that despite weak regulation and an open labour market, this education provider makes little use of its room for manoeuvres in RPL. Above all, it sets itself apart from other competitors and justifies its credit transfer practice with the PEI's profile on the education market and its inherent organisational logic.

3 Summary and discussion

To date, little is known about the recognition of educational achievements at the tertiary level of professional education. However, an empirical study showed that educational achievements are not recognised in approximately half of the study programmes at PEIs (Salzmann et al., 2022).

Our study describes RPL practices at higher education institutions whose study programmes are explicitly aimed at students with work experience that may be relevant for RPL in the sense of lifelong learning. The study expanded the academic debate on the topic by not focusing on the RPL processes or the analysis of individual actors, but by identifying justifications for the RPL practices of educational organisations. From the perspective of PEIs, it becomes clear how much they differentiate themselves by (not) recognising educational achievements. We pursued a model based on the findings of Damm (2018, 2020), who used the motif of ‘boundary work’ to analyse who (potential students) and what (educational achievements) are recognised and credited. The concept of organisational logic (Schweiger & Kump, 2018) also helps to better understand the different RPL practices in educational organisations and provides insights that can lead to a change in these organisations. In this respect, these two approaches complement each other perfectly. Drawing boundaries makes it possible to describe RPL practices by showing the extent to which boundaries are flexible and at what point they are insurmountable for an organisation. Organisational logic explains why organisations behave in this way and shows where to start if a change is to be brought about.

We used a selected sample to identify and illustrate various justifications in the RPL practice at PEIs. On the one hand, the sample with maximum variance allowed for illustrating typical cases that act as expected under the corresponding framework conditions (national regulations, framework curricula, regulations on access to the occupational field, and characteristics of the target labour market). On the other hand, counter-intuitive cases have shown that RPL practices can deviate under the same framework conditions.

Despite a major shortage of skilled workers in the healthcare sector, the admission requirements for study programmes and occupations are strictly regulated, with a limited scope for recognition. To ensure the occupational mobility of people with previous educational qualifications, PEIs act proactively by creating study programmes that enable them to quickly obtain subsequent qualifications. On the other hand, however, a large scope for action through, for example, a largely unregulated access to the occupational field and labour market does not automatically mean that RPL practices at PEIs are more generous. It can make sense for a PEI to apply strict criteria to set itself apart from its competition. PEIs act in a market economy manner if they succeed in maintaining the reputation of their PEI by focussing more on quality rather than quantity (business economists). The situation is similar for PEIs that only have limited room to manoeuvre because of strict regulations such as when it comes to accessing a pilot licence in aviation. They cannot make any exceptions when recognising educational achievements for admission. Although they would have this option when recognising non-formal or informal educational achievements in the study programme, they do not use it. This gives them a certain exclusivity in their study programmes. Finally, there is also a case where the use of the existing wide scope is maximised. At such PEIs, educational achievements are assessed individually and generously credited because they focus on the individual. As expected, this line of reasoning was pursued at a PEI with a social work study programme.

All PEIs function within their own organisational logic, which is also manifested in the justifications behind RPL practices. To bring about changes in educational organisations regarding RPL, it is important to understand the justifications according to which educational organisations ‘think, decide and act’ (Schweiger & Kump, 2018, p. 293). To argue with Damm (2018), no single concept of RPL exists; different RPL practices can be justified based on resources and subject content. In this respect, credit can be awarded but does not have to be.

However, this requires clarification of the self-image and organisational logic of the PEI. Only by becoming aware of their ‘mental map’ can organisations question the rules of logic, change them, and thereby bring about a different behaviour or RPL practice.

Recommendations

The framework conditions, such as regulation and demand for skilled workers/labour market, do not determine how PEIs act regarding RPL. PEIs could position and profile themselves differently within similar framework conditions. Contrary to the general opinion that change processes should follow a ‘best practice’ scheme, the concept of organisational logic shows that it is worthwhile to determine which predominantly implicit cognitive, emotional, and behavioural principles and rules organisations follow in change processes.

At the level of national VET governance, it has become apparent that the few requirements defined in the framework curricula and the MiVo-HF do not provide clear instructions for PEIs. Therefore, it would make sense to find a common language to clarify terms and concepts for RPL in PEIs. If lifelong learning is to be promoted through RPL, more transparency on the part of educational organisations would be desirable to clarify which further education and work experience can be recognised in which contexts and where the boundary is drawn. On the one hand, this would enable students to make informed choices themselves. On the other hand, PEIs would have the opportunity to distinguish their organisations precisely by allowing diversity in the study programmes.

Limitations of the study and future outlook

In this study, we used the concepts of boundary work and organisational logic to interpret the results. A systematic analysis in which the theories of boundary work (Gieryn, 1983, 1999) and organisational logics (Easterby-Smith & Lyles, 2011) are addressed in depth in the design of the survey would be desirable for further studies. This would also make it easier to link up with studies that shed light on RPL practices at the meso level, for example, from the perspective of historical institutionalism (Maurer & Spasovski, 2022).

In addition, an in-depth analysis of organisational logics at PEIs would be helpful, not only regarding the question of RPL but also in general regarding dealing with changes and developments that education organisations must cope with. In this context, it would also be interesting to determine whether tertiary VET organisations differ significantly from other higher education institutions in the tertiary A sector and, if so, the boundaries here are differentiated from each other, particularly on the axis of theory compared with practice.

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Biographical notes

Dr Sonja Engelage is a senior researcher at the Swiss Federal University for Vocational Education and Training. As an educational sociologist, she is interested in the governance of VET

and the interaction of VET actors as part of the VET partnership as a starting point and goal of analysis.

Dr Carmen Baumeler is a professor and head of the research and development division at the Swiss Federal University for Vocational Education and Training. Her research topics include governance of VET, professional education, organisational research, and recognition of prior learning.

Dr Patrizia Salzman is a professor and leads a research team at the Swiss Federal University for Vocational Education and Training. Her research interests include lifelong learning and recognition and validation of prior learning, nursing practices, and digital transformation.

Christine Hämmerli is a scientific collaborator at the Swiss Federal University for Vocational Education and Training. Her research interests are lifelong learning and recognition and validation of prior learning in basic and higher professional education and training.

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A Crisis of Trust? VET Teacher Professionalism in the Context of Standards-Based Reforms

Hautz, Hannes

hannes.hautz@uibk.ac.at, University of Innsbruck

Donovan, Christina

christina.donovan@edgehill.ac.uk, Edge Hill University

Abstract

Context: Trust is a pivotal factor in fostering teacher professionalism and innovation in teaching. However, there is a paucity of knowledge regarding teachers' experiences of being trusted within the context of education policy and the impact of current reform processes on teachers' professional self-understandings and subjectivities. To address this research gap, this study aims to gain deeper insights into the ways in which teacher professionalism in VET is shaped by policy mechanisms of trust and distrust.

Approach: The paper presents an analysis of two datasets comprising in-depth, narrative-based qualitative interviews with vocational teachers of full-time VET in Austria and England. It draws upon Luhmann's foundational work on system trust to elucidate how policy instrumentalism has fostered a culture of dis/trust in VET, considering the consequences of standards-based reforms in the lives of teachers who are subject to them.

Findings: The analysis indicates that in both contexts, the conditions for professional recognition are based on practices of documentation and subordination that narrowly define the acceptable forms of self-expression in VET institutions. As a result, a crisis of trust in the professionalism of VET teachers has emerged, which has the effect of undermining pedagogical freedom and creativity.

Conclusions: The study underscores the importance of considering the phenomenon of dis/trust in vocational education and training (VET) research and practice. Regardless of the context of the respective VET system, standards-based VET reforms have comparable effects on the everyday practice and professional self-image of teachers. These reforms create a breach of trust, which reduces the room for manoeuvre in which teachers can feel safe enough to take the pedagogical risks necessary for innovation.

Keywords

trust, vocational education and training, teacher professionalism, education policy, standards-based reform

1 Introduction

In the field of educational research, it is widely accepted that trust constitutes one of the key drivers of policy reform, teacher professionalism and innovation in teaching (e.g., van Maele et al., 2014). In a recently published collective volume by Ehren and Baxter (2021a) on global perspectives in comparative education, trust is conceptualised as one of the three building blocks of education system reform, along with accountability and capacity. The authors



argue that trust ‘underpins the nature of teachers’ work, while it also acts as a lubricant for effective collaboration and relations in a school context’ (Ehren & Baxter, 2021b, p. 11). In addition, they mention that the professionalisation of teachers and the consideration of the individual needs of the students require ‘a degree of trust in teachers’. This is also applicable to the vocational education and training (VET) sector. For example, Avis (2003, p. 320) emphasises that ‘high trust relations could set the context in which innovative practices develop’ in VET. In order to implement such trust relations, however, a ‘re-formed teacher professionalism’ would be necessary, which grants teachers more autonomy and freedom of action than in the prevailing ‘performative culture’. Likewise, O’Leary (2013, p. 711) advocates for ‘a greater degree of autonomy and trust’ towards VET teachers to enhance professional development.

This paper aims to show how trust-building and distrust-building processes are shaped by ongoing standards-based education reforms, affecting VET teacher professionalism and subjectivity. Internationally, VET reforms often focus on producing ‘work-ready’ human capital and generating economic progress (Atkins, 2017). The dominance of neoliberal logic in policy-making has implications for the way in which the value and purpose of VET are conceptualised. Increased standardisation, control, and performance management create a rather instrumentalist and regulatory environment that arguably neglects conversations about what is educationally desirable (Biesta, 2009). This may affect the professional self-understanding of teachers, whose capacity to take pedagogical risks is constrained. It raises questions about the creation and maintenance of professional trust, where embracing vulnerability is central to coping with complexity and uncertainty. So far, little is known about the ways in which current reforms (re)produce trust or distrust towards VET teachers and what impact these changes have on teachers’ professional self-understandings (Donovan, 2019). We, therefore, sought to explore VET teachers’ experiences of being trusted within educational policy frameworks by addressing the question of how current standards-based reforms create a culture of dis/trust in VET and what impact this has on teacher professionalism.

In the following section, we provide a brief overview of the conceptual ideas that inform our analysis of dis/trust in VET teacher professionalism. We then explain the study context and the methods, discuss key findings from the study, and draw a short conclusion. For a comprehensive account of the VET policy frameworks examined, including the theoretical foundations, findings, and discussion see Donovan and Hautz (2024).

2 Trust as a theoretical framework

While trust is generally regarded as a positive concept in the literature (see in contrary e.g., Skinner et al., 2014), there are various ways of looking at and understanding this very concept. Trust can be interpreted as ‘a psychological state’ (Rousseau et al., 1998, p. 395), an attitude and ‘willingness of a party to be vulnerable’ (Mayer et al., 1995, p. 712), ‘confident positive expectations regarding another’s conduct’ (Lewicki et al., 1998, p. 439) or ‘a social coordination mechanism’ (Cerna, 2014, p. 14). This paper draws on Luhmann’s (2017) seminal work on system trust and the related writings by Möllering (2006, 2013) to propose a distinct perspective for examining teacher professionalism in VET. Here, trust is understood as a social process in itself. Thus, we are not concerned with analysing trust as a relatively stable phenomenon (see for a critical discussion Rousseau et al., 1998, p. 395f.). Nor are we interested in demonstrating measurable levels of trust in relation to educational institutions or organisations. Rather, our interest lies in how and through which powerful mechanisms the education system shapes ‘the social process of trusting’ (Möllering, 2013, p. 288). This analytical focus entails a conceptual shift from ‘trust’ to ‘*trusting*’, which implies that the production of trust ‘is always unfinished and needs to be worked upon continuously’ (p. 286). In understanding trust as a

practice (as opposed to a product), we can investigate how cultural and institutional expectations for conduct shape patterns by which individuals are trusted, as well as the extent to which individuals modify their behaviour so that they are recognisable as ‘trustworthy’ within their institutions. It is this dynamic interaction between individuals within a system that allows for an examination of the ways in which teachers feel they have the capacity to be vulnerable, core to the process of building trust. Of particular interest here is how these cultural expectations for trust can be generated, maintained or fractured and eroded by standard-based policy reforms.

Luhmann (2017, p. 9) characterises trust and distrust as a process of ‘complexity reduction’ in an environment of uncertainty. Trust refers to the capacity to accept the vulnerability associated with placing confidence in others (Möllering, 2006), enabling freedom of action and tolerating ambiguity. Distrust, on the other hand, is based on ‘negative *expectations*’ (Skinner et al., 2014, p. 208) of others and aims to avoid uncertainty by setting strict boundaries for acceptable behaviour. The conditions for trust are situated at ‘symbolic thresholds’ (Kroeger, 2019, p. 119); if these are too narrowly defined, it can lead to the evolution of distrust and a ‘crisis of trust’ (Möllering, 2013, p. 299). Möllering (2013) further suggests that a crisis of identity may occur when the system which supports trust collapses. In such instances, teachers lose faith in the school management and/or the VET system as a whole. The implementation of outcome-oriented standards may potentially constrain their pedagogical autonomy and conflict with their pedagogical ethos. This is also illustrated in a study by Bottery (2003), which examines the management and mismanagement of trust in educational settings and their adverse effects on teacher identity.

In this paper, the theory of system trust is employed as a fruitful conceptual tool for exploring how educational policy creates and establishes thresholds of trust and thus sets the conditions for professional recognition within VET. This approach allows for an analysis of the ways in which standards-based reforms promote a culture of dis/trust and thereby shape teachers’ self-conceptions.

3 Research design

3.1 Study context

In two PhD-projects, the authors investigated the regulatory environment within which the relationship between education policy and teacher professional identity in VET is situated. One project based in Austria examined the organising rationalities and logics of teachers’ pedagogical values and activities at full-time VET schools from a Foucauldian perspective (Hautz, 2022; Hautz & Thoma, 2021). The study outlines how the standards-based quality assemblage seeks to organise teachers’ professional practice. The behaviour of VET teachers is shaped by a combination of subjugation through centralised requirements, monitoring and control mechanisms, and reinforced ‘self-governance’ (Boocock, 2015, p. 185) through subtle and indirect forms of governance that operate ‘at a distance’ (Miller & Rose, 1990, p. 2) involving the powers of *expertise*, *professional responsibility* and *inscription* (Hautz, 2022). This creates tensions in the subjectivation processes of VET teachers, leading to experiences of distrust and a tendency towards de-professionalisation (Hautz & Thoma, 2021). Similarly, in the English context, Donovan (2019) has explored how centralised, restrictive modes of governance ‘at a distance’ have influenced organisational cultures within post-compulsory Further Education (FE) contexts. Her paper analysing the policy context (Donovan, 2019) argued that constant reform in the English VET/FE context, coupled with the chronic underfunding that the sector has experienced over the last decade (IFS, 2018), has allowed government agencies to exert increasing control over the practices of FE organisations. This effectively constituted a strategic approach which is characterised by distrust towards FE organisations, as organisations and individual actors are enlisted towards meeting an ever-changing set of governmental objectives.

To gain further insight into the complex processes that contribute to the de/professionalisation of teachers in the VET context, we have adopted the trust perspective as a productive approach. By applying trust theory, we can obtain a unique perspective on how accountability, performativity, and governance processes affect teacher subjectivity within VET across different national contexts. In doing so, our aim is to identify how emotional mechanisms of dis/trusting contribute to the formation of professional identity within a standards-based neoliberal environment.

3.2 Methods

Methodologically, we conceptualise trust as a process of ‘becoming’ (Möllering, 2013, p. 293) and focus on the ways in which teachers’ subjectivities are influenced by policy mechanisms of dis/trust-building. We are therefore interested in teachers’ professional self-descriptions in the context of current educational reforms. To answer the research questions, a re-reading of qualitative data emerging from two projects which explored aspects of teacher professionalism in Austria and England, has been undertaken. Each of the two datasets consists of in-depth, narrative-based, semi-structured interviews with vocational teachers from full-time VET schools in Austria and a further education (FE) college in England (see in detail Donovan, 2019; Hautz, 2022). By analysing teachers’ narratives from both countries, we sought to identify similarities and differences in the processes of being and becoming a teacher to highlight tendencies that are not only unique to the respective national contexts but also to other education systems facing neoliberal reforms.

The aim of the interviews was to elicit narratives about VET teachers’ perceptions of current standards-based reform mechanisms and their implications for the processes of becoming. All interviews were structured with open-ended questions that allowed flexibility in the interview situation and space for teachers to share their personal experiences. Interviewees across the sample discussed their professional biographies, the changes they had experienced in professional demands, their professional self-conceptions, their personal views on school and teacher quality, their views on current reform measures, and their perceptions of professional trust. Each interview lasted between fifty and ninety minutes. The interviews were fully transcribed and anonymised.

The analysis of the interview data was guided by trust theory and was carried out in a systematic and interpretive process employing thematic analysis (Braun & Clarke, 2006). Through the teachers’ narratives, symbolic thresholds of trust were explored to gain an understanding of how teachers experience current reforms and how conditions of professional recognition are defined in VET. Three key thresholds for granting or withdrawing of professional trust emerged from the data: *documentation*, *subordination* and *modes of legitimate self-expression*. Based on the analysis, we hope to show how examining these issues from a trust perspective can reveal the emotional consequences of standards-based reforms in the lives of teachers who are subject to them.

4 Discussion of key findings

Key findings of the study show that, despite considerable differences between Austria and England in the organisation, structure and aims of their respective VET systems, there is a common trend towards standardisation of VET that is re-shaping the professional recognition of teachers. Recent centralised, standards-based VET policies in both countries have eroded trust in the professional autonomy of teachers, influencing their everyday practice and professional self-understanding in very similar ways. Increased accountability and control mechanisms, which symbolically replace trust, lead teachers to feel ‘restricted in their freedom’ (Hautz, 2022, p. 223) and limited in their individual creativity. By having to constantly document their activities and being subordinated to ongoing surveillance, teachers experience a

growing climate of distrust based on ‘suspiciousness and anxiety’ (Sztompka, 2019, p. 32). This has the effect of shrinking the spaces in which teachers can feel vulnerable enough to take the pedagogical risks needed to innovate. Furthermore, the narrowly defined boundaries of legitimate self-expression imposed by current VET reforms make VET teachers feel insecure about their professional identity, leading to alienation and impacting teachers’ well-being.

In both England and Austria, VET teachers are confronted with mounting *documentation* demands and performance measures, which have led to a considerable degree of bureaucratisation. This technocratic approach to implementing reforms (Hanley & Orr, 2019; Hautz & Thoma, 2021; Lloyd & Payne, 2016) engenders a sense of being dominated and constantly controlled by data. Teachers report a significant increase in administrative tasks that have the effect of overshadowing their pedagogical duties. Their work has become more about fulfilling bureaucratic requirements than achieving meaningful pedagogical outcomes. The emphasis on documentation diverts attention and resources from teaching, leading to frustration with the overemphasis on numerical data and the perception that their professional judgement is overriden by rigid standardised criteria. This, in turn, gives rise to uncertainty about their role as VET teachers. The promotion of documentation practices within VET reforms has been identified as a potential driver of a ‘regime of accountability’ (Holloway & Brass, 2018, p. 363). In the absence of genuine trust, documentation becomes a substitute where the efficient completion of paperwork is seen as a proxy for trustworthiness, even if this is detrimental to teaching quality. This approach has been perceived to have the potential to limit autonomy and reduce trust in the system. The substitution of documentation for trust can result in an emphasis on quantifiable aspects of education, which may compromise core educational values and foster suspicion and distrust (Lewicki et al., 1998).

The implementation of recent VET reforms has also intensified the supervision and control of teachers, thereby reinforcing a culture of distrust. Hierarchical supervision emphasises compliance and *subordination*, which many teachers perceive as ‘counter-productive’ (Proudfoot, 2021, p. 813). Teachers report feeling overly monitored and suspected and describe increased control by school management leading to a culture of blame and fear. This creates the impression that teachers are not trusted to do their job properly, which generates frustration and stress. Excessive control mechanisms limit pedagogical freedom, as teachers feel that their professional judgement is not respected and that they are forced to follow orders from above, which can be demotivating and conducive to a culture of distrust. A high level of trust in schools encourages collaboration and professional development, while a climate of distrust inhibits innovation and creativity (Avis, 2003). In such an environment, teachers are less inclined to take risks and expose themselves to the judgement of others (Ehren & Baxter, 2021b, p. 11). Overall, the system-wide introduction of monitoring technologies has led to the creation of a simulation of teaching practices where professionalism is measured through standardised frameworks and documentation. This can result in the individual teacher’s practice becoming irrelevant as their unique contribution is overshadowed by the need to meet performance standards.

Teachers’ *professional self-expression* is strongly influenced by the need to conform to the expectations of the system, which often requires them to subordinate their identity and professional judgment to fit into a predefined framework of trust. The interviews conducted in both countries revealed that teachers felt that their professional identity was not recognised or acknowledged by the system. Some teachers have internalised the logic of VET reform through adopting *legitimate modes of self-expression* (see in detail Donovan & Hautz, 2024), thereby aligning themselves with the attributes deemed necessary for the functioning of the organisation. Our analysis suggests that this leads to practices which deter attention away from core pedagogical priorities and privilege documentation and compliance, arguably making the ‘simulation’ of teaching of greater importance than the authentic enactment of it (Page, 2017). Other teachers emphasise that the constant pressure to fulfil documentation obligations and

continuous control mechanisms impairs their professional self-image. Such doubts about their ability to do a good job gave rise to a ‘crisis of trust’ (Möllering, 2013, p. 299) and an erosion of their professional identity. This loss of self in the participants’ understanding of their teacher role had a noticeable impact on their well-being. The data clearly demonstrate that when forms of legitimate self-expression undermine the individual’s self-image, teachers can become alienated and ultimately resigned.

5 Conclusion

This paper demonstrates that attempts to standardise VET strategy fuel the need to achieve ‘existential security’ (Sztompka, 1999) by deriving the simple from the over-complex, thereby creating tensions in the cultivation of trust. We suggest that this constitutes a ‘crisis of trust’ (Möllering, 2013) in VET teacher professionalism, as what it means to be and become a professional in VET is called into question by emerging systems of meta-governance which threaten to undermine pedagogical integrity. Despite significant differences in the structure, purpose and cultural understandings of the VET systems in England and Austria, the findings of the study demonstrate that standards-based VET reforms influence the everyday practices and professional self-understanding of teachers in a similar manner. Due to a high-stakes accountability environment, teachers are less willing to stand out, more reluctant to the risk of making mistakes, and more likely to do a standard duty. This implies the danger of de-professionalisation of VET teachers and hinders innovation and novelty in VET settings. The study, therefore, emphasises the necessity for further investigation of the phenomenon of dis/trust in future research and for its systematic consideration in VET policy and practice.

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Biographical notes

Hannes Hautz, PhD, is an assistant professor at the Department of Organization and Learning at the University of Innsbruck in Austria. His research interests focus on teacher professionalism, educational governance, and learning analytics in VET.

Dr Christina Donovan is a senior lecturer for secondary and further education at Edge Hill University. Her research interests include trust, organisational leadership and management, culture change, youth transitions and adult education.

Hunink, C. (2024). The significance of exams and certificates in vocational education and training (VET) in Costa Rica. In C. Nägele, B. Esmond, N. Kersh, & B. E. Stalder (Eds.), *Trends in vocational education and training research, vol. VII. Proceedings of the European Conference on Educational Research (ECER), Vocational Education and Training Network (VETNET)* (pp. 55–64). VETNET. <https://doi.org/10.5281/zenodo.13236693>

The Significance of Exams and Certificates in Vocational Education and Training (VET) in Costa Rica

Hunink, Claudia

claudia.hunink@uos.de, Osnabrück University

Abstract

Context: The economic progress of Latin America depends not least on the availability of an efficient pool of skilled labour. In the current discourse, dual vocational education and training (VET) is particularly seen as a panacea against structural labour market and social problems. The Costa Rican government's latest initiative to implement dual VET dates back to 2016. In light of this, a bilateral agreement on international cooperation in VET was concluded with the German government. However, it should also be noted that attempts to transfer German dual VET to other countries often fail. Therefore, this study is mainly concerned with describing the social acceptance of VET programmes, educational qualifications and their examination modalities at the upper secondary level in Costa Rica. Both exclusively school-based and dualized VET programmes will be considered. Furthermore, the significance of the respective qualifications for access to the labour market will be critically examined.

Approach: This study chose a multidimensional methodological approach, which includes desk research, document analyses, and the screening of cultural artefacts. In addition, empirical data was collected through group interviews and participant observation. The transcribed audio material was analysed using QDA software in accordance with the Grounded Theory Methodology (GTM), both deductively and inductively, following the coding paradigm.

Findings: The participant observations and group interviews with various stakeholders of the Costa Rican VET system show discontent with the current VET programmes and final exams. Employers criticise a skills mismatch. Representatives of trade unions and companies are often unfamiliar with the new dual VET programmes or have prejudices. It is also apparent that employers have little inclination to become actively involved in dual VET and examination processes. At the same time, employees of the Costa Rican Ministry of Public Education (Ministerio de Educación Pública, MEP) find it difficult to involve other stakeholders in the organisation of vocational training and examinations.

Conclusions: The social acceptance of VET is always related to the respective context and access mechanisms to the labour market. Thus, VET and such programmes and certificates appear to be the second-best choice in Costa Rica at best compared to general and tertiary education. Up to now, the development and implementation of VET programmes and the corresponding final exams have been the sole responsibility of the MEP. As part of the development and execution of the newly implemented dual modalities, the MEP is attempting to involve other stakeholders. However, it is currently unclear which stakeholders should be involved. Full participation based on the consensus principle, as is the case in Germany, for example, could change the collective perception structures regarding VET within Costa Rican society in the future. The involvement of actors from the private economy, in particular, could contribute to this to a large extent, as their function as gatekeepers puts them in a position of power. After all, they usually regulate access to gainful employment.



Keywords

vocational education training, VET, Costa Rica, certificates, social acceptance

1 Introduction

The economic progress of the Latin American region depends not least on the availability of an efficient pool of skilled labour. Along with the increasing technologization of most industries comes an increased need for engineers and technicians. Higher education and vocational schools, in particular, should therefore be supported financially and geared towards such requirements (Katz, 2023).

The postulate that the vocational education training (VET) sector should be aligned with such requirements is anything but new. The World Bank discussion paper from 1990 already recommended investing more in VET. However, this referred less to full-time school programmes - as they predominate in Latin America - as these tended to be considered too expensive and inefficient (Haddad et al., 1990). Then as now, the focus is much more on VET programmes, some of which take place in companies and therefore have a stronger connection to the world of work than full-time school programmes (Álvarez-Galván, 2015). In this regard, the transfer of dual VET modalities from Germany is, at times, the centre of interest (Gessler et al., 2019).

For Latin America, de Ibarrola (2016) states that some countries, such as Brazil and Mexico, have implemented dual VET programmes with varying degrees of success. In Costa Rica, numerous endeavours to establish such programs have been undertaken historically. The most recent initiative by the Costa Rican government to implement dual Vocational Education and Training (VET) dates back to 2016. Consequently, a bilateral agreement on international cooperation in VET was formalized with the German government in 2019 (GOVET, 2019). Following a pilot phase, dual VET programmes (Educación y Formación Técnica Profesional Dual, EFTP Dual) were increasingly integrated into the existing vocational education system (Láscares Smith & Baumann, 2020). Costa Rica currently offers VET programmes at three levels (Rommel & Vargas Méndez, 2022):

1. at upper secondary level at the vocational schools (Colegios Técnico Profesionales, CTP-MEP) of the Ministry of Public Education (Ministerio de Educación Pública, MEP);
2. at the National Institute of Apprenticeship (Instituto Nacional de Aprendizaje, INA);
3. in tertiary education at para-universities, at the National Technical University (Universidad Técnica Nacional, UTN) and at the Technological Institute of Costa Rica (Instituto Tecnológico de Costa Rica, TEC).

To date, no dual-structured VET programmes have been offered at educational institutions in the tertiary education sector.

In the current discourse, dual VET, in particular, is seen as a panacea against structural labour market and social problems (Álvarez-Galván, 2015; UNESCO, 2019). However, it should also be noted that attempts to transfer German dual vocational education training to other countries often fail. This is certainly due, among other things, to structural and institutional differences between the education system in Germany and that of the countries mentioned. However, another possible cause could also be the generally negative image that is attached to vocational-technical training programmes in these countries (Allais, 2020; Clement, 2014).

This study is mainly concerned with describing the social acceptance of VET programmes, educational qualifications and their examination modalities at the upper secondary level in Costa Rica. Both exclusively school-based and dualized vocational education and training programmes will be considered. Furthermore, the significance of the respective qualifications for

access to the labour market will be critically examined. The following research questions serve as guidance:

- What is the social significance of vocational education and training, as well as the corresponding educational qualifications and their examination modalities in Costa Rica, and what is the significance of these qualifications for accessing the labour market?
- How is the current examination system organised in Costa Rica, and what instruments are used to measure performance?
- To what extent do Costa Rican stakeholders in initial vocational education and training see a need for reform of the examination system in relation to dual training programmes?

The following section reflects on the first research question and asks about the social significance of vocational education and training in Costa Rica. This is followed by a description of the examination system in vocational education and training at the upper secondary level in Costa Rica. In the fourth section, the methodology and the survey sample are outlined, and selected results are presented and discussed. Finally, the conclusion and outlook are presented.

2 Social significances of vocational education and training in Costa Rica

In highly unequal societies of the Global South, vocational education and training and the corresponding certificates often only have limited significance and are, at best, a second-best choice compared to general education or higher education programmes (Allais, 2020; Clement, 2014). According to Allais (2020), the generally negative social connotation of VET and the resulting low symbolic value of the corresponding certificates in the countries mentioned, especially the former colonies, has deep roots in the history of this very colonialism.

The social inequalities from the colonial era continue to influence the country to this day and manifest themselves, for example, in the high level of income inequality¹ (OECD, 2023). With the aim of reducing these social inequalities, a vocational education system was implemented in Costa Rica in the 1950s, which particularly addresses vulnerable social groups (Beirute Brealy, 2018). However, the goal of social transformation has been undermined by liberalisation efforts in Latin America since the 1970s, according to Katz (2023). Allais (2020), for example, also argues that the still prevailing - and in some cases accelerating - inequality structure in the global South leads to competition for educational credentials. This competition, in turn, reinforces a societal preference for general and tertiary education certificates while at the same time stigmatising and systematically weakening more practice-oriented VET - to the detriment of economic development.

The Costa Rican economy is currently suffering from a shortage of skilled labour and high unemployment among young people. At the same time, it appears that the vocational education system is weakened. Against this background, Álvarez-Galván (2015) formulated recommendations in the 2015 OECD report on Costa Rica with the aim of strengthening both the vocational education system and the labour market. Following this publication, the Costa Rican government at the time implemented various of these recommendations. For example, a national qualifications framework was designed and implemented (Marco Nacional de Cualificaciones de la Educación y Formación Técnica Profesional de Costa Rica, MNC-EFTP-CR) and

¹ Costa Rica currently has the highest income inequality in the OECD comparison. However, it is important to note that many Latin American countries are not members of the OECD. Costa Rica, therefore, performs much better in a Latin American comparison.

various dual VET programmes were newly developed and installed alongside the full-time school-based programmes (see also Camacho Calvo, 2023; Láscarez Smith & Baumann, 2020).

The integration of dual training programmes as a further option in the existing vocational education system, which until then had mainly comprised full-time school-based programmes, as mentioned above, was a top-down implementation by the previous Costa Rican government (Camacho Calvo, 2023; Láscarez Smith & Baumann, 2020; Láscarez Smith & Schmees, 2021).

As part of the implementation of such dual training programmes in Costa Rica, the involvement of possible social partners, i.e. employers' and employees' associations, was considered from the outset (Láscarez Smith & Schmees, 2021, 2023). However, company participation in the dual training programmes remained rather modest, probably also because the implementation was mainly initiated by the state. Another major problem was being able to approach potential training companies in the first place. One reason for this is probably the strong fragmentation of the business sector. In Costa Rica in particular, in addition to formally registered companies, there are a large number of companies that can be categorised as belonging to the informal sector. There is also a dichotomy within the country between an economically strong centre (Gran Área Metropolitana, GAM) and an economically weak periphery (Arce Brenes & Villalobos Chacón, 2021; Rivera, 2022).

The organisational structures of workers are similarly heterogeneous. There are associations of solidarity movements (Asociaciones del Movimiento Solidarista), cooperative organisations, but also trade unions, for example. However, trade unions have a relatively weak position in the private economic sector. One reason for this weakness is likely to be the systematic dismissal of unionised employees by employers (Thannhäuser, 2020; Valverde Rojas, 1993). Secondly, these trade unions were never able to assert themselves in the Costa Rican private economic sector due to the strong presence of solidarity movements. These associations are made up of employers and employees. However, the control and administration of these associations lie mainly with the employers and the employees close to the employers. Ultimately, these associations promote a discourse within Costa Rican society that tends to be anti-union (Valverde Rojas, 1993).

In contrast to the trade unions in the private sector, the teachers' unions can be considered fundamentally strong. However, the attitude of two teachers' unions - the Asociación Nacional de Educadores (ANDE) and the Asociación de Profesores de Segunda Enseñanza (APSE) - was strongly opposed to the introduction of dual VET programmes. The transfer of parts of the vocational education and training programme to companies was feared to lead to large waves of teacher dismissals. It was also feared that the deployment of apprentices in companies would be less about training and more about the exploitation of students as cheap labour in companies (APSE, 2019; ANDE, 2023; Láscarez Smith & Schmees, 2023). The APSE's tough oppositional stance (towards dual VET programmes) also manifested itself in quite high-profile actions, such as demonstrations, but also in the form of caricatures or other cultural artefacts (APSE, 2019). In contrast, the Sindicato de Trabajadoras y Trabajadores de la Educación Costarricenses (SEC) was one of the supporters of dual VET from the outset (SEC, 2022).

Nevertheless, the overall context described above shows that the establishment of dual VET programmes encounters considerable difficulties. This is mainly because it requires the interaction of various stakeholders, each with different interests: companies, trade unions and the government. Depending on the occasion, reaching a consensus between all parties involved is a time-consuming process in terms of both content and time. Indeed, after the change of government, the so-called round table in 2017, at which the former government, employer and employee representatives were to be persuaded to engage in dialogue, failed (Láscarez Smith & Schmees, 2021, 2023).

Ultimately, it can also be stated that the implementation of the national qualifications framework has had little resonance on the Costa Rican labour market. The possible reasons for this are varied and complex and cannot be fully described and analysed here. Some aspects have already been briefly outlined above, such as the considerable fragmentation of the labour market (informal vs. formal sector, periphery vs. centre, etc.), whereby there are hardly any institutionalised mechanisms for closing the labour market. For example, no formal and conclusively certified vocational education or other specific certificates or evidence are required to set up a business in Costa Rica. Business start-ups in both the informal² and formal sector are possible at any time and by anyone. Nevertheless, start-ups are often micro-enterprises³ that are located in the informal sector. In addition, the problem is emerging that técnicos in the sense of skilled workers, are competing with informally qualified craftsmen (oficios) in the labour markets (Hunink & Raesfeld, 2022, 2024; Hunink et al., in press). This leads to the conclusion that investment in VET does not necessarily pay off for individuals in Costa Rica.

However, the absence of institutionalised mechanisms of labour market closure in Latin America is not synonymous with a lack of social norms and conventions that structure the labour market. Instead, all labour markets, including informal ones, are determined by social rules and norms. In this context, the enormous relevance of social contacts⁴ is emphasised for Latin America and other countries in the Global South (Pries, 2019). Vocational education and training certificates, on the other hand, play a subordinate role (Allais, 2020; Clement, 2017; Hunink & Raesfeld, 2022, 2024; Hunink et al., in press):

The demand from companies for graduates of this type of school generally remains limited because, below the level of academic qualifications, recruitment often works informally less along the lines of educational qualifications than through acquaintances. (Clement, 2017, p. 17; translation by author)

The relevance of social contacts in the labour markets of the Latin American region is also reflected in empirical studies. In this context, there is also a reference to ritual kinship (apadrinamiento) (Clement et al., 2021; Hunink & Raesfeld, 2022, 2024; Hunink et al., in press), as a kind of "symbolic extension of the family" (Hunink et al., in press) takes place in various areas of life, including work contexts. Although the empirical studies mentioned were carried out in Mexico, it is reasonable to assume that due to a similar history, the relevance of informal training and work settings and the lack of institutionalised closure mechanisms, the Costa Rican labour market is determined by equivalent patterns of behaviour (Clement et al., 2021; Hunink & Raesfeld, 2022, 2024; Hunink et al., in press).

3 Examination system in vocational education and training at upper secondary level in Costa Rica

The Ministry of Public Education (Ministerio de Educación Pública, MEP) is the authorized institution with regard to the development of final examinations. The development process of the final examinations to date is institutionalized, timed and comprises various phases. The employees of the Quality Management and Evaluation Department (Dirección de Gestión y Evaluación de la Calidad, DGEC-MEP) of the MEP are solely responsible for developing the

² Currently, 43.9% of the working population in Costa Rica is employed in the informal labour market (INEC, 2022).

³ According to Rivera (2022), the majority of newly established micro-enterprises in Costa Rica fail within the first few months of being founded.

⁴ This resource is also relevant in Germany. However, there are indications that the qualitative characteristics are different.

elements of the multiple-choice exam and the corresponding specification table. The teachers at the vocational schools do not develop or validate the test. They are only involved in the process of validating the specification table.

Currently, all final examinations for VET at the upper secondary level in Costa Rica are measured using multiple-choice tasks. This means that performance assessment is knowledge-oriented and does not primarily focus on competencies. However, according to de Ibarrola (2016), the didactic principle of competence orientation and the associated methods, such as project-based learning, have been increasingly discussed in the Latin American region for several years. As a result, innovative forms of performance assessment in examinations are also necessary in the future. A revision of performance assessment in final examinations, particularly for the dual training programs in electrical engineering and web development (MEP, 2022), is currently being planned by the MEP.

It becomes evident that the content of final exams can vary depending on the didactic principle applied. Their significance for the VET programme and the individual development options associated with them are also very diverse in different VET sub-systems within Costa Rica, but also worldwide. Despite this diversity, examination formats and, above all, VET certificates have similarities in terms of their functions. In addition to providing individual feedback to teachers and learners, they also have a signalling function for the labour market. Furthermore, certificates are often linked to access options for further education and the vocational education system (Severing, 2011). Consequently, the issuing of VET certificates is essentially aimed at regulating access to the respective labour market and ultimately bringing about its social closure. Nevertheless, the function of VET certificates - despite their theoretical coherence - depends to a large extent on their collective social acceptance.

4 Methodological approach and sample

A multidimensional methodological approach was chosen for this study. This is spread across different research methods, such as desk research in the form of extensive secondary and document analyses. This includes reports, articles, etc. In addition, cultural artefacts such as caricatures, novels, etc., are examined, as these allow an alternative approach to the respective cultural context (Hunink, 2021; Lueger, 2010; Lueger & Froschauer, 2018). In addition, empirical data is collected in the form of group interviews and participant observations. The participant observations took place in 2023 in the context of meetings of the MEP and various organisations and institutions. The group interviews were also conducted in 2023 at the vocational schools CTP San Pedro de Barva and CTP Atenas. The focus was on the apprentices, teachers and coordinators of the 1st generation of dual VET programmes. The sample consists of ten apprentices and eight teachers, coordinators and school management from CTP de Atenas in the field of electrical engineering. In addition, the eight trainees and seven teachers and coordinators from the CTP San Pedro de Barva in the field of web development were included in the group interviews. The transcribed audio material was analysed using QDA software in the research style of the Grounded Theory Methodology (GTM), both deductively and inductively. The coding paradigm is followed in the sense of open, axial and selective coding, whereby the categories of ideas of ideal examinations and stakeholder perspectives on vocational education and training are presented for reasons of space (Strauss & Corbin, 1996).

5 Presentation and discussion of the results

Discussions with MEP employees and group discussions with apprentices revealed a certain level of discontent with the current final examinations. After all, only formal knowledge is tested and no focus is placed on vocational competences. When asked what examinations in dual training programs should ideally look like, one apprentice responded as follows, with the other participants in the group interview nodding in agreement:

I think maybe it would be helpful to develop some kind of practical project [in the final exam] that incorporates the knowledge we gain in the apprenticeship, I don't know. Maybe it would help if we go beyond writing or completing exams and demonstrate our competencies [through practice]. (CTP Atenas, pos. 554-558)

The group interviews with teachers and coordinators show that the strongly knowledge-orientated final examination in the form of multiple-choice tasks contradicts their didactic understanding. Instead, they would like to see final examinations that focus more on professional competences, which is something they have in common with the MEP employees and apprentices interviewed:

For me, it would be better if something is obviously worked on, with all the steps involved in a project. This is especially the case in this field [web development], as there are many topics that can be developed for a project. So I would put it into practice, wouldn't I, that they are implementing something? Because they [the apprentices] have to analyse. They have to organise. They have to implement. (CTP San Pedro de Barva_Educadores, pos. 881-885)

Teachers also say that, in addition to such a practical examination, it would be useful to hold oral examinations in the form of a technical discussion. After all, this could ensure that the apprentices have really got to grips with the subject matter:

I1: It's like a presentation, like an oral exam where he explains.

I3: He interacts. Yes.

I5: Exactly, exactly. And you can really see, and you can really see if the student has internalised the knowledge or sought it out? (CTP San Pedro de Barva_Educadores, pos. 951-957)

The current Costa Rican teacher training programme for vocational schools does not deal specifically with the pedagogy and didactics of VET (Rommel & Vargas Méndez, 2022). Nevertheless, the interviewed teachers describe the ideal examination based on the didactic principle of competence orientation. This is probably due to the fact that the majority of the teachers worked in the private sector before working at school, which is why they are familiar with the corresponding organisational logic.

Employers notice a discrepancy between the formal knowledge acquired in educational institutions and the actual competence requirements in companies (skills mismatch) with regard to full-time school VET programmes. In addition, the general attitude towards the técnico IV⁵ vocational education and training certificates seems to be one of scepticism, which manifests itself in a widespread and dismissive statement about it: intermediate technician, or half technician.

The participant observation at various sessions with representatives of trade unions and the corporate sector revealed that few of those present were aware of the MEP's dual training programmes. This could be due to the fact that these programmes are relatively new. In addition, there are still prejudices against the dual VET programmes on the part of some trade union representatives. Overall, however, it also became clear that it is not part of the fundamental

⁵ Before the implementation of the National Qualifications Framework (Marco Nacional de Cualificaciones de la Educación y Formación Técnica Profesional de Costa Rica, MNC-EFTP-CR), the qualification was called técnico medio.

understanding of employers to be actively involved in VET or to participate in the designing of examinations. At the same time, some ministry employees have difficulties involving other stakeholders in the organisation of vocational education and training and the examination system. This could be due to the fact that the involvement of other stakeholders contradicts the common practice of centralised control of examination development and execution. Another reason could be that there are few links with the business sector in full-time school VET programmes. This could increase the barrier to collaboration in dual programmes. In addition, the fragmentation of the business sector makes it more difficult to involve further companies in dual VET.

6 Conclusion and outlook

The social acceptance of VET is always related to the respective context and access mechanisms to the labour market. Thus, VET and such programmes and certificates appear to be the second-best choice in Costa Rica at best compared to general and tertiary education. Stakeholders, particularly employers, express dissatisfaction with the vocational education and training that has only been taught in vocational schools to date. They see a skills mismatch between the qualifications taught at school and the competences required in the workplace. As a result, the qualifications that have been common up to now are not considered hard currency in the labour market. They seem not to amortise, neither for employers nor for qualified technicians. This is mainly because access to gainful employment in Costa Rica is more likely to be achieved through social contacts than through formally acquired professional qualifications. Apart from the content and competencies imparted, VET certificates are also legitimised within a society through social attribution.

Up to now, the development and implementation of VET programmes and the corresponding final exams in Costa Rica have been the sole responsibility of the MEP. As part of the development and execution of the newly implemented dual training programmes, the MEP is attempting to involve other stakeholders. However, it is currently unclear which stakeholders should be involved and to what extent. Full participation based on the consensus principle, as is the case in Germany, for example, could change the collective perception structures within Costa Rican society in the future. The involvement of actors from the private economy, in particular, could contribute to this to a large extent, as their function as gatekeepers puts them in a position of power. After all, they usually regulate access to gainful employment (Struck, 2001).

Such participation could specifically achieve collective acceptance and an appropriate exchange value of VET certificates in the Costa Rican labour market. This consideration should be investigated in a long-term study.

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Biographical notes

Claudia Hunink, a research associate at the University of Osnabrück, specializes in international comparative TVET research and youth transitions. She's currently involved in the CoRiCert project, supported by Germany's Ministry of Education and Science, focused on vocational training in Costa Rica.

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Transversal Competencies, General Education and Vocational Culture. A Cultural Studies Perspective, Understanding Critical Thinking and Problem-Solving

Kraus, Katrin

katrin.kraus@ife.uzh.ch, University of Zurich

Freidorfer, Lena

lena.freidorfer@ife.uzh.ch, University of Zurich

Abstract

Context: Since the beginning of the transformation of the industrial society in the last third of the 20th century, the requirements for the workforce have been reconsidered, especially in the early industrialized countries. Against this political background, giving transversal competencies, in general, a rising importance, this paper presents findings about the current understanding of transversal competencies in different domains of working life in a country with a dual vocational and training (VET) system. It analyses the intricate nature of transversal competencies in the wake of cultural studies theory applying the concept of vocational culture. This discussion is also related to the schism between general and vocational education dating back to the 19th century and to the concept of vocation (*Beruf*), which could be understood as a response to this schism in the German-language theory of VET. Therefore, in the conclusion of this paper, the question will be discussed: What does this mean for contemporary VET theory?

Approach: In our study, we sought to illuminate the understanding and importance of transversal competencies in two service industry sectors: the hotel business and IT services. We conducted 24 interviews with trainers in these companies to answer the following research questions: How do they interpret the transversal competencies of critical thinking and problem-solving? How do they view the necessity of these competencies for apprentices to become skilled workers in their respective fields? Moreover, how do they encourage apprentices to develop their critical thinking and problem-solving skills?

Findings: Our study revealed that transversal competencies are multifaceted. They are both generic and specific to the occupation in which they are required and applied, and they are deeply rooted in the vocational culture of the respective occupational field. This suggests that a comprehensive understanding of these competencies is crucial for VET theory.

Conclusions: VET theory must reflect the intricate nature of transversal competencies, which are simultaneously generic and specific, and the relevance of vocational culture in understanding work requirements and the question of how to address them. The latter can even be related to the schism between general and vocational education dating back to the 19th century and to the concept of vocation (*Beruf*), which could be understood as a response to this schism. The approach of cultural studies provides a broader theoretical framework for this discussion.

Keywords

transversal competencies, occupation / *Beruf*, vocational cultures, philosophy of vocational education and training, *Bildung*



1 Introduction

Since the beginning of the transformation of the industrial society in the last third of the 20th century, the requirements for the workforce have been reconsidered, especially in the early industrialized countries. In this ongoing transformation, the economic rationale of the 19th and 20th-century national industries has been replaced by the rationale of a digitalized and global service economy developing in the 21st century. In the recent political discourse in these countries and related transnational organizations, transversal competencies such as critical thinking (CT) or problem-solving (PS) have been promoted as 21st-century skills that are increasingly important in the post-industrialized world of work across different jobs (Cedefop, 2023; OECD, 2010, 2019; UNESCO, 2022).

Against this political background, giving transversal competencies, in general, a rising importance, this paper presents findings about the current understanding of transversal competencies in different domains of working life in a country with a dual vocational and training (VET) system. It analyses the intricate nature of transversal competencies in the wake of cultural studies theory applying the concept of vocational culture. This discussion is also related to the schism between general and vocational education dating back to the 19th century and to the concept of vocation (*Beruf*), which could be understood as a response to this schism in the German-language theory of VET. Therefore, in the conclusion of this paper, the question will be discussed: What does this mean for contemporary VET theory?

2 Context

In countries with a dual VET system, such as Germany, Austria, or Switzerland (Pilz, 2016), apprentices are trained in a 3- or 4-year apprenticeship scheme to become skilled workers in specialized occupations. The state regulates these occupations in cooperation with associations from the world of work (Bürigi & Gonon, 2021). Occupations in dual systems conceptually connect general education and specialized vocational competencies (Billett, 2011). The apprenticeship scheme combines learning at vocational schools and in a company where a vocational trainer tutors them. These vocational trainers are usually trained in the same occupation and have worked in this occupation for several years. They have a short-term qualification for tutoring apprentices and do it as an additional task within their job. The companies are not obliged to take on apprentices. In Switzerland, over 85% of all apprentices work and learn in small and medium-sized companies, and they mainly recruit their apprentices regionally. Considering the proclaimed transversal nature of transversal competencies, it is particularly interesting how these competencies and their relevance are seen from the perspective of vocational trainers who tutor apprentices to become skilled workers. What do they understand by transversal competencies such as CT and PS? Do they think the future workforce in their vocational domain needs these competencies, and if so, how do they help apprentices acquire them at the workplace? What role do different domains play in how transversal competencies are understood?

These questions are addressed in the following paper, which analyzes findings about transversal competencies, mainly CT and PS, in two domains from a research project conducted in the service sector in Switzerland. It became evident that, on the one hand, there are overarching similarities in the understanding of transversal competencies in these two domains. On the other hand, the domains show apparent differences in understanding CT and PS. This somehow contradicts the concept of transversal competencies, which is precisely based on the assumption of its overarching meaning and relevance for different or even all occupational domains. According to our study, transversal competencies are simultaneously generic and specific. That is what we call the intricate nature of transversal competencies. This intricate nature of transversal competencies is analyzed through the lens of culture studies, which helps to understand the cultural embeddedness of (changing) work requirements such as transversal competencies.

Furthermore, it is connected to the debate in VET theory about the relationship between vocational and general education and the value of vocational education (Billett et al., 2022; Kraus, 2009).

3 Theoretical framework

At the beginning of this section, the perspective of cultural studies is briefly introduced (3.1). This is followed by a discussion of related concepts in VET, such as vocational culture and vocational identity (3.2).

3.1 The perspective of cultural studies

This paper interprets the domain-specific understanding of generic competencies using a cultural studies approach (During, 2010). Initiated through the work of Stuart Hall (Hall, 1980), cultural studies brought a renewed understanding of culture into social science. It distinguishes itself from a normative (and bourgeoisie) understanding of culture as a high culture that engages with specific art forms such as literature, music, theatre, etc. In contrast, the cultural studies theory's concept of culture analyses ordinary people's daily lives as an expression of culture.

The core element of this approach is a concept of culture that emphasizes the importance of socially shared practices linked to shared forms of meaning and mutual expectations in action. From this perspective, culturally embedded social practices are seen as highly interwoven with the routines in working life, shared values, and people's experiences. Cultural studies also look for context-specific explanations for different practices and meanings in culturally shared ideas. The respective practices and their relation to the shared ideas are the subject of the analysis. Therefore, the difference in understanding CT and PS can be interpreted as an expression of the different vocational cultures in these two occupational fields, meaning that they are related to typical and historically developed attribution of meaning, shared values, and world views, the shared way of sense-making, and established practices.

3.2 Training cultures and vocational identity

Two concepts from VET theory related to this approach are instructive for a deeper understanding of the differences concerning transversal competencies: training cultures and vocational identity.

The concept of *training cultures* is primarily known from international comparative VET research (Brown & Evans, 1994; Pilz, 2012; Pilz et al., 2023). It shows the cultural embeddedness of training developed within a specific socio-historical context (Clarke et al., 2021; Deissinger & Gonon, 2021). Training cultures emphasize that the established training systems are also culturally anchored in the societies that have produced them and which, in turn, have been shaping them. It is used similarly at the company level to emphasize the close link between corporate culture and training activities (Polo et al., 2018). Whereas training cultures highlight the importance of socio-cultural context, *vocational identity* reveals the relationship between socio-cultural contexts and identity formation (Ferm & Gustavsson, 2021; Pleasant, 2019). Vocational identity describes how a person develops an (emotional) attachment to their respective occupation, an essential aspect of personal development and identity (Chan, 2019; Duemmler & Caprani, 2017; Klotz et al., 2014). In essence, a vocational identity develops in the interaction and cooperation relationships during the respective work with colleagues and customers or clients.

Both concepts emphasize how the world's perception is shaped by the integration of (individual or collective) actors in a specific cultural context with the associated social practices. Consequently, a field-specific understanding of generic competencies can also be seen as an expression of different vocational cultures and social practices in these fields. The article

discusses how this perspective helps to understand the differences in the understanding of generic competencies between IT and the hotel industry and their relevance for vocational education and training.

3.3 *Beruf* as a combination of technical competencies and *Bildung*

Beruf is the core concept of the German-speaking VET theory and is also used as a loanword in other languages (Clarke & Winch, 2006). It was developed in the early 20th century in the context of the rise and flourishing of national industries (Deissinger & Gonon, 2021). At this time, the neo-humanistic theory of *Bildung* devalued education oriented towards a specific purpose, whether for society's or work's requirements. In this view, vocational education was of less value than general education, and a schism between general and specific education has been established, reducing the latter to the impartment of technical competencies. Against this perception, the VET theory developed the concept of *Beruf* as a mélange of training for acquiring technical competencies for one specific occupation and *Bildung* in the sense of general education, personal development, and civic education. Furthermore, authors such as Georg Kerstensteiner stated that working is a way to achieve general education and social cohesion (Gonon, 2009). They integrated all these aspects into the concept of *Beruf*, which has been established since then as a crucial cultural feature for countries with a dual VET system. *Beruf* conceptualizes a balance between general and specific education and institutionally links the education system and the labor market. Integrating general education and the qualification for the labor market with the concept of *Beruf* is a cornerstone of the “vocational order” (Kraus, 2008) of countries with a dual VET system.

The debate about transversal competencies could be linked to this relationship between education and technical education. It seeks to highlight the general aspect of occupational-specific competencies. The devaluation of technical competencies is currently driven not by education philosophy but by the ever-faster pace of the development of knowledge and specific skills and, more recently, by the potential replacement of technical requirements by digital AI solutions. However, as in former times, finding a conceptual balance between the general and the specific in vocational education seems necessary.

4 Empirical approach: researching transversal competencies

Concepts such as “transversal competencies” are based on the assumption that they have an overarching character and do not apply to only one occupational domain (Mulder & Winton, 2017; Ziegler, 2021). Nevertheless, we identified occupation-specific differences in understanding transversal competencies in a research project on this topic in the service sector (Freidorfer & Kraus, 2023; Freidorfer-Kabashi & Gonon, 2022). Based on the increasing importance of so-called transversal competencies in vocational education and training, CT and PS in particular, we investigated in this project the question of what importance trainers in companies attach to these transversal competencies, how they understand them, and how they deal with them in instructing and supervising their apprentices. These questions were analyzed in two occupational fields similar in their service character, one of which is more of a person-oriented service (hotel business) and the other more of a technology-oriented service (IT service).

4.1 Methods

The study, the results of which form the basis for the thesis on professional culture discussed here, was conducted on generic competencies in the two fields, mentioned above, in Switzerland. It was carried out using document analyses and interviews. A content analysis of the respective occupations' curricula was carried out as part of the document analysis. Where available, internal training plans from companies were also included in the analysis. From 2020

to 2022, 24 guideline-based interviews were conducted with instructors responsible for vocational training in hotels and IT companies. During the interviews, the in-company vocational trainers were, among other aspects, asked about the following topics: understanding of CT and PS and possible links between these two generic competencies and their procedures of “teaching” CT and PS during in-company training. The interviews were transcribed and subjected to a qualitative content analysis with an inductive-deductive procedure of building the categories (Mayring, 2021).

4.2 Findings comparing CT and PS in the hotel business and the IT sector¹

Importance of CT and PS. In summary, the study results show that CT and PS are regarded as essential but not new competencies in the hotel business and the IT sector. However, there has been an increase in recognition of their importance in recent years due to changes in the world of work, which the vocational trainers in the hotel business and the IT sector are aware of. In the hotel business, CT and PS are described as essential parts of their service-oriented work, especially enabling them to respond to guests' concerns. In the IT sector, PS, in particular, is described as an omnipresent aspect of day-to-day operations or even as an integral part of the job description. In addition, in the hotel business, CT and PS are regarded as competencies that represent a vital prerequisite for constant vocational development and as necessary for gaining independence after completing the apprenticeship.

Understanding of CT. Comparing both occupational fields, there are overarching and divergent interpretations of CT and PS. Vocational trainers have a differentiated and well-founded understanding of CT and PS in both fields. Their understanding parallels the definitions and understandings of CT and PS used in academic publications (Jahn, 2012; Siegel, 2017). In both occupational fields, the focus is on self-reflection and self-criticism (e.g., critical reflections on work processes) and less on enabling apprentices to participate critically in social life (Dewey, 1910; Jahn & Cursio, 2021). CT is recognized in both fields as analyzing and questioning the information presented and established routines. Interestingly, negative aspects of CT are also mentioned in both fields (e.g., expressions of dissatisfaction by particularly critical guests). In the hotel business, CT is strongly linked to guest satisfaction, i.e., the relationship between the employee and the guest. In the IT sector, on the other hand, CT is presented as an essential component of cooperative processes (e.g., exchanging information or joint considerations in the team), i.e., it is located collaboratively in the working process. In contrast, routine-based action is perceived as constraining CT and hindering CT.

Understanding of PS. Significant differences are evident in the definition of PS. One of the few similarities is that PS is understood as coping with challenging situations and includes future-oriented thinking, e.g., improving processes or avoiding follow-up problems. In the hotel business, PS is predominantly associated with guest complaints and the ability to take the guests' perspectives and thus respond to their needs. Accordingly, PS has negative connotations and is associated with unpleasant situations, avoidable mistakes, or even unpleasant obligations. PS is also portrayed as something that can be postponed or avoided. In the IT sector, on the other hand, the focus is on finding the causes of problematic situations in detail, tackling them sustainably, and not postponing them. PS is described as a systematic sequence of individual action steps and an integral part of working in IT services. PS represents both a transversal and a core competency in the IT sector.

Procedures and Strategies in the Promotion of CT and PS. In contrast to the understanding of CT and PS, there are numerous similarities in the approaches to promoting these competencies in both occupational areas. On the one hand, they relate to internal processes and company

¹ For a detailed elaboration of the results summarized here based on the data see (Freidorfer & Kraus, 2023).

culture. Here, prerequisites for successfully promoting both competencies rather than specific procedures are mentioned. For example, tolerance for mistakes and a feedback culture, transparency in company structures, and increased exchanges between apprentices are mentioned. On the other hand, promoting CT and PS is also related to apprentices' personal development and work ethic. The hotel and IT sectors also emphasize promoting apprentices' independence and self-reflection. Furthermore, they relate to problem analysis and understanding. Vocational trainers attach importance to developing an understanding of problems and their analysis and an understanding of apprentices' development of different problem-solving processes. They are also taught to assess when external help should be called to solve a problem.

There are minor differences in the approaches to support between both fields. In the hotel business, for example, implementing project weeks, training around guest complaints (which represent a strong focus), or promoting adherence to routines (e.g., avoiding mistakes as far as possible) are mentioned. In IT, on the other hand, organizing stays abroad, establishing problem-solving procedures, and coaching processes are cited.

Summary. The importance of CT and PS has been recognized in both occupational fields, and there is a differentiated understanding of both competencies. However, both fields differ in significant aspects in their understanding of CT and PS. First, there is a difference in whether the use of these competencies is located in a collegial relationship between the employees (IT) or the professional relationship between the employee and a customer (hotel business). Furthermore, both fields differ regarding PS being seen as part of the core technical competencies required in the field (IT) or as something that is only necessary if something went wrong and in this sense avoidable (hotel business). Both fields are very similar in relating both concepts to the company's culture and share their basic approach that is primarily concerned with analyzing (e.g., problems), elaborating (e.g., different problem-solving processes), and applying (e.g., problem-solving procedures). However, there are differences between the two fields in terms of the specific measures to promote both competencies.

5 Discussion: the intricate nature of transversal competencies

5.1 Transversal competencies as a facet of vocational cultures

Culture studies put culture as the expression of shared values, norms, and practices. Following this understanding of culture, the different interpretations of CT and PS can be understood as an aspect of different vocational cultures in the two fields studied.

An occupation-specific understanding of generic competencies expresses one facet of vocational culture and its specifics, such as norms, values, behaviors, ways of working together, or communication patterns. The occupation-specific understanding of cross-domain competencies, such as CT and PS, by definition, reflects aspects of vocational culture in the respective occupational fields. Vocational cultures are linked to social practices in these occupational fields and are incorporated into the vocational identity that members of an occupation develop and share. Therefore, vocational cultures are highly relevant for vocational learning. They help to understand how training cultures and vocational identity are interlinked. Transversal competencies are not limited to one occupational domain. Nevertheless, their understanding is colored by the occupational culture mirroring the tasks in this specific occupation, the values, and the crucial social relationships, hierarchical structures, and communication styles established in this field. It seems that there is also a relation to the gendered aspect of vocational culture and the self-understanding of occupation – caring for other people and trying to make them feel good in avoiding problems and taking on their perspective is much more related to the traditional role of women than the heroic act of solving problems for others which is more related to a traditional male role.

5.2 Searching the generic: from key qualifications to transversal competencies

The debate about transversal competencies is linked to the former discussion about *Schlüsselqualifikationen* (key qualifications) (Mertens, 1974) which was already brought into debate fifty years ago. The concept of *Schlüsselqualifikationen* was developed at the beginning of the transformation of European industrial societies in the last third of the 20th century. It aimed in a similar way to conceptualize generic competencies as being relevant in all occupational fields. It has been very influential in the German-language debate about changes in work requirements and the search for answers on how workers could best prepare for a faster-changing world of work and the European agenda (Kämäräinen et al., 2002). It was aiming to overcome the shortcomings of labor market forecasts and thereby of VET in trying to meet future labor market needs. Mertens (1974) argued that labor market forecasts “tended to project existing patterns of employment into the future, failing to take into account such factors as job substitution, mobility, and the renewal of competence bases and qualifications.” (Kämäräinen et al., 2002, p. 25). He emphasized that the VET system needs to become more permeable to meet future labor market needs and better prepare workers for the future of work.

Like the current debate about transversal competencies, Mertens addressed the non-specific elements that link all occupations to the general requirements of work so that workers could acquire these attributes of capacities to be prepared for the world of work – today and tomorrow. In the research following the debate about *Schlüsselqualifikationen*, it became evident that they are also often domain-specific and that there is no such thing as one master key for all occupations (Bahl, 2009; Seeber & Wittmann, 2017; Wittmann, 2003). Key qualifications cannot be taught abstractly; they must be linked to specific tasks to develop their full potential (Reetz, 1999).

Understanding different interpretations of transversal competencies in different occupational fields helps understand this phenomenon of transversal competencies being domain-specific simultaneously. This conceptual tension within the concept of transversal competencies does not reject the search for overarching and unifying elements across the various occupations. Instead, it shows that such overarching and, thus, necessarily abstract concepts always relate to the corresponding cultural contexts in which they are realized concretely. Similar to the approach of intercultural communication, it is therefore of central importance in research and, above all, in VET theory, to repeatedly trace the culturally shaped understandings of terms and concepts. In vocational education, these concepts are always linked to aspects such as values, ethical ideas about the value of work, perceptions of good work, and the relationship between the individual and work, which must be taken up in international theory development. In this way, VET theory can be further developed, reconstructing vocational cultures and their embeddedness in specific cultural contexts of work and education. Yet, discussions on this topic can enhance understanding general principles in the relationship between education and work.

5.3 Combining the general and the specific

CT and PS competencies are seen as relevant in the context of work, and they are discussed with a broader meaning, e.g., being part of the UNESCO “life skills” (Singh, 2003). Their meaning is not only limited to the world of work but also includes the abilities of people living a good life. Here, a link could be set to the debate in educational theory about the relationship and balance between general and technical education, that is – at least in the German-speaking debate but also a broader context (Billett et al., 2022) – an important reference for VET. Along this line, it has also been critically discussed how far VET is “real education” in the sense of *Bildung* or only a kind of “qualification on demand” fulfilling labor market needs. This theoretical reflection is intricately intertwined with the Western dualistic differentiation between thinking and acting, in which thinking is described as having a higher status and value than work (e.g., Zoellner, 2020). With the concept of *Beruf*, the German-speaking VET theory tried to overcome

this dualistic view, arguing that *Bildung*, as a personal development, needs to integrate work and work experience as a way to relate to the outer world. Here, work is seen as a way to engage with the world and develop further as a person. *Beruf* encompasses technical competencies and interaction skills and has an ethical and emotional component with the person related to their occupation. With the rise of transversal competencies, this traditional debate is recalled. What relevance has work for human beings, and how can education relate to this?

6 Conclusion: What does the intricate nature of transversal competencies mean for contemporary VET theory?

The relationship between general education and specific competencies seems crucial for the future debate on VET theory. To underpin this discussion, we must also deepen our understanding of the relationship between work and education because work is an important aspect of a person's life and identity. Further developing the theoretical debate about the relationship between general education and specific competencies helps to strengthen human agency. It raises the question of what role vocational education can play in this. In this context, we can draw on concepts dealing with the relationship between work and education, such as *Beruf*, key qualifications, transversal competencies, or competence. These concepts have been developed in different cultural contexts, bringing different values and related practices to the debate. Work-related education is oriented toward work and, therefore, not identical to general education. However, there are theoretical perspectives that relate specific work-related education to general education. Doing this, they attempt to combine the idea of personal development with the aim of getting prepared for work demands. Furthermore, the competence to build conditions for decent work is important, especially given the current transformation of industrial societies and globalized economies. The intricate nature of transversal competencies reminds us that there is a need and a long tradition in VET theory to fill the space between general education and specific training.

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Biographical notes

Dr Katrin Kraus is a professor of Vocational and Adult Education at the University of Zurich. She researches and publishes on the philosophy of VET, socio-material spaces of education and learning, social practices of adult education, and educational governance.

Dr Lena Freidorfer is a research associate at the University of Zurich and a postdoctoral researcher at the Swiss Distance University of Applied Sciences. Her areas of research include the history of VET, teaching and learning in VET, and entrepreneurship education.

Meyne, L., & Siemer, C. (2024). Social capital of actors in VET: an egocentric case study based on the AI pioneers project. In C. Nägele, B. Esmond, N. Kersh, & B. E. Stalder (Eds.), *Trends in vocational education and training research, vol. VII. Proceedings of the European Conference on Educational Research (ECER), Vocational Education and Training Network (VETNET)* (pp. 75–81). VETNET. <https://doi.org/10.5281/zenodo.13236742>

Social Capital of Actors in VET: An Egocentric Case Study Based on the AI Pioneers Project

Meyne, Lisa

lmeyne@uni-bremen.de, University of Bremen, Institute Technology and Education (ITB)

Siemer, Christine

chsiemer@uni-bremen.de, University of Bremen, Institute Technology and Education (ITB)

Abstract

Context: The importance of involved stakeholders and their networks in international cooperation in vocational education and training (VET) is highlighted in various empirical studies. A systematic empirical survey of these by means of social network analysis, however, has hardly been applied to date. This paper focuses on the development of social capital in the course of network building and its sustainability in an international consortium using the case study of the funded Erasmus+ project AI Pioneers.

Approach: This paper draws different theoretical approaches to network research to form the theoretical and conceptual framework of the study. In the following, the focus of this article is on the application of the social network analysis method in VET. The emphasis here is primarily on the intensity of relationships, drawing on the work of Granovetter as well as Marsden and Campbell.

Findings: We present the results of one case of the survey, more precisely a country-specific network of a partner of the AI Pioneers project. In all described cases, the closeness of the relationship between ego and alter goes beyond the pure exchange of information. Particularly noteworthy is the fact that the relationships with a proportion of the actors did develop during the project funding period, which underpins the project partner's effective network-building activities.

Conclusions: The presentation of the results has shown that collecting network data in VET can be a useful method for determining social capital and the sustainability of funding investments. Future research in VET would be worthwhile regarding the collection of (quantitative) whole network data related to the long-term sustainability of the relationships established beyond the end of the project.

Keywords

vocational education and training, VET, social network analysis, social capital, egocentric networks

1 Introduction and research context

The importance of involved stakeholders and the resulting social networks in international cooperation in the field of vocational education and training (VET) is highlighted in a large number of empirical studies (see e.g., Billett & Seddon, 2004; Gessler, 2019; Peters & Gessler, 2019; Pilz, 2016; Röhrer et al., 2021). Networking is being promoted on a large scale with various research and development projects in VET as part of international funding initiatives,



particularly by the European Union (EU) through the Erasmus+ program (European Commission, 2024). The Erasmus+ program focuses directly on cross-border networking as a constant implicit feature (European Commission, 2024), with some projects even explicitly defining international networking as one of their core objectives and increasingly focusing on exchange and cooperation across national borders on specific topics. In view of the international focus of the funding invested, the question of the sustainability of the network structures of the funded projects arises. Gessler and Siemer (2021) argue that in order to assess the sustainability of international VET cooperation, a parameter is needed that is able to address the topic. In this regard, the authors refer to social capital according to Bourdieu (1983), which can be described as the combination of resources associated with the possession of enduring relationships, which may be institutionalized to varying degrees.

This study uses social network analysis in the context of international VET research and thus addresses the question of the sustainability of international VET cooperation under consideration of social capital, which is examined exemplarily on the basis of the Erasmus+ project AI Pioneers. The project AI Pioneers (funding period 2023-2025) promotes the use and teaching of Artificial Intelligence (AI) in adult and vocational education and training, with a total of ten project partners from seven EU countries involved in the consortium (Germany, Greece, Portugal, Italy, Spain, Cyprus, Estonia). The main focus of the project, besides the development of policy recommendations, AI toolkits, implementation guidelines of AI use cases and guidelines for the ethical and trustworthy use of AI in education, is on the implementation and establishment of an international network of AI Pioneers so that e.g., VET teachers, educators, stakeholders, policymakers and educational planners are addressed as reference points for the design and implementation of future education projects related to AI (see e.g., Attwell et al., 2023). As network formation is at the core of the AI Pioneers project, this article aims to contribute to recording the network structures and describe the social capital that has been created. For this purpose, we use the egocentric network analysis (Fuhse, 2018) and examine the development of the intensity of the established relationships over the duration of the project. As social network analysis has so far been little used in international VET research, this article will also focus specifically on the method itself. Therefore, the following research question will be pursued in the context of the submission: *Which actors play a central role at the beginning of network building in the field of vocational education and training in the international Erasmus+ project AI Pioneers?*

Subsequently, the underlying theoretical framework of the study is first explained, so that the methodological approach to data collection is then described as an egocentric social network analysis. Building on this, the results of an exemplary case will be described and visualized.

2 Theoretical framework

The focus of this article will be on the application of the method of social network analysis in VET and the reflection on it, as well as on the presentation of the intensity of the relationships of the AI Pioneers project and their content-related dimension. Thus, an excerpt of the empirical survey conducted as part of the AI Pioneers project is presented as a case study due to the limitations of this paper.

The basic idea of the promoter model is the assumption that promoters are able to overcome barriers in the innovation process due to suitable resources, which has a promising effect on the implementation of projects and networks (e.g., Gessler, 2019; Witte, 1999). As the funded AI Pioneers project is an innovation project, the promoter model is used to apply the "content-related dimension of support" (Gessler & Siemer, 2020, p. 46) within the networks to be analysed with the roles of *power promoter*, *expertise promoter*, *process promoter* and *relationship promoter* (Gemünden & Walter, 1998; Hauschildt & Chakrabarti, 1988; Witte, 1973).

Furthermore, the differentiation between bridging and bonding social capital, and thus the intensity of relationships, is crucial (Patulny & Svendsen, 2007). The distinction between strong and weak ties can be traced back to Granovetter (1973). According to Granovetter (1973), the strength of the relationships is primarily influenced by the duration of the relationship, the emotional intensity and intimacy in terms of shared content and reciprocity, with a limited focus on specific indicators to measure the phenomenon. Furthermore, Granovetter (1973) points out that relationships intensify the more time the interaction partners share together and that strong relationships are primarily entered into by persons who are similar to each other, which is known in network research under the term of *social homophilia*. Following on from Granovetter (1973), Marsden and Campbell (1984) empirically addressed the question of which further indicators can be used to capture the strength of social relationships. Granovetter (1973) uses the frequency of contact between the interaction partners as an indicator to capture strong ties. Following on from Granovetter (1973), Marsden and Campbell (1984, 2012) also empirically addressed the question of which further indicators can be used to capture the strength of social relationships. The authors primarily identified indicators for the closeness of relationships and also refer to the frequency of contact as well as the duration described as the years of acquaintance (Marsden & Campbell, 1984).

Building on this, Gessler and Siemer (2020; see also Siemer & Gessler, 2021) introduce a specification in the form of a level model for measuring the closeness of social relationships which is applied in the course of the present work:

1. *Pure exchange of information*: Thus, the relationship on the first level is classified as relevant between the interaction partners but represents a pure exchange of information between them, so one can speak of a weak relationship at this point.
2. *Mutual exchange*: On the second level, mutual exchange of information is given, so that there is no reciprocity between the actors, which is still characterised by distance
3. *Goal-oriented coordination*: The third level of the model represents purposeful agreement regarding a particular result and the willingness to coordinate actions.
4. *Cooperation*: Interdependence is a characteristic of the fourth level, which is characterised by cooperation between actors through involvement in a shared context.
5. *Trust in each other*: As the last level of the model, Gessler and Siemer (2020) refer to the level of trust, which is characterised by the continuity of the relationship and, as the highest level, represents a strong relationship.

The different levels are characterised to varying degrees by the features of relevance, reciprocity, intentionality, interdependence and consistency, so that the intensity increases over the five levels and the attributes of the subordinate levels are to be assigned to the superordinate levels as well (Gessler & Siemer, 2020). The model has not yet been applied empirically in its entirety, which will now be addressed in this paper.

3 Research approach

In the course of this article, egocentric network analysis will be presented using the Erasmus+ project AI Pioneers as a case study from the field of VET research. When network data is collected using egocentric network analysis, the relationship of the ego as the center of the network and, originating from it, the existing relationships with relevant actors are the focus of interest:

Egocentric network data describe the local social environments surrounding individual actors in a network – usually comprising one or more of each focal actor's

direct contacts ('alters') and certain qualities of the dyadic relationships between that actor ('ego') and the alters. (Marsden & Campbell, 2012, p. 18)

In contrast to the survey of overall networks, the names of the actors in the context of an ego-centered social network analysis and thus the contact persons of ego are not known to the researchers in advance, a clear demarcation is therefore even more important with regard to the delimitation of the network (Häußling, 2009). The topic of defining the boundaries of networks is therefore central to network research, although there is no clear consensus on how these are to be clearly defined and what meaning emerges from them (Häußling, 2009). Accordingly, we define the network to be analysed in this study along the thematic focus of the AI Pioneers project. Using egocentric network analysis, the ten individual project partners are asked about their relevant relationships in the project context, thus focusing on a specific number of actors and relationships.

For the data collection, we use a standardized guideline in an interview setting with each (funded) project partner (Döring, 2023). With regard to the promoter model, a preliminary inquiry was carried out to identify the relationship promoter of each funded project partner who represents the ego of the present study. In order to gather as much contextual knowledge as possible about the subsequently generated network maps, the standardized key questions are supplemented by further in-depth questions. Furthermore, an attempt was made to minimise the potential influence of the researchers on the data collection by standardising part of it. The data is subsequently analyzed, evaluated and visualized using the VennMaker tool (Kronenwett & Schönhuth, 2014). Due to the international composition of the project consortium, the data collection is carried out and recorded digitally using a video conferencing system.

This work is primarily concerned with the development of social capital in order to be able to identify case-related statements about network formation and its sustainability. As social capital is positively influenced by a lasting relationship between ego and alter, the importance of the intensity of the relationship between ego and alter is also emphasised. Accordingly, the presentation of the results focuses on the one hand on the main category "intensity" with the subcategories, closeness between ego and alter, mutual exchange of trust between ego and alter (reciprocity), initiation of the relationship, years of acquaintance (duration), communication channel and frequency of contact. In order to be able to describe the supportive dimensions of the alters within the networks to be analysed, the main category "function" with the corresponding subcategories power promoter, expertise promoter, process promoter and relationship promoter is also taken into account in the analysis. Due to the limitations of this paper, some of the results of the overall study of the AI Pioneers project are presented below as "work in progress".

4 Interim results

In the following section, the results of a case, more precisely a country-specific network of a partner organization of the AI Pioneers project from Germany, are briefly presented in the categories mentioned above in order to be able to make statements about the intensity of the relationship between ego and alter and to gain insights into social capital. First of all, it should be emphasized that the interviewee (ego) of the project partner's organization was selected by the organization itself with regard to the selection criterion of the relationship promoter, i.e. the person who primarily maintains contacts with project-relevant actors of the network. At the time of data collection, ego's project-related network consisted of 12 alters, of which 9 actors came from the education sector, mostly vocational schools, but also 3 actors from the field of university and non-university research. Only one actor is located outside the country of origin of the partner organization in another EU country, all other contacts exist within the borders of their own country.

In all cases, the closeness of the relationship between ego and alter goes beyond the pure exchange of information. Some relationships are described as a mutual exchange characterized by a certain distance (4 alters in total). Most relationships are categorized by ego as goal-oriented cooperation (7 alters in total), which indicates a promising relationship with regard to the future development of trust. Only one relationship with an actor is categorized with the highest intensity of a relationship, meaning that there is already mutual trust and, a strong relationship. Ego rates the willingness to share knowledge and information with 11 stakeholders highly, so that a certain level of trust with a relatively high degree of reciprocity is already present in almost all relationships, which can be particularly advantageous with regard to the project objectives.

It is therefore particularly noteworthy that the relationships with a proportion of the actors mentioned did develop during the project funding period: A total of seven relationships already existed before the start of the project (more than two years), and five relationships were established during the course of the project (less than one year).

What all the relationships named by ego have in common is that the preferred communication channel is a mixture of different communication media, so the telephone is primarily used here to establish direct and personal contact with the alters, but in the end, a combination of telephone calls, emails, meetings in presence and video calls is used. Furthermore, the frequency of contact between ego and alter occurs less than once a month for most relationships, with reference being made here to variations depending on the project phase and the upcoming involvement of the actors.

With regard to the classification of the alters in terms of the promoter roles, it can be seen that all actors fill all four promoter roles to a certain extent. However, the power to affect the progress of the project (power promoter) is rather low for most of the actors (some power = 9), whereas the power is rated as rather high for a total of three alters, which are actors from the vocational schools, whose AI projects are of particular importance for the progress of the network formation as the main objective of the AI Pioneers project. A different picture emerges with regard to the expertise promoter, as all actors are classified as having between rather high and very high expertise by ego in terms of their specialist knowledge in the project context. Therefore, the project-related expertise of ego is classified as relatively high overall with regard to the listed alters, while at the same time the actors have a high level of social capital, which is reflected in the (external) relationships that they bring to the project network (relationship promoter). In contrast, the process knowledge varies across the alters, ranging from no process knowledge to very high process knowledge, with the focus of nine alters on a overall strongly established process knowledge (process promoter).

As we can only depict a very small section of our ongoing research in the course of this paper, the reflection on the data collection can only take place to a limited extent. As an interim evaluation, we come to the conclusion that the survey instrument in combination with the guideline-based expert interviews proved to be a useful structuring tool for the complex content of the interview setting during the data collection. In the course of this article, the network of a partner organization in the project was introduced, which currently has a large number of contacts to actors who are already dealing with the topic of AI in educational settings and thus represent a great enrichment for the project. The collection of further data in the course of the study will show how the other country-specific networks of the ten project partners are represented and where there should be adjustments to the strategies for attracting actors in the sense of network formation in the course of the project duration.

5 Conclusion and outlook

The presentation of the results has shown that collecting network data in VET can be a useful means of determining social capital and the sustainability of funding investments. It can be expected that the project partners of the Erasmus+ project *AI Pioneers* and their relationships with relevant stakeholders, which have arisen in the project context and also relate to it in terms of content, will intensify over the course of the project implementation and thus contribute to the sustainability of the network. Accordingly, the long-term focus should be to ensure and increase the sustainability of the developed social capital as well as the project-related investments within the framework of the funding beyond the project duration. Furthermore, it can be expected that the networks and thus the social capital of the project partners within the international consortium will differ significantly from one another, possibly due to the different partners and their relationships with project-relevant stakeholders as well as their experience in the implementation of international projects in the context of artificial intelligence in educational fields. Interesting results could also emerge with regard to the funded partner organisation in the project concerning the role of the relationship promoter, as the size of the networks may depend strongly on the commitment of individuals and their networking skills in the context of vocational education and training. An analysis and illustration of the results of the overall investigation of all partners in the project consortium will provide deeper information here and will be presented in a journal publication.

Beyond the research design presented, future research with regard to the survey of overall networks, as well as the associated quantitative key figures in terms of density and centrality, would be particularly interesting to follow in international research of vocational education and training, as well as the perspective of the long-term sustainability of the relationships established beyond the end of the project in national and international VET projects.

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Biographical Notes

Lisa Meyne, M.A., is a doctorate candidate and a research associate at the Institute Technology and Education (ITB) at the University of Bremen in Germany. Her research interests focus on the transfer, complexity and innovation of vocational training services in international contexts.

Dr Christine Siemer is a postdoctoral researcher at the Institute Technology and Education (ITB) at the University of Bremen in Germany. Her research focus is on digitalisation and internationalisation of vocational education and training.

Michek, S., & Hloušková, L. (2024). Collaboration of vocational teachers in VET schools in the Czech Republic. In C. Nägele, B. Esmond, N. Kersh, & B. E. Stalder (Eds.), *Trends in vocational education and training research, vol. VII. Proceedings of the European Conference on Educational Research (ECER), Vocational Education and Training Network (VETNET)* (pp. 82–92). VETNET.
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Collaboration of Vocational Teachers in VET Schools in the Czech Republic

Michek, Stanislav

stanislav.michek@uhk.cz, University of Hradec Králové, Faculty of Education

Hloušková, Lenka

hlouskoval@ivp.czu.cz, Czech University of Life Sciences Prague, Institute of Education and Communication

Abstract

Context: Collaboration as one of the forms of professional practice of vocational teachers, which can be of benefit to VET schools (technical secondary schools and vocational secondary schools) and the whole segment of upper secondary education, has not been studied in the Czech Republic.

Approach: The aim of this paper is to find out how teachers of vocational subjects and practical teaching evaluate collaboration with the school management and with each other in the schools. Based on a secondary analysis of data from the Czech School Inspectorate (CSI), we observe the rate and the intensity of cooperation between vocational teachers and school management and with each other in public VET schools and private VET schools.

Findings: Beginning vocational teachers are more likely to work with school management to improve the educational process than teachers in later stages of their careers. In private VET schools, vocational teachers express a greater rate of cooperation with school management and among themselves than in public VET schools established by the region, but public VET school teachers show more intensive cooperation.

Conclusion: Our findings are among the first results mapping vocational teachers' collaboration in the Czech Republic and our conclusions support the presumption of the differences of vocational teachers' collaboration between the schools.

Keywords

vocational teachers, collaboration, teacher's career, secondary data analysis

1 Introduction

Changes in initial vocational education and training (Cedefop, 2023) call for the need to research focus on how vocational teachers (teachers of vocational subjects) collaboration can support the cope with new challenges and requirements for their professional development and thus the quality of their educational and training work. Indeed, teacher collaboration facilitates the implementation of educational reforms (e.g. Fullan, 2016) and supports innovation in teaching practices (e.g. Sirk, 2024) or teacher adaptation to change.

Collaboration as one form of vocational teachers' professional practices has been the subject of a number of studies (Vangrieken et al., 2015; Weddle, 2022), which show that collaboration brings many benefits not only for the teachers themselves but also for the schools where the teachers work (Vangrieken et al., 2015; Weddle, 2022). Similar conclusions are also reached by authors who have examined the effects of collaboration on commitment, self-efficacy, job



satisfaction (e.g., Hawon Yoo & Liu, 2023; OECD, 2020), teacher well-being, or the impact of teacher collaboration on student learning and academic performance (Weddle, 2022). In these cases, there is evidence that teachers' interdependence in solving tasks and problems creates a collaborative environment in schools that promotes learning (Runhaar et al., 2016).

Given research findings that document differences in the attitudes and opinions of teachers working in public and privately funded technical secondary schools (e.g. Fu & Lai, 2023; Honingh & Oort, 2009), it can be expected that vocational teachers' collaboration will also differ in these types of secondary schools. From this perspective, teacher collaboration becomes a 'tool' to widen the gap between secondary schools.

Our aim is to find out how teachers of vocational subjects and practical teaching from public and private VET schools evaluate collaboration with other teachers in the school and with school management. Public and private VET schools in the country differ primarily in their funding arrangements. Public VET schools (mostly established by the regions) are financed from the tax budget through the so-called PHMax indicator (maximum weekly number of teaching hours in accordance with the framework education programme financed from the state budget). Human resources and operating costs are financed by the founder - the region. Investment costs are financed by the founder and/or by projects. For private VET schools, human resources are financed by the state through the norm for the respective field of education (the more pupils there are, the more money for human resources = teachers). Operating costs are covered by the education fee (money from the pupils' parents) and investment costs by projects and the founder.

2 Teacher's collaboration

Teacher collaboration has been defined as both a descriptive and normative concept (Hargreaves & O'Connor, 2018), and in both cases, it refers to teachers' interactions in joint ad hoc activities or actions (e.g., information exchange, co-teaching) that are directed towards a shared goal (Kolleck et al., 2021; Vangrieken et al., 2015). Yet, it does not matter so much whether vocational teachers work together (intentionally doing things together), but rather how they work collaboratively to problem solve and negotiate conflict constructively (CASEL'S SEL Framework), which reference to common professional goals and tasks (Bükki & Fehérvári, 2021; Gräsel, Fußangel & Pröbstel, 2006). Common professional goals and tasks trigger the need for more frequent and better quality interactions between teachers, as teachers feel interdependent in managing tasks, solving problems and thus achieving goals. This is accompanied by greater accountability for the performance of others (Runhaar et al., 2016). Collaboration defined in this way presupposes a certain degree of professional autonomy, requires a high level of communication skills, mutual trust and a commitment to reciprocity (Kolleck et al., 2021). On the other hand, it is clear that teacher collaboration is influenced by the organizational context and culture of the school where teachers work, development of each teacher as autonomous professionals, as well as by the shared understanding of collaboration in the professional community to which vocational teachers belong.

In this paper, we draw on a descriptive conception of collaboration (Hargreaves & O'Connor, 2018) and define collaboration as one of the professional competencies of teachers (CASEL'S SEL Framework; Meys, 2023) that vocational teachers change or develop during their careers in the context of individual VET schools in three different ways. The ways in which teachers work together can be viewed as a continuum. In this vein, Little (1990) distinguishes three levels of collaboration which, in the context of the organisational structure and prevailing school culture, impact slightly differently on teachers' professional development. The different degrees of collaboration (Little, 1990) vary in terms of the frequency and intensity

of interactions, the degree of interdependence (collective autonomy) and thus the likelihood of interactions:

- storytelling and scanning for ideas (exchange information, ideas, ...),
- aid and assistance, which is characterised by division of work and synchronisation,
- co-construction (collaborative work where teachers depend on each other to create new teaching practices, standards, ...).

The development of vocational teachers' collaboration as a professional competence can be anchored in what is called organisational professionalism (Evetts, 2012), the ideal of which is the school as a learning organisation. However, with regard to the aim of this paper, we situate vocational teachers' collaboration more in the context of occupational professionalism (Evetts, 2012), which is constructed in the professional community of teachers in the form of normatively coloured collaborative professionalism (Hargreaves & O'Connor, 2018). The ideal of collaboration defined in this way is a professional growth process in which teachers learn from and with each other by sharing knowledge and expertise (Kools & Stoll, 2016, p. 40).

In our examining collaboration as one of the professional competencies of teachers, we draw on the works of Day (1999, 2012), who notes the following on the development of teacher professionalism: "Teachers' thinking and actions are the product of the interplay between their life histories, their current developmental stage, the classroom and school environment, and the broader social and political context in which teachers work" (Day, 1999, p. 6).

3 Research questions

Specifically, we were interested in how the length of teaching experience of teachers of vocational subjects and practical teaching influences their evaluation of their cooperation with the school management and among teachers. Furthermore, we were interested in how the type of VET school at which the vocational teachers work influences their evaluation of collaboration with school management and between teachers. We focus on all groups of vocational teachers in the country along the professional continuum and compare them to each other. The research questions are formulated as follows:

1. RQ1: How do vocational teachers rate their collaboration with school management according to their stage of professional life (Day, 2012) in VET schools?
2. RQ2: How do vocational teachers rate their collaboration with school management in public VET schools and private VET schools?
3. RQ3: How do vocational teachers rate the collaboration between teachers in public VET schools and private VET schools?
4. RQ4: What is the intensity of collaboration between teachers (Little, 1990) in public and private VET schools?

We approached these research questions by creating our own categorization of teachers according to Day (2012) and a categorization of teachers according to the intensity of collaboration (Little, 1990) on teaching activities in the CSI data according to the combination of their length of experience. In addition, we created our own content indices by selecting relevant items from the CSI questionnaire batteries, by selecting relevant reported research in relation to the research questions. In the following, we provide a general description of the dataset, the categories of teachers we created, the way the content indices were operationalized, and the statistical procedures used.

4 Methodology

The aim of this paper is to investigate whether vocational teachers' perceptions of collaboration with each other in school and with school management differ at different stages of their careers and whether the perceptions of collaboration differ between vocational teachers working in public VET schools run by the county and those working in private VET schools. To do this, we used secondary analysis of the Czech School Inspectorate (CSI) datasets from the school years 2018/2019 to 2022/2023, except for the school year 2020/2021. CSI data are not available from this school year because most of the time, due to the COVID-19 pandemic, the government's school closure measures were in place, and CSI did not conduct inspection visits to schools. Data for this paper were obtained from the Open Data Portal (<https://data.gov.cz/>), where all data are anonymised, i.e. they do not contain some socio-demographic data (e.g. gender, age, highest qualification achieved). The datasets used contain answers to questions asked to secondary school teachers (general and technical/vocational) through an electronic questionnaire during school inspection activities. Teachers' responses serve as supplementary information to the inspection findings obtained from visits, analysis of school records and other sources.

4.1 Characteristics of datasets and respondents

From the four datasets (2018/2019, 2019/2020, 2021/2022, 2022/2023), we selected the responses of teachers who indicated that they teach a vocational theoretical subject and/or practical subjects for ISCED 3. As the same questions were asked to teachers in the four school years mentioned in the CSI questionnaires (identical wording, identical range of answers), and the CSI visited different schools during the four years for inspection activities (the questions were not asked to the same teachers during the period under review), they could be combined into one dataset. In this way, responses were obtained from 6094 teachers teaching vocational subjects in 672 vocational schools for ISCED 3 (67.7% of VET schools in the Czech Republic)¹.

Of the total 6094 teachers, 4861 teachers (79.8%) worked in 460 public VET schools established by the county, 1012 teachers (16.6%) worked in 174 VET schools established by the private sector, 78 teachers (1.3%) worked in 16 VET schools established by the church, and the remaining 143 teachers (2.3%) were from 22 schools established by municipalities or the state government. Teachers were from all over the country and their distribution was more in line with the distribution of teachers in the different regions of the country. 3081 teachers (50.6%) taught only vocational theoretical subjects, 1673 teachers (27.5%) taught practical teaching or vocational training, and the remaining teachers (22.0%) reported that they taught vocational theoretical subjects and practical teaching/vocational training.

4.2 Categorization of teachers in terms of length of experience and intensity of cooperation

To answer the research questions, we created a job categorization of teachers within the dataset based on their years of teaching experience, inspired by Day's (2012) distribution. The representation of respondents within each category is presented in Table 1.

¹ According to the statistics of the Ministry of Education, Youth and Sports, in the school year 2022/2023 there were 992 schools with technical and vocational education of secondary schools without extension fields of education.

Table 1

Representation of respondents within each category by length of experience.

Number of years of experience in education and category		N	%
0-3 years	commitment: support and challenge	778	12.8
4-7 years	identity and efficacy in classroom	674	11.1
8-15 years	managing changes in role and identity: growing tensions and transitions	1263	20.7
16-23 years	work-life tensions: challenges to motivation and commitment	1343	22.0
24-30 years	challenges to sustaining motivation	1095	18.0
31+ years	sustaining/declining motivation, ability to cope with change, looking to retire	927	15.2
	missing values	14	0.2
Total		6094	100.0

From the questions asked by the CSI to secondary school teachers (both general and technical/vocational) in their school inspection activities, we categorized the ways in which teachers of vocational subjects cooperate according to (Little, 1990) as follows:

- storytelling and scanning for ideas = exchange of information on teaching methods and forms; exchange of various teaching materials;
- aid and assistance = cooperation within subject committees / methodological bodies; hospitalization with other colleagues;
- co-construction = joint planning of teaching, joint teaching.

We assigned one point to the forms of cooperation storytelling and scanning for ideas, two points to aid and assistance and three points to co-construction. We then created a sum index, i.e. a self-categorization of teachers according to the intensity of teacher collaboration. The representation of the respondents within each category is presented in Table 2 (see Table 2). The mean score for the intensity of teacher collaboration is 2.41, and the SD is 1.39 (min=0; max=8).

Table 2

Representation of respondents within each category by intensity of cooperation according to Little (1990).

Category (number of cooperation points)	Number of respondents	Share
0	397	6.5
1	1199	19.7
2	1914	31.4
3	1210	19.9
4	904	14.8
5	295	4.8
6	95	1.6
7	28	0.5
8	6	0.1
Missing values	46	0.8
Total	6094	100.0

In line with the research questions, the focus was on 10 items related to perceptions of collaboration with school leadership and among teachers in the school. Exploratory factor analysis was used for these items. The extraction (Principal Component Analysis; Oblimin with Kaiser Normalization) found two factors accounting for 64.0% of the total variance extracted.

Based on these, we created two indices (see table 3) from several items of the CSI questionnaire – see Appendix.

Table 3

Descriptive characteristics of the indices.

Index	Number of items	Average	SD	Min	Max	Cronbach alpha
cooperation between teachers and management to improve the quality of the educational process	5	1.78	0.58	1-best	4-worst	0.863
cooperation between teachers leading to the improvement of the educational process	5	1.76	0.51	1-best	4-worst	0.841

Note. The indices items are in annex.

4.3 Statistical analysis

Statistical analyses were performed in the freely available software Jamovi (The jamovi project, 2024). For the creation of indices, we performed item analysis with checking the internal consistency of the created indices using Cronbach's alpha and McDonald's omega. For the purpose of descriptive statistics, arithmetic means and standard deviations and 95% confidence intervals of the means were calculated and reflected in the graphical presentation of the results. Therefore, as an indication, a univariate ANOVA analysis of variance was also used to compare the results in the indices between categories.

5 Results

RQ1: How do vocational teachers rate their collaboration with school management according to their stage of professional life (Day, 2012) in VET schools?

An one way analysis of variance showed that the effect of differences in cooperation between teachers and management to improve the quality of the educational process was significant, $F(5, 6051) = 4.04, p = .001$. Post hoc analyses using the Turkey post hoc criterion for significance indicated that the average index of cooperation was significantly upper in group of teachers with 0-3 years praxis ($M = 3.33, SD = 0.53$) than in the next three group of teachers (4-7 years: $M = 3.22, SD = 0.63$, 8-15 years: $M = 3.23, SD = 0.61$, 16-23 years: $M = 3.23, SD = 0.61$), $F(5, 6051) = 4.13, p < .001$. However, it was not significantly higher compared to the other two age groups (24-30 years: $M = 3.26, SD = 0.59$, more than 31 years of teaching experience: $M = 3.29, SD = 0.58$). Figure 1 indicates that pre-service teachers have more positive attitudes towards working with management to improve the educational process than other teachers. Teachers with 4 to about 23 years of experience have worse attitudes towards collaboration with school management. In the last phase of teachers' careers, attitudes improve almost to the level of novice teachers.

RQ2: How do vocational teachers rate their collaboration with school management in public VET schools and private VET schools?

The 4844 teachers from public VET schools had an average index of cooperation between teachers and management to improve the quality of the educational process 3.22 ($SD = 0.59$) and 1005 teachers from private VET schools had an average index of cooperation 3.41 ($SD = 0.54$). The effect of differences in cooperation, therefore, was significant, $F(1, 5847) = 87.8, p = .000$. Figure 2 shows that there are better attitudes towards collaboration between teachers

and with the school management to promote the improvement of the educational process in private VET schools than in public VET schools.

Figure 1

Teacher-management collaboration index for improving the quality of the educational process by length of teaching experience.

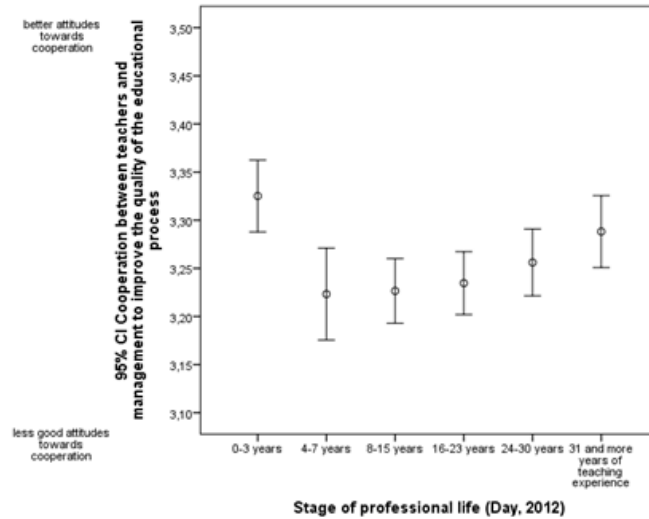
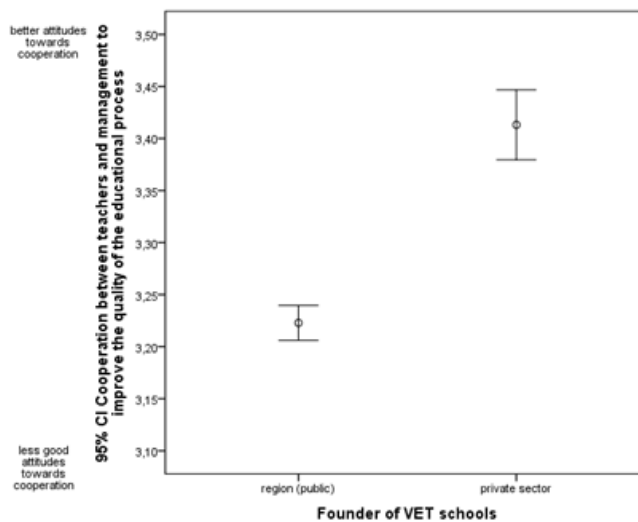


Figure 2

Index teachers' collaboration with each other and with the school management leading to an improvement of the educational process by the founder.



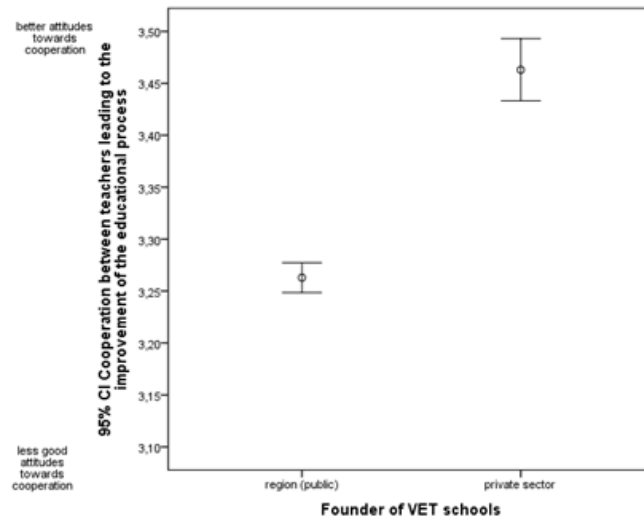
RQ3: How do vocational teachers rate the collaboration between teachers in public VET schools and private VET schools?

The 4830 teachers from public VET schools had an average index of cooperation between teachers leading to the improvement of the educational process 3.26 (SD = 0.51) and 1000 teachers from private VET schools had an average index of cooperation 3.46 (SD = 0.48). The

effect of differences in cooperation, therefore, was significant, $F(1, 5828) = 129.8, p=.000$. The figure 3 show that there are better attitudes towards collaboration among teachers in private VET schools compared to public VET schools, which leads to improvement in the quality of the educational process.

Figure 3

Teacher collaboration index leading to improvement of the educational process by founder.

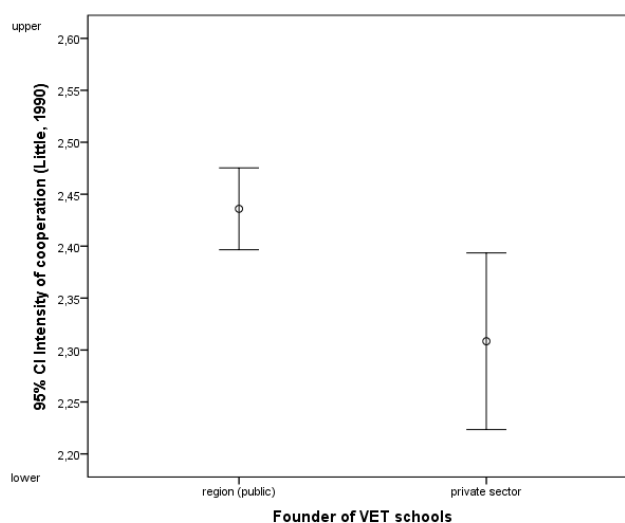


RQ4: What is the intensity of collaboration between teachers (Little, 1990) in public VET schools and private VET schools?

The 4824 teachers from public VET schools had an average intensity of cooperation 2.44 (SD = 1.40) and 1005 teachers from private VET schools had an average intensity of cooperation 2.31 (SD = 1.37). The effect of differences in intensity of cooperation, therefore, was significant, $F(1, 5827) = 7.0, p=.008$. The figure 4 show that teachers collaborate more intensively in public VET schools than in private VET schools.

Figure 4

The intensity of teacher collaboration (according to Little, 1990) by the founder.



6 Discussion

Based on the findings, it can be stated that beginning teachers of VET vocational subjects try to cooperate more with the school management to improve the educational process than teachers in the later stages of their careers. This probably reflects that they see their work as a challenge (cf. Day, 2012), they have the commitment and need for support in finding their teacher efficacy and they are yet not significantly influenced by the school culture, i.e. values, practices, established processes, relationships with other colleagues, including distance from school management, which are common in any school.

An interesting finding is for teachers with 31 or more years of experience. They evaluate collaboration with management to improve the quality of the educational process similar to novice teachers. They probably display maintaining the commitment and a professional self-confidence that is based on their own experience. This allows experienced teachers to improve, to keep them distance and perspective, but on the other hand, they are bound by the sense of responsibility to pass experience to young colleagues (cf. Lazarová et al., 2011).

The collaboration is developed differently each school as a way of interaction between teachers within the limits set by school culture. In private VET schools, teachers express a greater degree of cooperation with the management and among themselves in order to improve the educational process than in public VET schools established by the region founder. On the other hand, according to Little (1990), collaboration in various forms is more intense in public VET schools than in private VET schools. This can also be explained by the fact that private VET schools operate in a more competitive environment than public VET schools because they depend on the number of pupils, unlike public schools – private schools are funded according to the number of pupils in their respective fields of education. By needing private VET schools to succeed in the education market, their teachers express more positive attitudes towards cooperation than is the case in public VET schools, whose teaching staff are confident in the long-term existence of their employer, which cannot be threatened by reduced school enrolment. In fact, however, the intensity of cooperation is higher among teachers in public VET schools, which can be explained by the fact that these are schools that are older in terms of history and have an established culture of cooperation among teachers through various forms of cooperation (e.g. joint planning of teaching, cooperation within subject committees, hospitality with colleagues) than is the case with private VET schools, which have existed in the Czech Republic for a maximum of 34 years.

7 Conclusions

Finally, it is necessary to mention the limitations of the analysis, which are based on the nature of the datasets we worked with. In the case of the CSI datasets, the limitation lies in the anonymisation of the data, which was carried out in order to make the data public and not to identify specific respondents or their affiliation to a specific school. This means that the data is missing some variables that were certainly collected by the CSI from teachers through an electronic questionnaire during school inspection activities. These are socio-demographic items such as age, gender, and highest educational attainment. Another variable that we missed is the teacher's affiliation to a particular school. Therefore, it was not possible to analyse selected aspects of teacher collaboration with each other and with school management taking place within the school within the teaching staff and to make comparisons between schools.

In general, our findings show that different groups of VET teachers evaluate rate and intensity of collaboration differently, which can be some of the reasons why differently measures to promote teacher collaboration should be taken in many European countries (e.g. Runhaar et al., 2016) at the level of the education system or specific schools. However, policymakers in the Czech Republic still lack a more comprehensive picture of VET teacher collaboration in

different types of secondary schools, and so are often left with little choice but to succumb to pressure to make ad hoc decisions.

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Biographical notes

Dr Stanislav Michek is an assistant professor since 2012. His professional interests are divided between school management, teachers' professional development and educational evaluation, recently focusing more intensely on teacher evaluation.

Dr Lenka Hloušková is the assistant professor and head of the Department of Professional and Personal Development at the Czech University of Life Sciences Prague. She is focus on a school development, education and training career guidance practitioners and career guidance for emerging adults (in VET schools).

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Annex - description of the individual index items

Index of teacher and management cooperation leading to improvement of the educational process

Average of 5 scaled items; teachers responded to the instruction, "Indicate how much you agree with the following statements." A scale of 1 to 4 was offered, with 1=strongly yes, 2=likely yes, 3=likely no, 4=strongly no

1. Teachers are free to challenge management actions if they disagree with them.
2. Disagreements arising between teachers and school management are resolved and lead to an improvement in the quality of their cooperation.
3. Even though there are differences of opinion between the management and the teachers, they are able to continue to work together.
4. Teachers suggest possible changes to the school management to improve the quality of the educational process.
5. Management and teachers give each other feedback on their work.

Index of cooperation between teachers leading to improvement of the educational process

Mean of 2 scale items; teachers responded to the instruction, "Indicate how much you agree with the following statements." A scale of 1 to 4 was offered, with 1=strongly yes, 2=likely yes, 3=likely no, 4=strongly no

1. Teachers encourage mutual cooperation to further develop the educational process.
2. Teachers give each other feedback on their work.
3. Teachers are free to challenge colleagues' actions if they disagree with them.
4. Disagreements arising between teachers are resolved and lead to improved cooperation.
5. Even if there are differences of opinion among the teachers, they are able to continue to work together.

Peters, S. (2024). Handling the transformation? Further training in the automotive industry. In C. Nägele, B. Esmond, N. Kersh, & B. E. Stalder (Eds.), *Trends in vocational education and training research, vol. VII. Proceedings of the European Conference on Educational Research (ECER), Vocational Education and Training Network (VETNET)* (pp. 93–97). VETNET. <https://doi.org/10.5281/zenodo.13237050>

Handling the Transformation? Further Training in the Automotive Industry

Peters, Susanne

speters@uni-bremen.de, University of Bremen, Institute Technology and Education (ITB)

Abstract

Context: In view of its economic relevance, the transformation of German key industries, including the automotive industry, is on everyone's lips. The German Federal Ministry of Labor and Social Affairs' National Continuing Education Strategy from 2019 suggests actively supporting companies, especially small and medium-sized enterprises, in their transformation by enabling and supporting tailor-made continuing education for employees. The automotive industry is also economically significant in the federal state of Bremen: In 2020, more than 22.000 people were employed in this sector.

Approach: This article uses a qualitative approach to investigate the extent to which companies see continuing education as a key to managing the transformation. What skills are currently needed and will be needed in the coming years? Which challenges do employees and employers face?

Findings: The results suggest that the required skills for handling the transformation are not technical skills in the first place but especially social and personal skills. Decisions on further training are often not formalized and not made systematically. It can, therefore, be assumed that further training is not (yet) seen as a key role in handling the transformation.

Conclusion: We show that the companies in our sample are confronted with the implementation of effective CVET programs. Many companies do not yet view CVET as a pivotal tool for managing transformation. There is also a noted discrepancy between the skills required and the existing capabilities within the workforce, particularly in SMEs that lack the resources and expertise to develop comprehensive training plans.

Keywords

automotive sector; further education; CVET; transformation; qualitative study; Germany

1 Introduction

Transformation is on everyone's lips, especially in key industries (Wendland, 2022). This is understandable, given its economic relevance. In order to actively shape the socio-economic and ecological turnaround, a needs-based skilled workforce and a tailor-made range of qualifications are required to secure employment and to meet the change in required qualifications (Federal Ministry of Labour and Social Affairs, 2022). The automotive industry is an important sector in the Bremen area, Germany. In 2020, more than 22,000 people were employed in the industry, although this figure declined by almost a quarter between 2019 and 2020. The core of the automotive industry is the Mercedes plant in Bremen, Germany, with around 12,500 employees, although the number has also been declining here for years. The site has already initiated the transformation and will, therefore, be a driver of innovation for the automotive industry in the region in the coming years. The EQC1, the first electric vehicle of the new EQ product



and technology brand, has been built at the Bremen site since 2019 (Weise, 2018; Mercedes-Benz, 2022). Around 40-45 supplier companies with approx. 17,000 employees are in Bremen and the surrounding area. In addition, there are numerous service companies that are also affected by the transformation of the automotive industry (WFB, n.d.). While for the younger generations, the dual apprenticeship is supposed to strengthen its workforce with the breadth of training, it can be assumed that companies have a particular need for action when it comes to further developing older generations that are the sustainable skilled workforce base now. Small and medium-sized enterprises (SMEs) from the supplier and service sector have a particular need for support here, as they often do not have the necessary capacities and knowledge to design sustainable further training planning (Müller, 2023). This qualitative study, therefore, aims to answer the following research questions: To what extent is continuing education a key to managing transformation in Bremen and the surrounding area? What skills are needed now and in the coming years?

In their analysis based on job advertisements and a survey of 245 companies, Klier et al. (2021) determine so-called "future skills" for the automotive industry. They define these as "skills that are necessary to positively shape the future" (Klier et al. 2021, p. 5). Their analysis indicates that there is demand for skills in the field of *technological skills*, including in the skills clusters of software development, data management and software-supported control of business processes. This initially indicates a strong focus on automation. Within *industrial skills*, the greatest need is within the industrial production that is adapted to the transformation (alternative drive technologies, assisted and autonomous driving) and in the area of reinventing engineering (electrical engineering, industrial engineering). According to the companies surveyed, there will be a need for key *digital skills*, above all, digital & data literacy, agile working methods and digital collaboration & interaction. The high demand for *interdisciplinary skills* is also noteworthy. In times of change, companies believe that flexibility and leadership flexibility and leadership skills, in particular, are playing an increasingly important role.

Having these skills in mind, we want to know which of these future skills described by Klier et al. (2021) and which training needs are identified in the surveys of Bremen automotive companies. In how far do companies have ideas to meet these needs and requirements?

The study takes place in the context of the project "Continuing education network of the Bremen automotive industry", funded by the German federal Ministry of Education and Research, the European Social Fund and the state of Bremen. For this reason, companies from Bremen, the surrounding area of Bremen and Bremerhaven (a city belonging to the state of Bremen) are surveyed in the study. We pursue a qualitative research design with expert interviews and focus group discussions for this research paper.

2 Methods

The sample of qualitative interviews is characterized as follows: Interviews were conducted in 21 companies, including skilled workers, operational managers, managing directors, shift supervisors, works council members and commercial and managerial staff. The companies surveyed belong to the following sectors: Logistics; workshops; dealerships; vehicle construction and conversion; vehicle reconditioning; IT-related services; contract logistics; mobility service providers; retail; sales branches of German OEMs (Original Equipment Manufacturer). The company numbers are between 20 and 800 employees. The interviews were all documented: Minutes (n=119) or audio recordings, including transcription (n=16), were made.

In all surveys, socio-demographic data (m=121; f=14; d=0) and previous participation in further training were collected. In addition, the current situation of professional and operational requirements and a target assessment were surveyed, and characteristics of good further training and expectations of future further training were discussed.

The interviews took place between December 2022 and March 2024 in the form of focus group discussions (n=119 in 20 groups with approx. 5-6 participants per group) plus expert interviews (n=16) and lasted approx. 60-90 minutes each. The interviews were evaluated using topic-centered, qualitative content analysis with the help of MAXQDA (Kuckartz, 2018).

3 Results

After identifying the main challenges and barriers, we present specific ideas and requirements from the interviews. Ongoing digitalization is increasingly demanding IT and programming skills, both among trainees and permanent staff. In general, the fundamental *import-export change* (meaning that Germany was a traditional export state in automotive and is now importing on a growing level) is leading to new requirements for personnel. For example, imported vehicles must be made roadworthy for EU roads by workshops and suppliers.

One of the main challenges facing Bremen's automotive sector is employee recruitment. In-house initial vocational training is still the most promising way of recruiting. Companies that do not provide training themselves have visibly more problems recruiting junior staff. Vacancy periods may be significantly longer, and the positions are not filled with the right person but "just anyone" (I_09, 05.09.2023, commercial staff).

Another factor comes up in the discussion about *digitalization and technologization*: in many cases, a company's own position in the automotive value chain makes it highly dependent. Interviewees describe how customers specify their requirements (technological, digital requirements) - and that this increases dependency. "The customers decide what happens in our company" (I_53, 11.10.2023, operational manager). The fear of this dependency and its effects is expressed in most interviews.

A noticeable skills cluster that came up in most companies without directly addressing it in the interview guide is the field of *language skills*. In particular, subject-specific language barriers are perceived as a major obstacle for a majority of the interviewees (e.g., formulated by skilled workers, shift supervisors, managerial staff). We found that the languages spoken in the workforce are also underrepresented in lower and middle management positions.

In the area of *specialist skills*, some companies have specifically formulated their training needs. For example, surface treatment, including bonding techniques, electrical engineering basics, the basics of e-mobility, tyre pressure monitoring and sensor technology, painting and wrapping and the operation of certain machines are among the specialist skills mentioned (by skilled workers). Some companies state that there is no need for further training or that this is implemented almost immediately - especially if customer requirements demand it. Some interviewees reported that the topic of further training has disappeared from the agenda in their company since the Covid-19 pandemic. In terms of the need for *social and personal skills*, specific further training in the areas of leadership, management and project management, generational understanding, corporate communication and vision were formulated.

The following ideas and requirements were expressed by the companies to meet these challenges:

Employees would like more active support from employers in order to be able to have further training in a targeted and systematic way. An *active further training culture* (in the sense of a learning culture or learning organization; Garvin, 1993), including a strategy for securing skilled workers, only exists in around one-third of the companies surveyed. In several cases, there is a matrix system with a target/actual comparison of professional competencies, but this is not accessed in practice and only exists on paper. So, continuing vocational education is not seen as a central tool of importance.

The desire for language courses in the workplace addresses the further development of language skills. German and technical language in the workplace and the acquisition of language skills are particularly important for skilled workers, so individual concepts (regarding language and expert skills knowledge) are demanded.

Another idea, or rather expressed need, is the availability of training offers for the companies. A *matching platform* (demand within companies meets the supply of training providers) would lead to a higher implementation rate of further training needs.

Overall, there is a great interest in *individual further training solutions* and funding opportunities to take advantage of further training, for example, via the German Qualification Opportunities Act.

4 Discussion

The results are discussed below with reference back to our research question. The question of which skills are currently needed and will be needed in the coming years includes, on the one hand, specialist skills with specific content requirements, primarily industrial skills. Furthermore, language, social and personal skills are also becoming increasingly important in view of ever faster changing technologies, assigning these to the future skills "interdisciplinary skills". It is striking that most of the needs that are expected in the future are addressed in this skills cluster. This ties in with the broader question of the extent to which skilled workers and employees (should) already be taught generic skills during their vocational training in the interests of lifelong learning. With an increasing number of unskilled employees, further training courses should take this into account and, e.g. modularized, be able to impart technical and interdisciplinary skills. This also speaks in favor of the individualized form of in-company further training desired by companies.

One of the most frequently mentioned skills areas in which there are deficits is language skills. This is not included in the skills set of Klier et al.'s future skills analysis. This reflects the current situation due to labor migration: skilled workers and workers are urgently needed in the German labor market, and Germany advertises that it is one of the countries with the lowest restrictions on the immigration of skilled workers and highly skilled workers (BMI, 2024). At the same time, German language skills (language level A2) are required for qualification measures and qualification within employment subject to social security contributions is hardly eligible for funding from the federal and state governments. New qualification models for language learning in the workplace are therefore urgently needed and are currently being tested. For example, a Bremen automotive company is currently in a pilot phase with a training provider to test in-house language courses in the workplace. In principle, this idea of greater cooperation between training providers and companies is to be welcomed, as it enables company-specific further training solutions. This idea, hand in hand with a matching opportunity for training providers, can lead to innovative qualification designs.

4.1 Limitations and Outlook

In addition to findings on continuing education behaviour in the automotive sector, this study also has research methodological uncertainties. The qualitative survey was conducted in the Bremen and Bremerhaven region, and the results are also not universally valid, but the sectors cover a broad spectrum of the automotive value chain. First and foremost, the perspective of the companies guides our research. Works councils could not be interviewed at every company and should be included systematically rather than partially in further surveys. Training providers should also be included in the analysis, these were not part of the study. We also asked employers and employees in some companies, which makes the perspective unclear in some parts of the description of the results.

Future research projects could, for example, in the form of case studies, analyse pilot projects of individualized continuing education offers between companies and educational institutions to identify best practices. Vocational schools also play only a minor role in formal continuing education; they could be strengthened as providers of continuing vocational training (working group 9+1, 2022). Furthermore, a connection between financial support used by companies and the impact on participation in continuing education and training and its impact on dealing with the transformation could be considered. An OEM was also not part of the surveys. Their role in the transformation process and potential (further training) alliances of an OEM together with SMEs would also be further approaches for research work.

From a theoretical perspective, it would be desirable and enlightening to include the competence dimensions of professional competence in future research.

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Biographical notes

Dr Susanne Peters is a postdoctoral researcher at the University of Bremen. She is interested in international comparison of VET systems, as well as in innovative training forms, for example in the connection of initial VET and continuing VET.

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Vocational Identity – Relevance and Development in the VET System

Struck, Philipp

philipp.struck@kh-mz.de, Catholic University of Applied Sciences, Mainz

Abstract

Context: The article focuses on the importance of vocational identity and the comparative analysis of this dimension across different occupational branches. The development of vocational identity is a central target in vocational education and training (VET) and is particularly important for the career development of employees. The level of vocational identity depends on the occupation and apprenticeship. Vocational identity has been demonstrated to exert an influence on long-term motivation and activity at work. Furthermore, it has been shown to enhance the sense of responsibility and quality awareness.

Approach: In the study two research questions will be addressed: Which relationships exist between vocational identity and other dimensions, such as job satisfaction and the meaningfulness of own work? Moreover, how can schoolteachers and/or in-company instructors (systematically) promote vocational identity in VET? The aim of this study is to provide support for the development of vocational identity in VET. To achieve this objective, a series of practical suggestions and advice are provided.

Findings: The study is based on two data sets derived from quantitative surveys of a total of 645 apprentices engaged in industrial-technical apprenticeships and healthcare occupations. There are highly significant correlations between vocational identity and job satisfaction, as well as with the meaningfulness of own work. Additionally, there are no significant differences between apprentices in industrial-technical occupations and those in the healthcare sector in terms of vocational identity and job satisfaction. Therefore, there is a connection between job satisfaction and vocational identity.

Conclusions: Vocational identity appears to be correspondingly important and early support in VET would appear to be appropriate accordingly. The presented strategies are based on the results of empirical studies and further scientific literature. It will include recommendations for teachers and instructors on how to promote vocational identity. One central aspect is the creation of optimal learning and working environments. Another pathway is the use of guided reflection exercises.

Keywords

vocational identity, school-based VET System, dual VET system, VET teacher, quantitative research approach

1 Introduction and theoretical background

The development of vocational identity is a central target in VET and is of particular importance for the career development of employees. Considering the longstanding tradition of scientific analyses of vocational education and training, which have consistently considered vocational identity as a characteristic of successful VET, the present moment can be seen as a period of "renaissance" in this regard. Vocational identity is to be regarded as a central topic or



target in VET and a relevant pattern for analysing current discourses on the recruitment of skilled workers and the reduction of apprenticeship drop-outs.

The literature contains a variety of theoretical operationalizations, yet there is no uniform scientific definition of "vocational identity". Nevertheless, the development of a vocational identity is a key aspect of VET, particularly given the substantial contribution that a highly developed vocational identity makes to the development of occupational competence. Therefore, it is a requirement to be able to carry out vocational challenges competently and independently (Thole, 2021; Heinrichs et al., 2022).

Rauner (2017) defines vocational identity as follows: "Vocational identity is the result of a development process that is intimately linked to the development of occupational competence. Strictly speaking, the development of vocational identity is a dimension of occupational competence development" (p. 682).

The degree of vocational identity depends on the occupation and apprenticeship, especially since occupations have different identification potentials, i.e. indicators of the attractiveness of an occupation. This means that development is not continuous. Rather, it requires the active engagement of the individual subject with his or her individual occupational environment. Consequently, the development of vocational identity is based on an interaction with the environmental conditions (within the context of the apprenticeship), in the sense of a subjective experience of vocational identity, which is reinforced and supported by the individual's self-reflective processes (Rauner, 2017; Thole, 2021; Heinrichs et al., 2022).

Those who have developed a strong emotional attachment to their occupational role are often willing to accept job-related disadvantages, such as low pay or shift work, because of their chosen profession. In a positive understanding, it can be expected that a robust vocational identity can lead to enhanced job satisfaction and superior performance in everyday working life. Consequently, vocational identity can have an influence on long-term motivation and activity at work, as well as increasing the sense of responsibility and quality awareness (Rauner, 2017). There are compelling reasons why companies and VET schools should be interested in fostering the vocational identity of their apprentices at an early stage. In conclusion, two research questions will be analyzed:

- Which relationships exist between vocational identity and other dimensions such as job satisfaction, or meaningfulness of own work?
- How can schoolteachers and/or in-company instructors (systematically) promote vocational identity in VET?

The aim of this study is to contribute to the support and the development of vocational identity in VET. To achieve this objective, practical suggestions and advice are provided on how to promote vocational identity in apprenticeships in companies and VET schools. It is anticipated that the results and recommendations will be applicable to a range of European countries with varying approaches to VET, including those with a school-based VET system, a dual VET system or a "training on the job" approach. The aim is to provide information on how the development of vocational identity in VET can be promoted in different contexts or systems. The transfer should succeed on the findings of two studies conducted in Germany. These studies were carried out in various schools and companies in different VET sectors.

Apprentices from the industrial-technical apprenticeships learn their occupations in the dual VET system in Germany, while those in healthcare sectors are assigned to the school-based part of the German VET system. Nevertheless, both groups have both school-based and company-based or practical learning time and learning locations. Apprentices in industrial-technical occupations have a contract with the respective company, whereas those in the healthcare sector are registered at a vocational school in Germany with a focus on one or more

healthcare professions (“Berufsfachschule”). Most of these schools are financed and managed by healthcare institutions and not by the state. In the past, these schools often levied tuition fees on their apprentices. However, during the last recent years, apprentices have also been remunerated with a salary for their apprenticeships. Thus, nowadays, both groups receive a salary. A historically established distinction may persist in the relationship with the company. Apprentices in industrial-technical occupations are typically regarded as employees, whereas apprentices in healthcare are often (and incorrectly) perceived as pupils. This distinction is certainly a little special in Germany and at the same time rare. It also has an influence on the perception of learners (from the outside as well as on their self-perception. The (subjective) importance attached to the two learning locations is also not equivalent. How this can potentially influence autonomy and satisfaction, for example, will be explored further.

2 Methods and results

The study is based on two data sets derived from quantitative surveys, which have been combined for the purposes of this presentation. A total of 645 apprentices in industrial-technical apprenticeships and healthcare occupations (both without academic education) were included. The two occupational branches were each surveyed individually in two different studies, each with different research questions. However, the measuring instruments used here were identical for both studies. This meant that the two data sets could be combined regarding these scales. The surveys were also conducted in different years and in different regions in Germany (north-east and south-west).

The respondents were taken from all three years of apprenticeship. Participation was entirely voluntary. Various dimensions were used, which were taken from the research literature (like Rauner, 2017; or Barghorn, 2010), which had previously demonstrated satisfactory quality standards. The main scales are:

- Vocational identity ($\alpha_{(627)}=.770$; $k=6$; example item: "I like to tell others what occupation I am learning.")
- Autonomy ($\alpha_{(628)}=.822$; $k=3$; example item: "I can decide for myself how I proceed in my work.")
- Job satisfaction ($\alpha_{(624)}=.908$; $k=4$; example item: "In general, I like working here.")
- Meaningfulness of own work ($\alpha_{(628)}=.822$; $k=3$; example item: "The job I do is important to me.")

Figure 1 presents the results of the mean value comparison between the two vocational sectors for the four scales of vocational identity, autonomy, job satisfaction, and the meaningfulness of own work.

Figure 1

Results of the mean value comparison of the vocational sectors

	Industrial-technical (n=145)	Healthcare (n=472)
VI	4.14	4.19
AU	3.55	3.26
JS	4.00	4.04
MOW	3.95	4.60

Note. VI - vocational identity, AU - autonomy, JS - job satisfaction, MOW - meaningfulness of own work

The table shows a comparison of the descriptively determined mean values. A subsequent t-test shows that there are highly significant differences in two dimensions. The results show that there are no significant differences in the dimensions of vocational identity and job satisfaction between apprentices in industrial-technical occupations and those in the healthcare sector. On the other hand, the apprentices in industrial-technical occupations perceive and report significantly more autonomy in their daily work, while those in healthcare sectors consider their work to be significantly more meaningful than the comparison group. The higher value in autonomy can possibly be explained by the greater importance and connection to the company as a learning location, as learners in the healthcare sector were (at least in the past) more likely to be regarded and described as pupils. The high meaning of their work can potentially be explained by their work, where they care for patients who are ill or injured.

In Figure 2, the results of the mean value comparison of the apprenticeship years (without differentiating between the two occupational sectors) are written.

Figure 2

Results of the mean value comparison of the apprenticeship years

	1st Year (n=225)	2nd Year (n=305)	3rd Year (n=82)	Total (n=612)
VI	4.29	4.13	4.10	4.18
AU	3.33	3.30	3.44	3.33
JS	4.18	3.96	3.91	4.03
MOW	4.61	4.32	4.42	4.44

Note. VI - vocational identity, AU - autonomy, JS - job satisfaction, MOW - meaningfulness of own work

The mean values for vocational identity decreased slightly across all apprentices surveyed over the three years of apprenticeship, with a more pronounced reduction between the first and second years of the program.

The experience of autonomy is nearly constant during the first two years, gradually increasing during the third year.

Furthermore, there is a decline in job satisfaction over the course of the three-year apprenticeship, with a particularly pronounced reduction occurring between the first two years of the apprenticeship.

At the outset of the apprenticeship, the meaningfulness of one's work is perceived as the most valuable. This perception declines during the second year but then slightly increases during the third year.

Finally, it should be noted that the three years of apprenticeship (cross-section here) have different numbers of respondents. With 82 respondents, the third year has substantially fewer than the other two years of apprenticeship. It is also possible that this could have an impact in this context.

The results of the correlation analysis between the four scales are presented in Figure 3.

The highest significant correlation exists between vocational identity and job satisfaction. The correlation between vocational identity and the meaningfulness of own work, as well as the correlation between job satisfaction and the meaningfulness of own work, also attain high values. The correlations with autonomy are lower in comparison yet remain statistically significant.

Figure 3

Results of the correlation analysis; n=616.

	VI	AU	JS	MOW
VI	1			
AU	.172**	1		
JS	.668**	.271**	1	
MOW	.532**	.127**	.484**	1

Note. VI - vocational identity, AU - autonomy, JS - job satisfaction, MOW - meaningfulness of own work; ** = very significant ($p \leq 0.01$)

3 Classification of the results**3.1 Discussion**

The results can also be compared to those of the Norwegian survey by Johannesen et al. (2019), such as the relationship between a strong vocational identity and a substantial interest in the further development of one's professional competence.

Aspects such as the individual's experience of autonomy and the perception that their own work is highly meaningful appear to be relevant for apprentices. There is also a connection between job satisfaction and vocational identity. Taking both these empirical results as well as further scientific literature (e.g. Rauner, 2017; Thole, 2021, 2023) into account, recommended strategies will be presented on how teachers and instructors in schools and companies can promote vocational identity during apprenticeships.

One of the most crucial aspects of promotion is the creation of optimal learning and working environments in both learning locations. This includes recognition and appreciation of the apprentices' performance and their commitment, as well as opportunities for the development of skills and attitudes, and a variety of tasks and work activities (in the sense of the entire occupational range). It would be beneficial to implement the transfer of responsible work orders (ideally congruent with the apprentices' own interests), which are to be completed independently and on their own responsibility. This means some specific allocation of tasks to the apprentice, which they can work on independently for their own learning and development success.

Regarding the school learning location, the importance of the teacher should be emphasized. They symbolize the occupation through their own vocational experience and the framing of the discourse in lessons. If they speak favourably about the occupation and thus reinforce its reputation of the occupation, this supports the development of a positive vocational identity. Furthermore, school lessons can provide a meaningful accompaniment to the experiences from the company workplace through guided reflection exercises.

3.2 Limitations

It is important to note that the results are based on self-reports in a cross-sectional survey. Furthermore, it cannot be excluded that an effect of social acceptability or social desirability is encouraged or confirmed. Likewise, it cannot be excluded that some apprentices may overestimate their own abilities. Due to all these limitations, as well as the fact that no follow-up data or follow-up surveys were collected, the results are ultimately not suitable for generalization.

It should also be noted that the two studies and data sets combined here were collected in two different regions and federal states in Germany. Therefore, it cannot be excluded that certain differences or potential discrepancies can be justified. Hence, the comparison of two data

sets from two different studies is never completely free of contradictions, as in some cases different main topics were previously addressed.

It is, therefore, unclear whether the findings from Germany can be transferred to the European context and to what extent they can be applied. For the interpretation, it is also limiting to consider that there are further factors that can influence the development of the dimensions measured here, such as vocational identity or job satisfaction. The work presented here only considers quantitative data; to achieve more detailed analyses, additional qualitative surveys are needed.

4 Proposals and creative ideas for developing vocational identity

4.1 Creation of optimal learning and working environments

An important aspect of promoting vocational identity is the creation of optimal learning and working environments, both at school and in the workplace. This includes recognition and appreciation for the achievements and engagement of the apprentices, as well as opportunities for the development of skills and attitudes and the variety of vocational tasks and work activities (in the sense of the entire range of an occupation). It is recommended that the delegation of responsible work tasks, which are ideally congruent with the interests of the apprentices, be offered to them (Rauner, 2017; Thole, 2021). These tasks should be completed independently and, on the apprentices', own responsibility.

School teachers, as well as in-company instructors or practice instructors in the healthcare sector, have a very central function in the development of vocational identity. They are (consciously or subconsciously) role models for the occupation. Their image of the relevant occupation is subsequently transferred to the apprentices. Accordingly, the suggestions for the school learning location should also be discussed for the practice learning location as well in companies.

Therefore, it can be noted that the design of work and learning environments should be oriented towards the personal needs, goals, preferences, and interests of the apprentices in the most optimal manner. This consideration can be supported by reference to the theoretical assumptions of the self-determination theory as set forth by Deci and Ryan (1993, 2008). According to this theory, learning (and working) is particularly beneficial and intrinsically motivated when the individual's needs for social integration, experience of autonomy, and experience of competence are satisfied and provided for.

It is also important for teachers and instructors in schools and companies to ensure comprehensive transparency regarding the tasks and contents to be learned. For example, it is beneficial for apprentices to know and understand what the purpose of a task is and to what extent this also represents a contribution made by the individual to the overall company context and benefits. This includes consciously organized, cooperative working in the company. The development of a vocational identity can be facilitated by encouraging individuals to engage in tasks and to experience success in their everyday work roles (Rauner, 2017; Thole, 2021).

4.2 Assistance through reflection

Regarding the school-based learning environment, the importance of the teacher should be emphasized, as they symbolize the occupational profile through their own experiences from practical work and framing the discourse in the classroom (e.g. experience reports from practical work placements or in the companies). If the teacher speaks positively about the occupational profile, thereby enhancing the reputation of the occupation, this supports the development of the vocational identity. The teacher can also exert influence through appreciation and recognition directed towards individuals, their work, and their experience. In addition, school lessons

can provide meaningful support for experiences and adventures in the company (within the dual VET system in Germany) through guided reflection exercises.

Teachers could, for example, use an experienced discrepancy or an experienced conflict from the company or practical placement as a learning opportunity within the classroom setting. By designing self-reflection processes within vocational education and training, both a continuous reappraisal and the development of new solutions and patterns of interpretation for dealing with the experiences of the learning location practice/company can succeed. A critical examination of experiences and adventures thus enables apprentices to develop new options for action (Thole, 2021).

Finally, it should be noted that both teachers in schools and company instructors or practice instructors in the healthcare sector are well-positioned to facilitate conscious self-reflection processes, whether in the context of individual tasks or group discussions held within the classroom. A clear, open and critically reflected analysis and discussion of experiences during the apprenticeship is extremely important. Especially as apprentices would be left to their own devices in the absence of opportunities or options for supported reflection. In addition, as already mentioned, continuous, reflective processing enables the development and identification of new solution options and pathways. To support ongoing reflection during the (usually three-year) VET program in Germany, the implementation of learning diaries or mentoring programs could prove beneficial, in addition to the provision of individual guidance sessions. Another idea could be to consciously thematise one's own perspective, expectations, and past vocational and academic biographical career development (Rauner 2017; Thole 2021; Heinrichs et al. 2022).

5 Conclusion and prospects

Nevertheless, there are different restrictions, guidelines, conditions and possibilities between the two learning locations as well as between teachers and instructors regarding the potential achievement of the aim of promoting and developing vocational identity. It is therefore not a question of "playing off" the two learning locations against each other, but rather of providing proposals for discussion. Some of the ideas presented address both learning locations, some only one of the two learning locations. However, the common aim of both learning locations should be the promotion and development of vocational identity.

In conclusion, it can be summarized that, when feasible, apprentices should preferably receive individual guidance and support throughout the apprenticeship. They need support, reflection, and strategies to handle the challenges of everyday working life.

The relevance of developing vocational identity for the individual, as well as for teachers and instructors, was also highlighted and discussed. Vocational identity can be measured quantitatively and promoted and developed; (concrete) approaches exist for both learning locations, the school, and the company.

Regarding the ongoing discourse from a VET perspective, the empirical findings presented here should also be regarded as a stimulus for the development of further research questions. The instruments utilized for data collection in the questionnaire have demonstrated their efficacy in the research process. In the future, it is conceivable that pilot projects could be carried out in a longitudinal study (preferably in a control group design) to scientifically monitor pedagogical interventions to promote vocational identity among apprentices and evaluate their developments.

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Biographical notes

Dr Philipp Struck is a professor at the Catholic University of Applied Sciences Mainz, Germany. His lectures and research interests focus on VET teacher education, analysis of VET processes, career choice and career guidance, special education and social education in VET.

Syverstad, M., & Kristiansen, A. (2024). Holistic professional competence, with life skills on the agenda. In C. Nägele, B. Esmond, N. Kersh, & B. E. Stalder (Eds.), *Trends in vocational education and training research, vol. VII. Proceedings of the European Conference on Educational Research (ECER), Vocational Education and Training Network (VETNET)* (pp. 106–114). VETNET.
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Holistic Professional Competence, with Life Skills on the Agenda

Syverstad, Marie

mariesy@oslomet.no, OsloMet – Oslo Metropolitan University

Kristiansen, Aina

ainakris@oslomet.no, OsloMet – Oslo Metropolitan University

Abstract

Context: In 2020, Norway introduced new curricula that emphasized three cross-disciplinary themes: 1.) Health and Life Skills, 2.) Democracy and Citizenship, and 3.) Sustainable Development. This action research project, "Holistic Vocational Competence with Life Skills on the Agenda," aims to integrate life skills into vocational education to better prepare students for the dynamic demands of the labor market.

Approach: The project utilizes an action research methodology involving collaborative cycles of planning, action, observation, and reflection. Data collection methods include classroom observations, interviews, and logs. Teachers and researchers work together to develop, implement, and refine teaching practices that integrate life skills into vocational training.

Findings: Initial findings indicate that integrating life skills into vocational education enhances student engagement and competency development. Teachers report improved teaching practices and greater student participation. Preliminary data shows a positive impact on students' self-awareness, critical thinking, decision-making, and problem-solving skills.

Conclusions: The project aims to demonstrate that life skills can be effectively integrated into vocational education, leading to holistic student development and enhanced preparedness for future career challenges.

Keywords

action research, democratic processes, life skills, holistic professional competence

1 Introduction

In the autumn of 2020, new curricula were introduced in Norway that, in addition to subject-specific content, emphasize three cross-disciplinary themes: 1.) Health and Life Skills, 2.) Democracy and Citizenship, and 3.) Sustainable Development. According to the overarching part of the curriculum, these themes are to be integrated into teaching across subjects where relevant (Ministry of Education, 2017, p. 13). These cross-disciplinary themes are not separate school subjects; instead, they are to be woven into comprehensive assignments, particularly in vocational education. This paper focuses on how Health and Life Skills encompass more than just mental health.

There is significant interest in these themes in secondary education, but there is a lack of research on their integration into holistic vocational training. This gap is the impetus for this planned action research set to begin in autumn 2024. The researchers will justify the need for further study within this field based on previous findings and elaborate on the chosen research approach. This paper will outline the background of the project, explore the theme of life skills



in education, discuss the methodology of action research and the chosen approach, and provide a preliminary project outline with methodological and theoretical justifications.

This action research project is grounded in Stortingsmelding 28 (Meld. St. 2015–2016). Stortingsmelding 28 (2015-2016), titled "Subjects – Specialization – Understanding: A Renewal of the Knowledge Promotion," is a white paper from the Norwegian government to the Parliament, focusing on reforming the Norwegian primary and secondary education system. The project is also grounded in findings from another project, our first in the LUSY project (OsloMet, 2024). LUSY is short for *Lærerutdanningsskoler og lærerutdanningsbedrifter i Yrkesfaglærerutdanningen* in Norwegian, or Teacher Education Schools in Vocational Teacher Education in English. The LUSY project addresses the development of an organizational theoretical and didactic model for collaboration between educational institutions and the field of practice, and the challenges and needs this involves. Our first project highlights the need for further research and collaboration across educational levels, universities, and secondary schools. The summary below provides an insight into our first LUSY project and its background, which aims to investigate how teachers work with life skills in schools through vocational pedagogical development work (*Yrkespedagogisk Utviklingsarbeid - YPU*). Using an action research method, we aim to contribute to changes in practice and improvements in teaching.

The theme of Public Health and Life Skills in schools can have varied meanings and be understood in many ways. It can be related to what students should learn about the topic within a specific school subject and to perspectives on their own health and managing their own lives, or it can include a more general societal perspective. This article examines how teachers work with the theme of life skills in schools and how vocational pedagogical development work (YPU) has contributed to changes in practice. The empirical basis is qualitative methods to provide a better and deeper understanding of teachers' work with this theme in education (Johannessen et al., 2016). By analyzing exam responses from the YPU study, this study seeks insight into how the interdisciplinary theme of Public Health and Life Skills is practiced in vocational training. Teachers have worked independently on their projects, and the workplace has served as a meeting place for sharing experiences and developing competence. We researchers have facilitated dialogue-based action research processes and guided teachers through the YPU work. (Kristiansen et al., 2024).

Both studies are sub-projects in the action research project "Teacher Education Schools in Vocational Teacher Education" (LUSY Project) – OsloMet. The theoretical foundation in LUSY has a pragmatic and critical perspective on learning, education, and research, which is reflected in this article, supplemented with perspectives related to life skills.

Life skills as a curricular focus are also emphasized as a fundamental competence by WHO (1994), including cross-disciplinary skills like self-awareness, empathy, critical thinking, creative thinking, decision-making, problem-solving, interpersonal relationships, effective communication, coping with stress, and managing emotions (Danielsen, 2021, p. 158-159). Teachers and researchers are keen to develop more practical knowledge in this area, aiming to help students manage future work life (Kristiansen et. al., 2024). The development will involve various trials of pedagogical and vocational didactic methods in vocational training, aimed at facilitating life skills within holistic vocational tasks. Society in general needs future employees who possess the ability to manage their personal lives and workdays as an essential part of their overall vocational competence.

Research question: How can the theme of life skills be integrated into vocational education to develop socially relevant, holistic vocational competence?

1.1 Background

The Norwegian educational reform that began in 2020 highlights the importance of integrating life skills into the curriculum. Life skills go beyond academic knowledge, encompassing abilities essential for personal development and active participation in society. The Ministry of Education (2017) outlines that these skills are crucial for students to navigate the complexities of modern life, including personal well-being, social relationships, and professional responsibilities.

The reform identifies three main cross-disciplinary themes: 1.) Health and Life Skills, 2.) Democracy and Citizenship, and 3.) Sustainable Development. These themes are designed to be embedded across various subjects, reflecting the interconnected nature of contemporary challenges. Health and Life Skills are crucial for fostering resilience, adaptability, and emotional intelligence among students. Prebesen & Hegstad (2017) refer to the importance of students in school developing knowledge that helps them handle both successes and challenges in everyday life in order to master a future professional life.

1.2 Previous research and current gaps

Despite the acknowledged importance of life skills, there is limited research on how these can be effectively integrated into vocational education. Vocational education focuses on preparing students for specific trades and professions, traditionally emphasizing technical skills over broader competencies. However, the dynamic nature of today's labor market requires a more holistic approach to education, where life skills are given equal importance. Previous research indicates that Vocational education in schools must be relevant to students' future career choices so that they see the purpose and meaning in what they are learning. A holistic approach to developing vocational competence is essential for students to develop social skills as a key competence in all professions and trades (Sylte, 2022). The action research project "Holistic Vocational Competence with Life Skills on the Agenda" aims to address this gap. Preliminary findings from the YPU reports through the LUSY project indicate a strong need for incorporating life skills into vocational training to better prepare students for the work life (Kristiansen et. al. 2024).

1.3 Relevance to vocational education

Vocational education in Norway is undergoing significant transformation to align with the changing demands of the labor market. Employers increasingly seek employees who are not only technically proficient but also possess strong life skills, such as communication, teamwork, and problem-solving abilities. These competencies are essential for adapting to the evolving nature of work and contributing effectively to organizational goals. Integrating life skills into vocational education can enhance students' readiness for work life, providing them with a competitive edge. Moreover, it can contribute to their overall personal development, enabling them to lead fulfilling lives both professionally and personally. Relevant vocational education involves developing the skills to manage one's own life and various life transitions in general, not just technical and vocational skills. An inclusive classroom and school environment is important for students to experience security, develop their identity, and build self-confidence (Haaland & Nilsen, 2020, p. 73). In this context, the school setting will serve as a meeting point for an education that upholds principles of learning, development, and personal formation (Ministry of Education, 2017).

2 Theoretical framework

Action research is a participatory and iterative methodology that seeks to address practical problems through collaborative inquiry and reflection. Kemmis (2009) describes action

research as a practice-based approach that emphasizes the active involvement of practitioners in the research process. This methodology is particularly suited for educational settings, where the goal is to improve teaching and learning practices through systematic inquiry.

Stenhouse (1975) introduced the concept of "Teacher Research," emphasizing teachers as active participants in research to improve their own practices. This approach challenges the traditional view of teachers as passive recipients of pedagogical theory, instead empowering them as researchers in their classrooms. Elliott (1991) further develops this concept by focusing on action research as a method for teacher development, advocating for systematic inquiry and reflection to understand and enhance teaching practices.

As a methodological approach, action research focuses on combining action and reflection in a cyclical process. According to Kemmis (2009), action research is a practice-based approach that actively involves participants in the research process. This involves a dynamic interaction between planning, action, observation, and reflection. A key principle in action research is democratic participation. This principle emphasizes the importance of including all relevant actors in the research process to ensure that different perspectives and experiences are heard and valued. Hiim (2020) stresses that it can be challenging to navigate the various directions within action research, but it is crucial to recognize the significance of democratic participation to achieve meaningful and sustainable changes.

Dialogue and reflection are fundamental components of all action research. Kemmis (2009) points out that dialogue is a powerful tool for promoting collaboration, reflection, and mutual understanding among participants. Through dialogue, researchers and participants can jointly construct knowledge, challenge assumptions, and develop innovative solutions to complex issues. Participant observation is a method that allows researchers to gain deep insights into the context being studied. This involves researchers being present in the classroom to observe teaching practices, interactions between teachers and students, and classroom dynamics. According to Hiim (2020), participant observation captures both the explicit and implicit, which is crucial for understanding the complex social processes influencing learning and interaction. Interviews are another central method in action research, providing depth in understanding participants' perspectives. By conducting interviews with both teachers and students, researchers can gain insight into their experiences, opinions, and reflections on the studied topics. This promotes open dialogue and allows for reflection and discussion around observations made during participant observation.

Dialogue conferences are a methodological approach that promotes equal communication and interaction among participants. Gustavsen (1992 in Hiim, 2020) describes dialogue conferences as meeting places where all participants can speak, and emphasis is placed on listening to each other. This helps develop a common understanding of challenges and opportunities and plan and implement measures together.

A. L. Sylte's article (2020) "Predicting the Future Competence Needs in Working Life: Didactical Implications for VET" delves into the challenges facing professional and vocational education, particularly the lack of alignment between educational content and the ever-changing demands of the labor market. The study highlights two primary challenges: the perceived inadequacy in the relevance and coherence between the curriculum and the skills required in the modern labor market. The research emphasizes the importance of anticipating future competence needs in the labor market to ensure that vocational education programs adequately prepare students for work life. By predicting and adapting educational content to the continuously evolving demands of working life, vocational schools can enhance the relevance of their training. This proactive approach aims to bridge the gap between classroom instruction and real-world application, equipping students with the skills and knowledge necessary for their future careers. Furthermore, Sylte's work underscores the didactical implications of addressing these challenges in vocational education. By recognizing the need for a more responsive and forward-

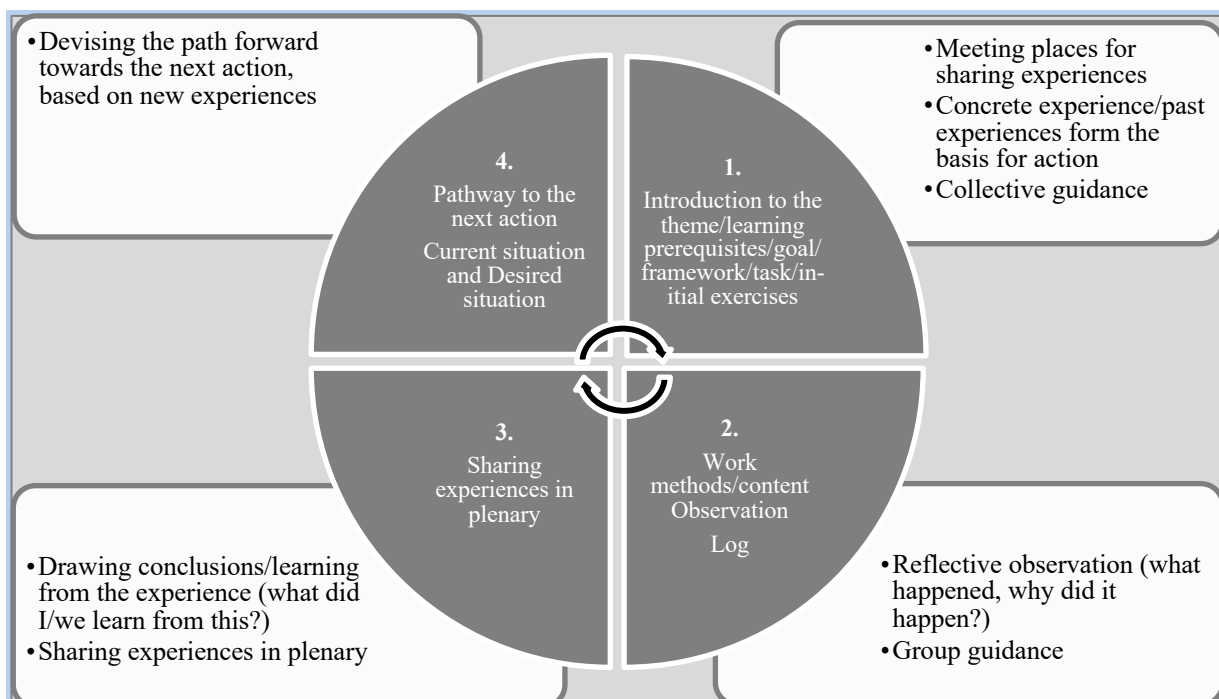
looking approach to curriculum development, educators can better adapt teaching methods and content to meet the dynamic demands of the modern workplace. This shift towards a more predictive and adaptable educational model can lead to improved student outcomes, increased employability, and greater overall satisfaction with vocational training (Sylte, 2020).

McNiff (2014) and Bourdieu (2023) contribute to the understanding of reflexive practice by emphasizing the importance of systematic reflection in teachers' work. McNiff argues that through reflection on and evaluation of their own actions, teachers can develop a deeper understanding of the complexity of teaching. This process allows teachers to critically assess their methodologies, identify areas for improvement, and adapt their strategies to better meet the needs of their students. By engaging in continuous reflection, teachers can become more effective and responsive educators. Bourdieu points out that teachers' actions and decisions are also shaped by social and cultural contexts, which must be considered in reflexive practice. He highlights that the educational environment is influenced by various socio-cultural factors, including power dynamics, institutional structures, and cultural capital. Teachers' practices are not isolated but are interwoven with the broader social fabric, and understanding this interconnectedness is crucial for meaningful reflexive practice. By acknowledging these influences, teachers can gain insight into how their own backgrounds and biases impact their teaching and how they can navigate and address these complexities to create more equitable learning experiences.

To ensure validity and reliability in research, it is important to use systematic methods for data collection and analysis. Kolb's learning cycle (1984) and the didactic relational model (Hiim & Hippe, 2001; Sylte, 2016) are tools that can help researchers structure experience sharing and evaluations, see Figure 1. Through systematic reflection and documentation, we can achieve a high degree of validity in research, which is crucial for drawing reliable conclusions.

Figure 1

Own visual model inspired by Kolb's (1984) learning cycle and the didactic relational model (Hiim & Hippe, 2001). The inner core of the circle illustrates how the teachers worked in their teaching. The outer core of the circle illustrates how we, as university researchers, worked in the four cycles.



By combining democratic participation, dialogue, participatory observation, and interviews, as well as the use of dialogue conferences and reflexive practice, we can develop a deeper understanding of the complex processes that influence learning and teaching. By applying these theoretical frameworks in our action research project, we can contribute to improving teaching practices and the learning environment in schools, as well as better preparing students for future challenges in work life.

Aakernes et al. (2023) describe how self-studies through writing and analyzing logs can contribute to professional development. This allows teachers to reflect on their practice, identify areas for improvement, and develop new insights and understanding. By promoting collaborative self-study, we can improve practice while contributing to the broader goals of the action research project.

2.1 Development of holistic vocational competence with focus on life skills

Action research can be a method for implementing curricula and developing teachers' instruction, but it requires careful planning, collaboration, and engagement from all involved parties. Schools can use action research to develop their teaching practices and implement national curricula. By involving teachers and students in the process, schools can create a more relevant and engaging curriculum that incorporates life skills into vocational education. Participation in this process can enhance student involvement and engagement in vocational training. "Life skills are about understanding and being able to influence factors that are important for mastering one's own life" (Ministry of Education, 2017, p. 13).

The core of the project will focus on working theory and practice alternately and continuously to ensure the development of holistic vocational competence. Developing holistic vocational competence must be seen in relation to the whole person and the vocational competence itself. Holistic learning provides an understanding of how we learn and develop in interaction with our surroundings and other people (Gulbrandsen & Forslin, 1997). The school as a learning environment can facilitate life skills at the individual level, but also from a societal and social perspective (Meld. St. 28 (2015-2016, p. 39). Life skills, as a cross-disciplinary competence, will be highlighted as a competence developed and applied across different subjects (Danielsen, 2021, p. 155). The project's aim is to advance the teaching profession through didactic experiments that facilitate life skills within holistic vocational tasks. Education where students develop their self-image and secure their own identity, can help them be better prepared for future professional life and tasks. Life skills involve understanding how individuals can influence factors that affect their ability to manage their own lives. The focus should be on helping students handle successes and challenges, as well as personal and practical issues in the best possible way. Holistic vocational competence involves developing skills in a specific vocational field and building the ability to manage one's life and navigate various transitions in daily life.

3 Expected outcomes

The goal of the action research will be to provide examples from teachers' experiences on how life skills can be integrated into comprehensive, relevant tasks in vocational education. Life skills can be facilitated in upper secondary school and highlight some tools/trials that can provide relevant competencies for students' future careers. Trials will demonstrate a practice that can help to show how upper secondary school can systematically support students in developing the competence to handle a future working life. The expected results of this action research project include both immediate and long-term outcomes. These outcomes will be evaluated through continuous data collection and analysis, with adjustments made based on findings throughout the project.

The integration of life skills into vocational education necessitates a significant enhancement in teaching practices. Teachers are required to focus on developing and refining their

methods to effectively merge life skills with vocational training. This involves creating comprehensive lesson plans and engaging activities that seamlessly incorporate life skills, ensuring alignment with the vocational training objectives. By adopting this approach, teachers aim to provide a more holistic education, preparing students not only for professional success but also for personal growth. This strategy involves a meticulous planning process where teachers design lessons that integrate life skills such as communication, teamwork, and problem-solving into vocational subjects. For instance, a lesson on automotive repair might include teamwork exercises or customer service simulations, thereby embedding essential life skills into the technical curriculum. This approach ensures that students receive a well-rounded education, equipping them with the necessary tools to succeed in various aspects of their lives.

3.1 Increased student engagement

A notable immediate outcome of integrating life skills into vocational education is the anticipated increase in student engagement. When students participate in activities that are directly relevant to their personal development and future careers, they are more likely to be invested in their learning. By making the curriculum more meaningful and applicable to real-world situations, students find the educational experience more relevant and motivating. This increased engagement is expected to transform the classroom atmosphere into a more dynamic and interactive environment. Students who see the direct benefits of their education in their daily lives are more likely to participate actively, retain information better, and apply their knowledge in practical settings. For example, incorporating financial literacy into a business course not only teaches students about managing finances but also engages them by showing the direct application of these skills in their future careers.

3.2 Improved student competencies

The integration of life skills into vocational education aims to enhance student competencies in several key areas, including self-awareness, empathy, critical thinking, decision-making, and problem-solving. These competencies are crucial for personal and professional success in today's complex world. To measure the effectiveness of this integration, a combination of pre- and post-implementation surveys will be utilized, providing quantitative data on the improvement of these skills. Additionally, qualitative feedback from both students and teachers will offer valuable insights into the practical benefits and challenges of the program. This comprehensive evaluation ensures that the integration of life skills meets educational standards while supporting the students' overall growth. For instance, students might participate in role-playing exercises to develop empathy or engage in group projects to enhance their teamwork and problem-solving abilities.

3.3 Holistic student development

In the long term, the integration of life skills into vocational education is expected to foster holistic student development. This development encompasses a broad set of competencies that prepare students for both professional and personal success. By combining technical skills with essential life skills, students will be better equipped to navigate the complexities of modern life and work. The holistic approach ensures that students are not only proficient in their chosen vocations but also possess the necessary life skills to thrive in various situations. For example, a student trained in culinary arts will not only master cooking techniques but also develop skills in time management, customer service, and teamwork, making them well-rounded professionals.

3.3 Sustainable teaching practices

Another significant long-term outcome is the establishment of sustainable teaching practices. The project aims to create a culture of continuous improvement among teachers, encouraging them to adapt and refine their methods even after the initial research period. By involving teachers in the research process, the project fosters a sense of ownership and commitment to the integration of life skills. This sustainable approach ensures that the benefits of the project extend beyond its duration. Teachers will be equipped with the tools and knowledge to continuously improve their practices, leading to lasting changes in vocational education. For instance, teachers might regularly attend professional development workshops focused on integrating new life skills into their curricula.

3.4 Model for other schools

The methodologies and findings developed through this project can serve as a model for other vocational schools. By documenting the process and outcomes, the project provides valuable insights and practical strategies that can be implemented in other educational settings. This dissemination of knowledge can help other schools replicate the success of the project, leading to broader improvements in vocational education. For example, the project might produce detailed guides and case studies showcasing successful integration strategies, which can be shared with other schools. These resources can help educators understand the benefits and implementation steps of integrating life skills into vocational education.

3.5 Informed educational policy

Finally, the results of this research have the potential to inform educational policy at both local and national levels. By demonstrating the benefits of integrating life skills into vocational education, the project can advocate for policy changes that support the holistic development of students. Policymakers can use the project's findings to make informed decisions about curriculum design and educational priorities. For instance, evidence from the project could support the inclusion of mandatory life skills training in vocational programs, ensuring that all students receive a comprehensive education. By influencing policy, the project can contribute to systemic changes that benefit a larger number of students across various educational contexts.

4 Conclusion

Integrating life skills into vocational education aims to better prepare students for today's complex job market. This project, "Holistic Vocational Competence with Life Skills on the Agenda," looks to show how adding life skills to vocational training can help students develop both personally and professionally. Though the project is still in its early stages, we expect positive results. We believe that teaching life skills will increase student engagement and help them develop important abilities like self-awareness, empathy, critical thinking, decision-making, and problem-solving. These skills are essential for both work and personal life. The project also aims to fill a gap in vocational education by showing how life skills can be integrated into everyday tasks. We hope this approach will improve teaching methods and create a more engaging learning environment. Additionally, we aim to encourage a culture of ongoing improvement among teachers.

In summary, this project emphasizes the importance of combining life skills with technical skills in vocational education. This holistic approach will better equip students for the challenges of the modern workforce and help them lead successful and fulfilling lives. The outcomes of this research could guide educational policy and serve as a model for other vocational schools, leading to wider improvements in vocational education.

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Biographical notes

Dr Aina Kristiansen is an assistant professor at OsloMet with an interest in the research area of collaboration between schools, workplaces, and universities. She teaches vocational teacher education and career guidance.

Dr Marie Syverstad is an assistant professor at OsloMet. She teaches practical pedagogical education for vocational subjects and has a research interest in improving vocational education and teacher training.

Papers from Symposia

Skills shortage and recruitment of skilled workers in the EU countries: Development of local human capital or immigration?



Tütlys, V., Gessler, M., Saniter, A., Kühn, K., Winterton, & Kaminskienė, L.(2024). Skills shortage and recruitment of skilled workers in the EU countries: Development of local human capital or immigration? In C. Nägele, B. Esmond, N. Kersh, & B. E. Stalder (Eds.), *Trends in vocational education and training research, vol. VII. Proceedings of the European Conference on Educational Research (ECER), Vocational Education and Training Network (VETNET)* (pp. 116–133). VETNET.
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Skills Shortage and Recruitment of Skilled Workers in the EU Countries: Development of Local Human Capital or Immigration?

Tütlys, Vidmantas

vidmantas.tutlys@vdu.lt, Vytautas Magnus University

Gessler, Michael

mgessler@uni-bremen.de, ITB Bremen University

Saniter, Andreas

asaniter@uni-bremen.de, ITB Bremen University

Kühn, Kristina

kristina.kuehn@uni-bremen.de, ITB Bremen University

Winterton, Jonathan

j.c.winterton@leeds.ac.uk, Leeds University Business School

Kaminskienė, Lina

lina.kaminskiene@vdu.lt, Vytautas Magnus University

Abstract

Context: Skill mismatches and especially skill shortages present significant challenges for the socio-economic development of many EU countries and neighbouring developed economies in the conditions of the post-pandemic recovery and degrading global geopolitical situation. The EU New Pact on Migration (European Commission, 2020) encourages the establishment of wide skills partnerships in the EU and third countries covering policies of education, economic development, public administration, sectoral development, research, energy, environmental protection and dealing with climate change. This research study seeks to discuss the implications of the skills shortage models of Lithuania and Germany for the choices of economic stakeholders and policymakers between the investment in the development of local human capital and attracting a migrant workforce. There are discussed the following research questions: 1) What are the common and specific features of skill matching and skills shortages in Lithuania and Germany? 2) How are the eventual skill mismatches and shortages regarded and treated by the enterprises, education and training providers and policymakers? 3) To what extent is immigration and attracting a foreign workforce favoured as the solution to skill matching and shortage problems? It is based on the research executed in the framework of the EU Horizon 2020 programme project “Skill Partnerships for Sustainable and Just Migration Patterns” (Skills4Justice) implemented in 2023-2026.

Approach: The research study involves the identification of the demand for qualifications in the sectors of the economy and the explanation of the reasons for existing shortages of qualifications, identification of the changes in the demand for skills in the selected occupations with the most important shortages of skilled workforce, research of the availability of the free skilled workforce, disclosing capacities of the national system of qualifications, education and training providers to adjust the existing supply of qualifications to the changing demand. Exploration



of the skills shortage model for recruitment of skilled workers is based on the collection and analysis of the available official statistical data on the demand and supply of skills and qualifications, as well as conducting of qualitative research by interviewing representatives of employers, education and training institutions, national policy-making institutions in the involved countries.

Findings: This research study will disclose the key characteristics of the skill shortage models in the EU countries and will explain the related choices of policy and practice solutions between the investment in the development of the local human capital and attracting migrant workers. It will also elaborate on the sustainability of these solutions by referring to the challenges posed by the global demographic, socio-economic and geopolitical context.

Conclusions: Integration of third-country nationals in the labour market and skill formation systems is an important solution to the shortages of skilled workforce in the EU countries. Nevertheless, the attitudes and approaches of the policymakers and stakeholders to immigration largely depend on the size of the country and economy, capacities for integration of skill formation and employment systems, and engagement of state and stakeholders in the regulation of migration and skill formation.

Keywords

skill mismatches, migration, investment in human capital, vocational education and training, higher education

1 Introduction

Skill mismatches and especially skill shortages present significant challenges for the socio-economic development of many EU countries and neighbouring developed economies in the conditions of the post-pandemic recovery and degrading global geopolitical situation. Understanding the nature of skill mismatch and skill shortages in the context of changing labour markets and their implications for labour migration is crucially important in seeking to deal with existing inadequacies by applying skills development, activation and matching, remuneration, changing work conditions and innovations at work (EC, 2020). According to the European Labour Authority (McGrath, 2021), skills shortages in the workforce affect as many as 28 occupations currently employing 14% of the total EU workforce, concerning STEM, healthcare, IT and communication, as well as transport, hospitality, retail, manufacturing and construction. Skill shortages are usually dealt with by labour market stakeholders and policymakers by investing in the development of the local human capital or relying on attracting migrant workers. Triandafyllidou (2017) claims that current skills shortages in the EU can be dealt with more effectively by a demand-led approach, taking into consideration the economic cycles of Member States, different economies and labour markets and long-term socio-demographic processes like ageing of societies, configuration of nuclear families without extended support networks, and participation of women in paid work. McGrath (2021) claims that most employees in shortage occupations in the EU have a medium level of qualification and the possibilities to compensate for skills shortages by employing migrants are limited by the shortage of such workers in origin countries. Despite of growing understanding of the role of immigration in the solution of skills shortages in the EU and neighboring developed countries, applied practices of immigration and integration of migrant workforce raise many issues of sustainability. Employing migrant workers is widely used to solve labour and skills shortages but is often based on short-term economic interests and lacks socio-economic sustainability. The European Commission's concern over the reliance of sectors and enterprises in the EU on the low-skilled migrant workforce is because this is an unsustainable strategy that worsens the quality of work and life not only for migrants but also for the societies of host countries. The EU New Pact on Migration (European Commission 2020) encourages the establishment of wide skills partnerships in the

EU and third countries covering policies of education, economic development, public administration, sectoral development, research, energy, environmental protection and dealing with climate change. This document also stresses the importance of capacity building for VET and the integration of returning migrants in both countries of origin and destination.

This study seeks to discuss the implications of the skills shortage models of so-called destination countries in Europe for the choices of economic stakeholders and policymakers between the investment in the development of local human capital and attracting a migrant workforce. The following research questions are discussed: 1) What are the common and specific features of skill matching and skills shortages in the countries? 2) How are the eventual skill mismatches and shortages regarded and treated by the enterprises, education and training providers and policy makers? 3) To what extent is immigration and attracting foreign workforce favoured as the solution to skill matching and shortage problems?

It is based on the research executed in the framework of the EU Horizon 2020 project “Skill Partnerships for Sustainable and Just Migration Patterns” (Skills4Justice) implemented in 2023-2026.

2 Skill matching, skills shortages and migration

Cedefop’s second European skills and jobs survey discloses several important trends related to skill matching in the EU labour market (Cedefop, 2022). Current skills demand in the EU shows a significant share of demand for VET qualifications relevant to relatively low-skilled jobs (52% of all EU+ jobs) and moderate skills demands (31% of all EU+ jobs). Over-qualification in EU labour markets is more widespread than under-qualification (28% of survey participants are overqualified and 12% underqualified). This can reduce opportunities for integrating migrant workers from 3rd countries, especially when the over-qualification is caused by shrinking employment opportunities in high-skilled jobs or sectors of the economy (Cedefop, 2022). Horizontal skills mismatch in the EU is lower than vertical skills mismatch, with almost two-thirds (65%) of workers employed in jobs that require their field of study or a related one (Cedefop, 2022). There is also significant under-utilisation of skills. Digitalisation and automation of work processes in the EU so far tend to automate separate job tasks rather than displacing entire occupations requiring vocational education. Widespread adoption of computers and digital technologies in jobs and workplaces is accompanied by relatively modest demand for digital skills in EU economies and significant variations between sectors in the adoption of robots and the use of digital technologies like 3D printing. Overall, the intensity of the use of digital technologies at work is not high in the EU, with only 16% of the EU+ workforce using advanced digital technologies like computer programming, AI algorithms, and ICT system maintenance and development at work (Cedefop, 2022). The EU-wide survey on AI adoption in enterprises, sampling 9640 businesses across the EU27 (without Norway, Iceland, and the UK) conducted from January to March 2020 revealed high awareness (78%) but moderate adoption of at least one AI technology (42%) (European Commission 2020). The major internal barriers included difficulties in hiring new staff with the right skills (85%), the cost for adoption (83%), lack of skills among existing staff (81%), the cost of adapting operational processes (81%), etc. In-demand AI skills included programming (52%), big data management (43%), machine learning/modeling (39%), cloud computing (33%), and robotics (31%). Bridging this skills gap is crucial for unlocking AI’s full potential in driving innovation and competitiveness across EU businesses (European Commission, 2020).

Skill mismatch is an important factor of migration and is also experienced by migrant workers themselves. Visintin et al. (2015) analysed the skill mismatch of almost 700,000 native and migrant workers in 86 countries over the period 2008–2013 and found migrants are 10% more likely to be overeducated than the native population, especially migrants from developing

countries and regions. Migrant workers may work below their level of qualification because they lack competence or confidence in the language of the destination country.

Many barriers for migrant workers to access education and training are also still in place. A survey of refugees and asylum seekers globally executed by UNESCO-UNEVOC (2021) identified various barriers faced by these groups in accessing vocational education and training (VET) opportunities in destination countries. These barriers include language difficulties, legal, administrative and integration policies of countries affecting access to VET in practice and the relevance of available VET arrangements, legal and administrative barriers (when only citizens can apply for TVET), limitations for accessing apprenticeship pathways of training, uncertain legal status of refugees and asylum seekers making them unattractive for the companies, and absence of identity documents and documentary evidence of previous schooling (*ibid.*). The shortages of VET skills and qualifications among refugees and asylum seekers are related to poor equipment of VET providers and the absence of inclusive learning environments in VET systems of origin countries (UNESCO, 2021). Different legal limitations in accessing employment and recognition of the skills and qualifications of migrant workers are evident in destination countries, which increases the concentration of refugees and asylum seekers in unskilled and low-skilled jobs. Insufficient information, advice and guidance also contribute to this problem.

The EU New Pact on Migration (European Commission 2020) encourages the establishment of wide skills partnerships in the EU and third countries covering policies of education, economic development, public administration, sectoral development, research, energy, environmental protection and dealing with climate change. This document also stresses the importance of capacity building for VET and the integration of returning migrants in both countries of origin and destination.

3 Perception of the skill mismatches and shortages and migration as a solution by the policymakers, social partners, education and training providers

Fregin et al. (2020), in their study of the relationship between labour market institutions and optimal skill matching at the individual level, provide empirical evidence that stricter employment protection legislation is positively correlated with a higher share of allocation of workers to jobs matching their skill level. According to these authors, such findings can be related to the positive impact of strict employment protection legislation on employers' awareness of the necessity of compliance of skills to work requirements, leading to more careful selection of workers for jobs or training or expanding opportunities for employees to develop skills continuously. At the same time, strict enforcement of active labour market policies relates to lower shares of optimal skill matching and higher skills mismatch.

Sustainability of migration policies and interventions can be defined in terms of rights (to ensure access to fundamental human rights), policies (retaining political support) and scale (enduring over time and functioning at scale) (Betts, 2021). Discussions on the sustainability of migration and skill formation of migrant workers refer to the impact of migration for the formation and deployment of skills, socio-economic development of persons and societies in both destination and origin countries (Betts, 2021; De Haas, 2023; Chandler, 2023).

The justice in the field of skill formation and deployment can be defined as sets of established and practiced norms which define distribution of opportunities and possibilities of people (independently from their citizenship and migration status) to acquire, develop and deploy their skills based on the freedom of choice and respect to the personal integrity and decency (Chandler, 2023). Justice and especially injustices in the areas of skill matching and migration also very much depend on how the engaged actors deal with the structural injustice and perpetuate unfair advantages and disadvantages generated in skill formation and employment (Goodin 2023). The concept of justice is not considered from a purely legal and political perspective,

but from the perspectives that are more relevant to the ‘social justice’ aspects of skill matching and migration. In addition, economic concepts such as skill, human capital, and supply and demand within the scope of the concept of justice become the subjects of human rights and freedoms (Drew, 2023; Jasso, Törnblom & Sabbagh, 2016; Betts, 2021).

Education and training providers have high potential to contribute to effective integration of migrants, refugees, asylum seekers and internally displaced persons in skill formation and employment in countries of origin and destination (Wallis, Nacua and Winterton, 2022). Abdel Jabbar and Zaza (2016) found significant impact of VET programmes tailored to refugees in Jordan on the wellbeing of Syrian women refugees, including enhanced confidence and self-esteem, improved occupational and entrepreneurship skills and new life opportunities. Integration of migrant youth in skill formation of destination countries is influenced by the alignment of their educational and employment aspirations with possibilities offered by institutional settings of skill formation (Lafoucriere & Winterton, 2004).

Wood (2021) argues that the economic focus on solving skills shortages can lead to inadequate protection safeguards for the forced migrants in these pathways. Thompson and Walton-Roberts (2019) identify conflicts between existing international migration frameworks that deprive origin countries of essential workers such as nurses and other health professionals, and sustainable development goals (SDGs), such as access to training, orderly and responsible migration, and retention of health workers. Triandafyllidou and Yeoh (2023) notice that pandemics and post-pandemic recovery requires destination countries to revise their migration and migrant employment schemes focused on temporary immigration in favour of more sustainable and long-term immigration frameworks addressing long-term skill shortages and creating opportunities for more secure patterns of employment and skill development. Triandafyllidou (2017) claims that current skills shortages in the EU can be dealt with more effectively by a demand-led approach taking into consideration the economic cycles of Member States, different economies and labour markets and long-term socio-demographic processes like ageing of societies, configuration of nuclear families without extended support networks, and participation of women in paid work. She suggests introducing a flexible and proactive regulatory framework allowing the recruitment of migrant workers according to the demand for skills in sectors and regions. McGrath (2021) claims that most employees in shortage occupations in the EU have a medium level of qualification and the possibilities to compensate for skills shortages by employing migrants are limited by the shortage of such workers in origin countries. Armenta and Gleeson (2022) claim that precariousness and high vulnerability of employment are very typical for a large share of migrant workers (244 million) because of many socioeconomic, political and cultural factors defining migrant workers’ structural positions in the labour market and society. Free market-based deregulation of employment and labour relations in the global economy leads not only to degradation of job quality but also to increased rates of employment of migrant workers in ‘degraded quality’ jobs. Availability of a low-skilled migrant workforce in some sectors, like construction, leads to higher reliance on unskilled labour and shrinking employment opportunities for skilled/high-skilled workers, especially under conditions of deregulation and weakening labour relations and social dialogue. All these factors contribute to the enforcement of immigration in low-skilled and unskilled sectors and jobs, particularly in construction and agriculture (Armenta and Gleeson, 2022).

Promotion of vocational qualifications in construction and engineering sectors, as well as encouraging female and male jobseekers to pursue non-traditional career paths (e.g., females in STEM and engineering, males in nursing) in the destination countries, are regarded as significant alternatives to immigration in solving skills shortages (McGrath, 2021). EU-level communication tools, such as the EURES portal, are not sufficiently used for communicating information about skill shortages and employment opportunities between member states (ibid.).

Integration of migrant youth in skill formation of destination countries is influenced by their educational and employment aspirations combined with possibilities offered by institutional settings of skill formation. Lafoucriere and Winterton (2004) reported challenges of labour market integration of second-generation migrants in the Netherlands and France. Beicht and Walden (2017) found a migration background had a negative effect on youth transition to initial VET in Germany and evidence that failure to achieve school-leaving certification presents an obstacle to further training success and qualification. Young migrants in Germany appear to be particularly affected by access difficulties and are strongly underrepresented in dual vocational training and overrepresented in the transition system (Beicht & Walden, 2014). Schels and Abraham (2021) similarly found that higher occupational aspirations of migrant youth, compared with native youth, do not facilitate their transition to dual VET pathways in Germany. Examining the experience of young migrants in different European countries, Jeon (2019) concludes that although VET appears to help their integration, pathways are unsystematic or sporadic, so she calls for more flexibility in upper secondary education, preparation courses, national strategies and monitoring to create a ‘strong, flexible and inclusive VET system.’

The capacities of education and training providers to develop migrant workers’ skills depend on national education policies (Wickham, 2017). Well-established social dialogue involving a range of stakeholders, including governmental and non-governmental organizations, employers’ and employees’ organizations and educational institutions, is also vital for successfully integrating refugees into the VET system and labour market (Lee et al., 2021). Aerne and Bonoli (2021), focusing on refugees in Switzerland, argue that countries with collective skill formation systems are keener to apply VET for vocational and labour market integration of migrants because of the proven reputation of their VET systems in fostering employability and employment. Skill formation and employment systems in Central and Eastern European countries are characterised by a rather restrictive role of official institutions and ineffective involvement of social partners in dealing with the integration of migrant workers, which leaves a crucial contribution to NGOs working with migrants (Leontiyeva, 2020).

Firm-specific logics of career with domination of firm-specific skills in Germany and Japan also limit the possibilities of the change of company, and the workplaces remain ethnocentric and socially/culturally unattractive for foreign employees (Leontiyeva, 2020). Iskander (2021), in her study of the migrant workers situation in Qatar, discloses the practices of companies and the government of denying the recognition of the embodied skills of migrant workers acquired through work experience and on-the-job training to justify their exploitative treatment and rights deprivation. Webb et al. (2017) indicate the ‘invisibility’ of low-skilled migrants to the ‘marketised’ VET policy and practices in Australia.

Flexibility and agility of skill formation systems in adjusting to specific skills needs of migrants, especially refugees, become increasingly important in the context of geopolitical disruptions. Hofmann (2022) discusses the activation of the EU Temporary Protection Directive in seeking to facilitate the employment of refugees from Ukraine by providing immediate access to skills assessments and competence checks. Effective employment of Ukrainian refugees is enhanced by their high level of formal qualifications and high demand for skilled workers in many EU countries.

In some cases, governments seek to solve the problems of skill shortage by revising immigration regimes and even lowering or eliminating threshold requirements for the skills of migrant workers. Brücker et al. (2020) analyse labour migration to Germany from Western Balkan countries according to the “Western Balkans regulation” introduced in 2016, which provides access to the German labour market without requiring proof of possessing adequate professional qualifications, provided there is a binding job offer from the future employer and approval of the Federal Employment Agency (BA). According to this regulation, workers in

construction and hospitality were employed on the basis of personal recommendations and assurances of potential employees' work performance before being hired to positions unfilled by the local workforce. The targeted foreign workforce consists of young, healthy, skilled workers, who are flexible in terms of workload and working conditions.

4 Solution of skill shortages in Lithuania and Germany

This section presents some identified cases of solution of skill shortages in choosing between employment of the third country nationals, investment in available human capital and investment in automation in Lithuania and Germany.

4.1 Lithuania

Socioeconomic context of skill mismatches. The major factors that changed approaches to recruiting skilled labour were related to demographic situation, emigration and immigration, and socio-economic trends.

Juska and Lazutka (2024) note that up until 2021 the number of inhabitants in Lithuania decreased by approximately 900 thousand compared to 1991, and the population of working age (15-64 years) decreased by 600 thousand up to 1.5 million. The ageing population is another demographic factor which increases the demand for an external labour force in many economic sectors. The European Employment Service indicates that in 2022, Lithuania had the largest demand, expressed in vacant places in transport and storage (16,5%) and manufacturing (16,3%) companies (ibid, 2024). Furthermore, higher demand for employees was observed in education, public administration, health care and social work activities, accommodation, catering services and others. The majority, up to three quarters, were for skilled jobs and job vacancies were mainly concentrated in bigger cities. The primary labour market shortages in 2022 were noted in a number of industries, including IT, transportation, the food industry, textiles, and education. The demand for workers in preschool teachers, cashiers, heavy truck and lorry drivers, food and related product machine operators, metal workers, and other occupations was high. These occupational subgroups have at least twice as many job openings registered in them as there were job seekers registered during the same time period (EURES, 2023).

Employers' main strategy is recruiting labour from other countries. These efforts are reflected in the increasing number of job migrants to Lithuania (more than 40 thousand in 2023) and the high number of job advertisements aimed at recruiting migrants.

Policy responses and solutions of skill shortages. The EU website on integration highlights that in 2024, Lithuania made stricter procedures for employing foreigners and issuing temporary residence permits in Lithuania. These restrictions appear as a response to the increasing number of new companies that do not carry out any specific activity but rather act as intermediaries for the issuance of temporary residence permits to migrants. Upon obtaining residency permits, many migrants engage in contract labour for other businesses. As a result, Lithuania established a new process to guarantee that businesses can no longer invite foreign workers to work in Lithuania for a period of six months if they are involved in a false activity or are not really employed there.

At the political level, the attraction of foreign workers to the Lithuanian labour market was considered only as a countermeasure to reduce staff shortages, giving political priority to measures for the return of departed Lithuanian citizens. Both the Strategic Policy Papers on Labour Immigration adopted in 2007-2008 (see Government of the Republic of Lithuania 2007 and 2008) and the Guidelines on Migration Policy adopted in 2014 (the Government of the Republic of Lithuania 2014) refer to the principle of compensation for workers from non-EU countries: countries can only be used to compensate for shortages of labour if this shortfall cannot be compensated by local labour returning from emigration active citizens or nationals of EU Member States (Žibas&Petrušauskaitė, 2015).

Employers' interest-based selection model of granting system of the work permit dominates the legal regulation of labour migration in Lithuania (Žibas, 2007; Žitkienė, Liakaitė 2010). The main methods used to select migrant workers are employment contracts and labour market tests. Employment contracts are used to control the selection and arrival of labour migrants, who, before arriving in Lithuania, must obtain a work permit and a temporary residence permit on the basis of employment, for which an employment contract is required, which excludes the possibility for self-search for work upon arrival in the country. The labour market test is also used for the control of the arrival of third country nationals, when they may be employed only after a vacancy has been published at the Territorial Labour Exchange (LLC) and if a national of the Republic of Lithuania or another EU country is not employed within a month.

Suggested instruments of conservative immigration policy oriented to the protection of the labour market are criticised by the employers organisations and neoliberally oriented expert bodies because of their concentration on the middle-level vocational qualifications where the demand of the workforce is declining due to automation and digitalization of work processes. The report of the Lithuanian Free Market Institute pays attention to the low Migration Replacement Rate (MRR) typical for Lithuania and other CEE countries (Lietuvos laisvosios rinkos institutas, 2021). It is claimed that a high rate of emigration and low MRR lead to labour shortages and, thus, significantly impede economic growth. This report also criticises the fragmented and unsystemic character of labour migration, targeting the "bottleneck" situations in the labour market only (like occupation lists and labour market tests). There is criticised restrictiveness of the migration policy, which largely ignores economic principles and is focused on sporadic policy-specific decisions.

Investment in automation as an alternative solution. What regards investment in the automation of work processes in dealing with the shortage of skilled workforce, the choice of this option is limited by different factors. Huettinger et al. (2019) indicate the high substitution effect of automation to the current and future employment in Lithuania, especially in the sectors of financial services, information, insurance, public administration, manufacturing, transport and warehousing. The trends of labour market restructuring reduce the demand for machinery operators and assemblers and increase the demand for healthcare, education and personal service providers. The study on the roadmap of digitalization of the Lithuanian industry (Leichteris, 2019) indicates the strong dependence of the national economy on the openness to international trade of industrial manufacturing, where export makes up 62 per cent of GDP, but the manufacturing sector is dominated by low and medium technological level manufacturing (85 per cent of all manufacturing). The share of technologically low subcontracting manufacturing is 55 per cent, which is a source of concern due to the low productivity and low sustainability. Digitalization and automation of manufacturing are impeded by the low skill levels of the workforce, which could lead to the high share of vacancies for higher-skilled jobs.

Sectoral approaches to matching demand and supply of skills. There can be distinguished several sectors of the economy which together employ the biggest share of the workers from the third countries. From 2014 the vast majority of the migrant workers have been employed in the transport sector as drivers of international freight vehicles and in the sector of construction as skilled workers, while the employment of migrant workers in the industry is much lower (Strata, 2023). Transport, logistics, ICT and construction sectors are characterized by an abundance of workers from abroad (Strata, 2023). According to administrative data, in 2022, in computer programming activities, foreigners concentrated in high-level skilled jobs with salaries that are among highest in the country (almost 18 per cent of all employees). In the warehousing and land transport sectors, citizens of other countries mainly worked in medium-level skilled jobs (33.7 and 62.4 per cent of all employed workers, respectively).

Enterprises and employers' organizations in different economic sectors make different choices in solving the problem of skill shortages. Here, the choices of storage solutions in the road freight transport and engineering/metalworking industries will be reviewed.

The transport sector, and especially road freight transport, experiences a high shortage of skilled international cargo truck drivers. According to the National Association of Cargo Road Transport Enterprises LINAFA, the problem of the shortage of truck drivers in international transport companies persists. The shortage of drivers is evaluated from 5 to 7-8 thousand per year. Lithuanian companies struggle in competing for drivers with the Western EU countries and the UK. Besides, this occupation is not attractive to the local population (Lysionok, 2022). Lithuanians are primarily employed in companies operating in the Lithuanian market; rarely any driver chooses international transportation, unemployed persons trained by the Employment Service have no experience, and transporters do not want to put them behind the wheel of an expensive truck transporting expensive cargo. They have to gain experience by working as a co-driver/apprentice who is paid minimum wage, so few people agree to such terms. There are over 80 thousand vacancies and a small group of Lithuanians who want to occupy these workplaces (Burba, 2022). Transport companies and their associations with the Employment Service are trying to popularize this profession so that there are as many drivers as possible (Burba, 2022). Big companies have their own strong driver training schools. Currently, Lithuanian companies employ 79.4 thousand people. drivers, of which 80 per cent are foreigners (Burba, 2022). This is why the workers from Belarus and Ukraine have become a very important source of workforce in this sector. According to Linava, the employed drivers from the third countries do not compete with the local workforce but occupy the free available workplaces which cannot be filled by the locals, which permits the transport companies to maintain their positions in the market. The third-country nationals receive the same wages as locals and enjoy the same working conditions and social guarantees. The association asks the responsible national institutions – the Department of Migration of the Ministry of Interiors to shorten the periods of issuing visas and permits for temporary stay in Lithuania for country nationals. After the launch of the Russo-Ukrainian war, most drivers from Ukraine returned to defend their homeland and introduced visa restrictions for the citizens of Belarus and the Russian Federation, eliminating the possibility of hiring drivers from these countries. The National Association of Car Carriers Linava cooperates with Central Asian countries - Uzbekistan and Kazakhstan. The association shares its expertise and practical experience with the driver training institutions of these countries, helps establish driver training schools and provides them with their own programs. "Linava" provides expert services in Uzbekistan to the Ministry of Transport of this country and the local carrier association AIRCUZ in establishing a special driving school that will train long-haul truck drivers seeking international qualifications. It is planned that about 1,500 long-distance drivers will be able to learn at the same time. It is expected that this will help to solve the problem of the lack of long-distance drivers, and some specialists will also find employment in Lithuanian companies (Skripal, 2022). The Ministry of Transport of Uzbekistan and the Association of Transporters of this country have already started a pilot project, during which several dozen long-distance drivers are being trained at a special driver training centre in the capital of this country. It is expected that in a few years some of the graduates of this center will be employed in Lithuanian transport and logistics companies. It is planned that part of the training for long-distance drivers could be held remotely by the "Linavas" training centre, which is an accredited representative of the International Road Transport Association (IRU, International Road Union) in Lithuania. In the future, drivers trained in accordance with European requirements could find employment in Lithuanian transport companies and thus at least partially solve the problem of the lack of long-distance drivers.

The sector of engineering and metalworking solves the problems of a shortage of skilled workers by investing in the preparation of the local workforce (including promotion of jobs and

careers in the sector through vocational guidance), investing in automation and robotization and also hiring skilled workers from third countries. Darius Lasionis, Director of the Lithuanian Engineering and Technology Industry Association LINPRA, notes that 5-6 years ago, domestic companies talked more about cheaper labour and where to "get" or "bring" it from (Delfi, 2024). Now, more and more owners and managers realize that it is difficult to "get" cheaper labour, especially due to the current geopolitical situation, so it is necessary to invest in digitization and new technologies, to think about how to increase efficiency and productivity with the human resources available in the market, and for this, it is necessary new skills and competencies of employees. Digitalization and automation enable solving the problem of the lack of technological and production workers, and increase productivity. In the labour market, there is a demand for highly qualified automation or mechatronics workers and engineers - they develop, install and maintain robotic or automated systems. Workers who previously worked in low-skilled jobs are willing to accept opportunities to retrain and handle innovative technologies, to operate robotic devices and identify and propose technological changes themselves.

"Lithuania could act more actively in this aspect, strategically setting priorities, making changes and strengthening the teaching of natural sciences (STEM) in general education schools, equipping technology classrooms, promoting teacher training, retraining of specialists in companies, providing targeted investments. There is a lack of experts - teachers and lecturers - who would train specialists to work with the latest technologies. The implementation of robotization technologies requires significant investments, and the state institutions lack the political will to refine and finance very clear industrial directions, which, if digitized, robotized or automated, would create high added values for the country" (Delfi, 2024).

Recently, more and more companies in the engineering industry are investing in the automation and robotization of technological processes, especially in areas where there is a significant lack of skilled labour. For example, shipbuilding companies are investing in robotic welding lines in collaboration with advanced robotic technology companies. At the same time, companies invest in scientific research of technological processes and the creation of innovations, due to which the need increases demand for highly qualified engineers, technicians and automatic process operators.

Implementation of robotic solutions is also taking place in the fields of electronics and metal processing. Companies purchase robotic systems from the technology providers operating in Lithuania. Although automated solutions are most relevant for large companies, smaller businesses, even small companies, tend to integrate robots into their operations. Established industrial innovation parks, such as the VMG Technics R&D Park, are focused on industrial technological breakthroughs and help to solve various problems of innovation development, implementation and support.

4.2 Germany

Economic and employment growth. Since the mid-2000s, the German labour market has experienced a significant and sustained upswing. This period of growth was remarkable, especially given the economic difficulties faced by many other European countries during the Great Recession of 2008/2009 and the European debt crisis of 2012/2013. Key factors driving this upswing included increased matching efficiency, job creation intensity and a reduced propensity to dismiss, which were significantly influenced by the labour market reforms of the mid-2000s, known as the Hartz reforms. Another crucial component of this labour market upswing has been the expansion of the labour force, achieved through higher participation rates and substantial immigration. Between 2006 and 2017, Germany experienced net immigration of 3.8 million people, which significantly boosted the labour force. The increase in labour force participation, especially among women and older workers, also played an important role. The combination of these factors created the necessary conditions for sustained employment growth,

which further exacerbated the already existing shortage of skilled labour (Hutter & Weber, 2023).

Economic downturn and skill shortage. The German economy began 2024 with weak growth of 0.2 per cent. Nevertheless, in March 2024, approximately 38.7 per cent of open positions remained unfilled due to a lack of qualified people. Although the economic downturn reduces the skills gap, it does not eliminate it entirely. In the metal and electrical industry, for instance, more than 143,000 job vacancies—amounting to over half of all available positions in this sector—could not be filled due to a shortage of suitably qualified individuals (Arndt et al. 2024). Due to demographic factors, the labour force will shrink by 7 million by 2035 (Hellwagner et al., 2022). A balance can be achieved by increasing potential, particularly among women and older people, through increased immigration and the long-term integration of immigrants. Nevertheless, it is foreseeable that an increasing labour supply will cease to be an employment factor and that growth will reach its limits (Hutter & Weber, 2023).

The central role of immigration in Germany's demographic trends. Immigration is for a long time already a central societal factor in Germany, with refugee-related immigration being predominant since the wars in Syria, Afghanistan, Iraq, and Ukraine. The balance of natural population development—the difference between births and deaths—has been negative since the 1970s. Without immigration, a continuous population decline would have been observed over the past 50 years. Immigration has reversed this trend, leading to population growth. According to the German Microcensus, a total of 83.9 million people live in Germany, of whom 24.90 million have a migration background in a broader sense (29.7 per cent of the population), and 16.07 million have personal migration experience (19.2 per cent of the population). A person is considered to have migration experience in a broader sense if they or at least one parent or grandparent immigrated to the present-day territory of the Federal Republic of Germany (DeStatis, 2024a). Additionally, immigration is distributed differently across age cohorts: in 2023, 43.1 per cent of all children under the age of five had a migration background. The integration of children with a migration background is a significant societal challenge, particularly because educational opportunities in Germany are still heavily influenced by the socio-economic status of the family. Migration, however, also plays a central role in the age group of those seeking qualifications, which is already noticeable in quantitative terms. In the group of those under 20 years old, the number of immigrants quadrupled from 57,406 in 2012 to 215,666 in 2022, and among those under 30 years old, the number of immigrants nearly doubled, rising from 381,593 in 2012 to 682,009 in 2022 (DeStatis, 2024b).

Geographical variations in immigration distribution. The distribution of immigration varies geographically in Germany. Compared to the respective total populations of the federal states, in 2023, the proportion of people with a migration background was highest in the city-states of Bremen (44.0 per cent), Hamburg (39.5 per cent), and Berlin (39.4 per cent), as well as in the larger states of Hesse (37.9 per cent), Baden-Württemberg (37.1 per cent), and North Rhine-Westphalia (34.3 per cent). In contrast, the proportion of people with a migration background in East Germany was 11.4 per cent, while in West Germany (including Berlin), it was 32.9 per cent, and 29.7 per cent in Germany overall (DeStatis, 2024a).

Regional disparities and labour mobility. Niebuhr (2019) examines regional disparities and labour mobility in Germany, highlighting persistent economic and labour market differences between East and West Germany. The study shows that despite significant internal migration, particularly from East to West, regional disparities remain substantial. The results show that migration has the potential to reduce regional disparities, but that selective migration of highly skilled workers can exacerbate these disparities. This suggests the need for effective regional policies and better coordination with labour market strategies to support structurally weak regions. The study underlines the importance of creating and securing quality jobs in these regions to mitigate the negative effects of migration and economic divergence. The study by

Michaelis and Busse (2021) examines the impact of regional disparities on young people's chances of securing an in-company training place in Germany. Young people in regions with less competition for training places benefit more, especially those with higher educational qualifications and better grades. However, the advantages are mainly seen in less prestigious occupations with recruitment problems.

Inclusion of international students and blue card holders. The study by Weißmann and Eberle (2023) analyzes the retention rates of international students and academic professionals holding a Blue Card in Germany, against the backdrop of demographic changes and a growing skilled labour shortage. The methodology presented utilizes data from the Central Register of Foreigners (Ausländerzentralregister), revealing that 55% of international students remain in Germany five years after their initial residency, and 46% remain after ten years. Academic professionals with a Blue Card show even higher retention, with 83% still residing in Germany after five years. The results emphasize the effectiveness of policies aimed at retaining highly skilled migrants to mitigate labour shortages.

Migration, higher education and vocational education and training. The study by Busse and Scharenberg (2022) investigates how immigrant optimism influences educational transitions throughout the educational life course in Germany. The research reveals that, compared to their native peers, young adults with an immigrant background are more likely to pursue academic education over vocational training (VET) at various educational stages. The findings indicate that immigrant youths have higher participation rates in academic tracks at the upper-secondary level and are more likely to transition to higher education after completing an upper-secondary degree. Mediation analyses confirm that these educational choices are largely driven by higher educational and occupational aspirations among immigrant youths and their parents. The study highlights significant ethnic choice effects, demonstrating that immigrant optimism plays a crucial role in shaping educational trajectories. This is evident in the acquisition of higher education entrance qualifications: the number of German pupils pursuing university entrance qualifications has decreased by 23.1% since 2009, while the enrollments of pupils with migration background in educational programs leading to such qualifications have increased by 18.7% (BMBF, 2024).

Young men dominate in the dual system (> 60%) and women in the school-based vocational training system (> 70%), which reflects the gender-specific nature of career aspirations. In contrast, young women and men of non-German nationality with at least an intermediate school leaving certificate are proportionately more frequently represented in the school-based vocational system than people of German nationality. In the dual system, persons of non-German nationality are overrepresented in those occupations in which there are particularly large recruitment problems, such as cleaning occupations, food processing occupations and hotel and restaurant occupations. The three most heavily occupied professions with particularly high proportions of persons of non-German origin are medical specialists, sales occupations and hotel and restaurant occupations; in the latter group, the proportion of new entrants who are young people of non-German origin is more than 40% (Autor:innengruppe Bildungsberichterstattung)

Young adults without completed training. The group of young adults without formal vocational qualifications is quite diverse. It includes low-skilled individuals and those who have dropped out of training or university. According to the Federal Institute for Vocational Education and Training (BIBB), based on microcensus data, the proportion of 20 to 34-year-olds without formal qualifications was 19.1% in 2022, up from 17.8% in 2021. This represents approximately 2.86 million young adults without a formal qualification in 2022, compared to 2.64 million in 2021. As in previous years, the rate of individuals without formal qualifications in 2022 was higher among those with a migration background. Specifically, the rate was 11.6% among Germans without a migration background, 39.1% among migrants with their own migration experience, and 20.4% among individuals with a migration background where either

they or one of their parents is a national of another country, but not an immigrant (BMBF, 2024; Maier, 2021).

Discriminatory patterns in VET. The study by Beicht and Walden (2019) examines the challenges faced by young people from migrant backgrounds in transitioning to company-based vocational training in Germany. The research highlights that these individuals experience significant disadvantages compared to their non-migrant peers, influenced by factors such as region of origin and generation status. Young migrants from Turkish or Arab backgrounds face the most substantial challenges, while those from Eastern Europe show better integration outcomes over generations. The findings underscore the need for targeted support measures to improve educational and vocational outcomes for young migrants.

On 1 August 2024, the Act to Strengthen the Promotion of Initial and Further Training will come into force and with it a legal entitlement to extra-company vocational training if there is a regional shortage of training places ('training guarantee') (Enggruber & Neises, 2023). The extent to which the law is suitable for changing existing patterns of discrimination remains to be seen.

Discriminatory patterns in recruitment. Discriminatory patterns, however, are also found following vocational training. The study by Kroll et al. (2021) examines the discriminatory potential in modern recruitment practices in Germany, specifically focusing on methods such as the use of professional social network sites (SNSs), active sourcing, and the assignment of recruitment to external agencies. The research identifies three main sources of discrimination: recruiters' personal biases, explicit instructions from managers, and assumptions about company preferences. The findings indicate that marginalized groups, particularly women, older employees, and those from Southern/Eastern Europe, are less frequently approached and offered jobs. The study suggests that current legislation may be insufficient to protect these groups from discrimination in modern recruitment contexts.

Social exclusion of southern European migrants in post-2008 economic crisis. In contrast to the study of Weißmann and Eberle (2023), Castellani (2020) explores the experiences of Southern European migrants from Italy, Spain, and Portugal in Germany following the 2008 economic crisis. The research reveals that many of these migrants, despite being highly educated and possessing high cultural capital, often find themselves in precarious, low-wage jobs with limited social protection. This condition highlights the differential inclusion within the German labour market, where many Southern EU migrants are treated as "outsiders" in terms of labour and social rights. The findings show that these migrants face significant barriers in accessing social benefits, such as unemployment benefits and healthcare, often resorting to transnational networks and informal strategies to cope with these challenges. The study emphasizes the need for rethinking European and national social protection policies to better integrate intra-EU migrants into the social welfare systems.

The impact of COVID-19 on Germany's seasonal labour migration regime. The study by Biaback Anong (2024) examines the German seasonal labour migration regime and the impact of the COVID-19 pandemic on it. The research reveals that the pandemic exposed the critical dependency on seasonal migrant workers in German agriculture, leading to temporary regulatory changes such as extended working hours and social security exemptions to address labour shortages. Despite these shifts, the regime remains fundamentally stable, characterized by just-in-time migration tailored to agricultural needs and mechanisms of differential inclusion that integrate specific groups of migrant workers differently. The analysis underscores that seasonal migrant workers are treated as outsourced labour whose social reproduction costs remain in their home countries and are discursively framed as 'wanted migrants' essential for national interests. The pandemic heightened awareness of the exploitative conditions faced by these workers, prompting a brief increase in political and public attention to their working conditions.

Recognition of foreign qualifications. The recognition of foreign professional qualifications has played a vital role in the immigration of skilled workers. Since 2012, federal and state recognition laws have established a legal right to conduct a recognition procedure, enabling many immigrants to meet the requirements for immigration as skilled workers. From 2012 to the end of 2021, around 316,000 applications for professional recognition were submitted. With the reform of the Skilled Worker Immigration Act (Fachkräfteeinwanderungsgesetz), opportunities for entering the labor market have been significantly expanded, just in specific professions, professional recognition will still be required (e.g. nurse, teacher, childcare worker), but in other cases, it can be voluntary or deferred until after entry. First reform step since 18 November 2023: The list of shortage occupations has been significantly expanded. Already recognised skilled individuals are now allowed to work in all qualified professions (with the exception of regulated professions such as healthcare, nursing and teaching occupations). This essentially requires a job offer or an employment contract and proof of recognition. If all requirements are met, there is a right of residence. Second reform step since 1 March 2024: For those seeking an apprenticeship, the previous requirements have been eased, and the search period has been extended from 6 to 9 months. It is now also possible for individuals with relevant professional experience to work in qualified employment without undergoing a formal recognition procedure. The following criteria apply: (1) A state-recognized university degree in the country of employment or at least 2 years of professional qualification or an AHK certificate, and (2) within the last 5 years at least 2 years of professional experience at a specialist level, which is professionally related to the intended activity in Germany. Third reform step since 1st June 2024: individuals are allowed to enter the country for up to 12 months without a job offer or contract to seek employment, training, or qualification as part of the recognition procedure (Bushanska et al., 2023).

5 Conclusions

Comparing the above-analysed skill-matching situations in Lithuania and Germany and the responses of policies and stakeholders to the skill-matching challenges, several insights can be outlined.

Despite some similarities in the socio-economic context, where the main similarity of the countries is a deficit labour market and lack of skilled workforce, there are significant differences in the responses of the policies and stakeholder strategies to skill matching problems. In the case of Lithuania, significant skill shortages are strongly influenced not only by the economic growth and expansion of the labour market but also by the demographic situation and socio-economic factors (intensive emigration in the period of 2004-2014). With regards to the choices of solutions for the skill shortages, these are strongly defined by the agendas and strategies of the enterprises and concentrate on the ‘cost-effective’ corporate approaches, such as company-based training at the workplaces and recruitment of the third-country nationals. Conservative and restrictive governmental policies of immigration typical for small countries with rather mono-cultural societies are based on the momentary skills needs of employers and focused mainly on the attraction of low and middle-level skilled workforce. Weak integration of migrant workers in the formal education and training system is accompanied by company-based training at the workplace or at the training centres of companies.

In the case of Germany, the skills shortages of the leading European economy are mainly defined by the dynamically expanding labour market and demographic decline, and integration of the migrant workforce in the labour market and skill formation system is a comparatively well-established object of the federal and regional policies with a focus on satisfying the current and future demand of skills. Nevertheless, there are different bottlenecks in the systems and mechanisms of education, skill formation, social policy and employment, as well as in the corporate practices of human resource management, which create problems of socio-economic

integration of the significant and increasing flows of the migrant workforce. Sustainable and mutually beneficial integration of the migrant workforce is also challenged by the discrimination practices at recruitment and employment, concentration of the migrant workers in low skilled jobs, obstacles in the recognition of qualifications acquired in the countries of origin and other challenges.

This comparison leads to the conclusion that implementation of the European Pact on Migration and Skills Partnerships between the EU countries and the third countries will require a strong orientation to the specificities of labour market needs and skill formation system capacities of each country engaged in this undertaking. However, this circumstance does not prevent the EU countries from exchanging and cooperating in implementing Skill Partnerships and other common initiatives for sustainable and just migration and solution of skill shortages.

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Biographical notes

Dr Vidmantas Tūtlys is a researcher and professor at the Institute of Educational Science of Vytautas Magnus University in Kaunas, Lithuania.

Dr Andreas Saniter is a researcher at the Institute of Technology and Education (ITB) of the University of Bremen, Germany.

Dr Kristina Kühn is a researcher at the Institute of Technology and Education (ITB) of the University of Bremen, Germany.

Dr Dr h.c. Michael Gessler is a researcher and professor at the Institute of Technology and Education (ITB) of the University of Bremen, Germany.

Dr Jonathan Winterton is a researcher and professor at the Leeds University Business School, the United Kingdom.

Dr Lina Kaminskienė is a Chancellor of the Academy of Education, researcher and professor at the Institute of Educational Science of Vytautas Magnus University in Kaunas, Lithuania.

Papers from Symposia

A symposium on migrants' transition to successful pathways and integration: Supportive mechanisms and barriers



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A Symposium on Migrants' Transition to Successful Pathways and Integration: Supportive Mechanisms and Barriers

Kammermann, Marlise

marlise.kammermann@sfuvet.swiss, Swiss Federal University for Vocational Education and Training

Laczik, Andrea

alaczik@edge.co.uk, The Edge Foundation

Keywords

migrants, vocational education and training, trajectories, transition, inclusion

1 Introduction

Migration has become an increasingly discussed topic among all spheres of life, be it policy circles, media or the general public. Further, migration has been greatly politicised as, during the past years, Europe has experienced a considerable number of migrants arriving. It is, therefore, in the individual countries' interest that the migrant population is socially and economically integrated, hence engaging with education and training, and employment. Migrants arrive in European countries with different backgrounds, and most are eager to continue their disrupted lives by engaging with learning, finding employment (Learning and Work Institute, 2019) and becoming fully integrated members of a community again.

However, there is a significant issue with migrants arriving with qualifications that are not described in terms that are used, recognised, and understood in the receiving country (Laczik and Lasonen 2010; Laczik, 2014; Busse et al., 2024) or gained work experience in their country of origin that is undervalued and unacknowledged in their new home. This places them in an unfavourable situation. Heath and Cheung (2007) argue that these migrants form a new segment of disadvantaged people in Western societies. In order to pre-empt this happening or remedy this, vocational education and training (VET), together with developing language skills in the country of residence, can play a crucial role. VET and pre-VET provisions can offer migrants learning opportunities that equip them with the skills and knowledge, and certificates to become successful in their chosen careers (Stalder et al., 2024). VET schools, enterprises and other establishments can act as enabling local learning ecosystems that are based on communications among different stakeholders (Buchanan et al., 2017) to enhance migrants' experiences and equip them with the skills and knowledge to navigate their careers. The concept of an ecosystem helps to enhance our understanding of how individuals (including migrants themselves), networks, and institutions interact to enhance migrants' learning, training and later working experiences that may lead to their economic and social integration.

It is vitally important to identify and understand what makes vocational provisions targeted to migrants successful. How can individuals, networks, and institutions working together create an enabling ecosystem that may enhance migrants' opportunities and may lead to their social and economic integration? In what manner do the life transitions of migrants manifest within



this ecosystem? These questions are discussed during the symposium that brings together three European countries and national contexts, namely Germany, England and Switzerland.

2 Papers of the Symposium

The first two contributions deal with the pre-apprenticeship for integration (PAI), a one-year pre-vocational programme in Switzerland which prepares refugees and temporarily admitted persons for entry into initial VET.

The first contribution, ‘Revisiting the Pre-apprenticeship for Integration: Who Has Access, Who Does Not, and Why?’ by Barbara Stalder and Marie-Theres Schönbächler, focuses on refugees and temporarily admitted persons who were not admitted to the PAI or did not finish the programme. It examines and discusses the reasons for nonparticipation and early leaving. <https://doi.org/10.5281/zenodo.13237607>

The second contribution, ‘Transition of Refugees into Vocational Training and Guidance in Companies’ by Alexandra Felder, Isabelle Caprani, Marlise Kammermann and Laurence Fedrigo, analyses the guidance in training companies and its influence on the agency of refugees and temporarily admitted persons. <https://doi.org/10.5281/zenodo.13238155>

The third contribution, ‘The Role of VET in Supporting Young Migrants in England: An Exploration of Issues, Challenges, and Good Practices’ by Andrea Laczik, Natasha Kersh, Dana Dabbous, Sait Bayrakdar and Kat Emms, explores and discusses the role of VET in young migrants’ trajectories from education to employment. <https://doi.org/10.5281/zenodo.13238452>

The fourth contribution, ‘Pathways to Integration: Understanding the Educational Trajectories and Transformative Learning Experiences of Turkish Migrant Women in Germany’ by Filiz Keser Aschenberger, is about the learning experiences of Turkish migrant women and the impact on their life courses. <https://doi.org/10.5281/zenodo.13238683>

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Biographical notes

Dr Marlise Kammermann is a Senior Researcher and Senior Lecturer at the Swiss Federal University for Vocational Education and Training (SFUVET). Her main area of interest is the inclusion of disadvantaged people in education and training, the labour market, and society.

Dr Andrea Laczik is the Director of Research at the Edge Foundation. Her research interests include VET and apprenticeships at all levels, skills development, and youth transitions. She also has an interest in comparative and international education.

Stalder, B. E., & Schönbächler, M.-T. (2024). Revisiting the pre-apprenticeship for integration: Who has access, who does not, and why? In C. Nägele, B. Esmond, N. Kersh, & B. E. Stalder (Eds.), *Trends in vocational education and training research, vol. VII. Proceedings of the European Conference on Educational Research (ECER), Vocational Education and Training Network (VETNET)* (pp. 138–143). VETNET. <https://doi.org/10.5281/zenodo.13237607>

Revisiting the Pre-apprenticeship for Integration: Who Has Access, Who Does Not, and Why?

Stalder, Barbara E.

barbara.stalder@phbern.ch, Bern University of Teacher Education, Switzerland

Schönbächler, Marie-Theres

marie-theres.schoenbaechler@phbern.ch, Bern University of Teacher Education, Switzerland

This paper is part of the symposium on *Migrants' Transition to Successful Pathways and Integration: Supportive Mechanisms and Barriers* (<https://doi.org/10.5281/zenodo.13237483>).

Abstract

Context: To enhance the vocational qualifications and job prospects of refugees, temporarily admitted persons, and late-arriving young adults from outside the asylum system, the Swiss government has introduced the pre-apprenticeship for integration (PAI). The one-year programme prepares those groups of migrants for a regular apprenticeship, qualified work, and a sustainable career. The PAI is structured similarly to two-year apprenticeships and is offered in various occupational fields. Since 2018, it included more than 4000 migrants aged 16 to about 36 from more than 90 countries.

Approach: The introduction of the PAI is accompanied by a research project that evaluates the quality of the learning provisions in the workplace and VET school and investigates the career prospects of the PAI participants. It is based on resource theory, the job characteristics model, and their adaptations to VET, and uses a mixed-method approach with surveys and interviews with all stakeholders of the six PAI cohorts. While previous publications have investigated the career prospects of PAI participants, at ECER 2024, we will focus on those migrants who were not admitted to the PAI or did not finish the programme. To this end, we will analyse monitoring data from the 18 participating cantons and the federal statistical office.

Findings: The analyses are ongoing, and findings cannot be provided yet. Results from the survey with employers and the interviews with the contact persons of the cantons suggest, however, that nonparticipation in the PAI and early leaving may have different and multiple reasons. They highlight that limited individual, social, and situational resources may lead to a misfit with the programmes' requirements or the chosen career path.

Conclusions: Based on the findings, we will discuss possible measures to reinforce refugees' individual resources and access to pre-vocational programmes and regular apprenticeships. We will elaborate on how situational resources in the workplace and VET school can be strengthened to support refugees effectively in their careers.

Keywords

refugees, temporarily admitted persons, pre-apprenticeship, integration, resources



1 Introduction

In Switzerland, as in many European countries, refugees face significant employment challenges, often lacking the necessary educational and vocational credentials for qualified work (Aerne & Bonoli, 2021; Spadarotto et al., 2014). To enhance the job prospects and improve the conditions for the integration of recognised refugees and temporarily admitted persons, the Swiss government has launched the Integration Agenda Switzerland IAS. The integration measures are intensified and start earlier, considering the refugees' specific needs, age, and background. The provisions focus on personal information, identifying and utilising refugees' potential, rapid language learning, targeted accompaniment and support, and familiarisation with the Swiss lifestyle. Young refugees are to be prepared for post-compulsory education, while adults are supported in acquiring skills to enter the workforce. Specific targets include that within five years, two-thirds of refugees aged 16 to 25 should be in post-compulsory education, and within seven years, half of all adult refugees should be sustainably integrated into the primary labour market.

One of the key initiatives of the integration agenda is the one-year pre-vocational programme *pre-apprenticeship programme to support integration* (PAI; German: Integrationsvorlehre INVOL; French: pré-apprentissage d'intégration PAI; Italian: Pre-apprendistato di integrazione PAI), which was launched in 2018 (Schweizerische Eidgenossenschaft et al., 2018; Stalder et al., 2024).

The PAI offers recognised refugees and temporarily admitted persons between the ages of 16 and around 35 the opportunity to prepare for a regular VET programme, find a meaningful job, and design their own career. At the same time, it aims to provide employers with qualified young people in sectors with a shortage of skilled workers. The PAI is offered in 18 cantons, covering all language regions in Switzerland and various occupational fields like catering and hospitality, construction, sales, and healthcare. Since 2021, the PAI has also been opened to late-arriving migrants from outside of the asylum system who do not have any vocational qualifications or who have not completed upper-secondary-level education.

From 2018 to 2023, more than 4000 people started a PAI programme, of which more than 80 per cent completed it. Upon completion, around 70 per cent have found a two- or three-year apprenticeship (Stalder & Schönbächler, 2024). Based on the successful outcomes of the PAI, the federal programme will be made permanent as a standard offer in the participating cantons starting in the summer of 2024.

1.1 Key elements of the PAI programme

The PAI is based on close inter-institutional cooperation between the federal government, the cantons, the employers and professional organisations, and the VET schools. Together with the cantons and professional organisations, the Swiss federal government has developed a framework and benchmarks for the design of the PAI (Staatssekretariat für Migration SEM, 2020a, 2020b). Key elements of the PAI include the combination of in-company training with school-based education and, depending on the sector, inter-company courses. In most cantons, the PAI is organised similarly to the two-year apprenticeship. Specific attention is paid to acquiring and improving language and academic skills (e.g., maths, digital skills), transferable competencies, and teaching work-related norms and values. Essentials also include targeted individual support for participants and in-company trainers provided by specialists.

1.2 The national research project

The introduction of the PAI is accompanied by a national research project conducted on behalf of the State Secretariat for Migration and co-financed by the Bern University of Teacher Education. The research project's main aim is to explore the educational and training quality of

the programme and its role in fostering the career success of the participants (Stalder et al., 2024; Stalder & Schönbächler, 2024). The trilingual study runs from 2019-2025 and includes six cohorts. It is based on a mixed-methods design with written surveys and/or interviews with participants, in-company trainers, teachers, coaches, and contact persons from all cantons involved in the PAI. Monitoring data collected at the cantonal level and data from the Federal Statistical Office¹ will also be analysed. Participants come from more than 90 different countries, most frequently from Eritrea, Afghanistan, and Syria. On average, they are 25 years old, and three-quarters are male.

Drawing on resource theory (Hobfoll et al., 2018), the job characteristic model (Hackman & Oldham, 1980), and their application to the field of dual VET (Lüthi & Stalder, 2018), it is proposed that both situational resources (i.e., high-quality learning environment in the workplace and vocational school) and refugees' individual and social resources contribute to their successful transition to a regular VET programme. Essential situational resources include high learning opportunities, close guidance from workplace supervisors, teachers, and coaches, and the possibility of transferring what is learned in one learning location to the other (Aarkrog, 2005; Stalder et al., 2021). A trustful and engaged collaboration of all stakeholders is vital to provide participants with a supportive environment (Wehrle et al., 2023). Crucial individual resources are, amongst others, refugees' language skills, effort, and career aspirations, which are essential drivers of positive career development (Billett, 2001; Wehrle et al., 2019). Social resources focus on PAI participants' living situations outside of the PAI and their social integration. Career success is assessed by objective (e.g., successful completion of the PAI, transition to and completion of regular VET programmes) and subjective criteria (e.g., participants' satisfaction with the PAI) (Stalder et al., 2024).

Expanding our knowledge about the effectiveness of the PAI programme, this contribution focuses on the less successful refugees: Those without access to the PAI or who left the programme before its end. The latter concerns about one out of six persons.

1.3 Access to the PAI

Access to the PAI is regulated by the national guidelines set by the state secretariat for migration (Staatssekretariat für Migration SEM, 2020b) and implemented by the cantons. The cantons ensure that the PAI aligns with their educational system. They decide on the number of available PAI places and which occupational fields they want to offer. Refugees and temporarily admitted persons must apply for the PAI with a recommendation from a specialist, such as a municipal reference person. Admission is based on assessing their potential at a career guidance centre. This assessment evaluates the candidates' work and school experience, language skills, career goals and wishes, and individual resources. It evaluates not only whether candidates can cope with the requirements of the PAI but also their ability and capability to succeed in a regular apprenticeship afterwards.

Refugees and temporarily admitted persons may face several obstacles in accessing the PAI due to their challenging life paths and living situations in the host country. These difficulties can include ongoing mental and physical health issues, insufficient language or academic skills, lack of social support, challenging housing conditions, and insufficient childcare facilities for those with children (Aerne & Bonoli, 2021; Gei & Matthes, 2017). Findings from the first PAI cohort show that many refugees and temporarily admitted persons live in difficult housing situations with limited opportunities to find a quiet place to learn and relax (Stalder & Schönbächler, 2020).

¹ Bundesamt für Statistik: Längsschnittanalysen im Bildungsbereich LABB [Federal Statistical Office: Longitudinal analyses in the education sector LABB]

Aiming to learn more about PAI candidates not taking part in the programme, our research questions are: 1a) What characterises refugees and temporarily admitted persons who apply for a PAI but are not admitted to/do not start with the programme? 1b) Which follow-up solutions open up for the refugees and temporarily admitted persons concerned?

1.4 Early leaving from the PAI

Early leaving from the PAI might have different reasons, each pointing to limited situational, individual, or social resources, which may accumulate and lead to a specific misfit with the PAI programme. This misfit can refer to, for example, the requirements and characteristics of the job and the occupational/vocational field of the PAI or the learning situation in the company and school (Coleman Gallagher et al., 2021; Stalder & Schmid, 2016). According to the employers' survey of the first PAI cohort, insufficient prior schooling and language skills (poor P-J fit), a lack of interest to be trained in the specific occupational field (poor P-V fit), health reasons, or the desire for gainful employment (poor P-J fit) are the main reasons of participants not to finish the PAI (Stalder & Schönbachler, 2020). Research on early leaving from apprenticeships suggests that the risk for early leaving might be exceptionally high for refugees and temporarily admitted persons with poor language and maths skills, those unable to start the PAI in their desired occupation, those who feel unsupported by their in-company trainers, and those working in fields with skills shortage (Kunze et al., 2023; Maué et al., 2021; Stalder & Schmid, 2016).

Aiming to learn more about PAI candidates who leave the programme early, our research questions are: 2a) What characterises refugees and temporarily admitted persons who leave the programme early? 2b) Which follow-up solutions open up for the refugees and temporarily admitted persons concerned?

2 Data

We use cantonal and national monitoring data of 1500 applicants from the first three PAI cohorts to elaborate on our research questions. Data provided by the cantons include information about the candidates' age, gender, language skills, and suitability for the PA. For those who started with a PAI, the cantons described the occupational field of the PAI and indicated whether the participants finished it successfully. For those who did not start with a PAI or left it early, the cantons described whether the candidates/participants had found another educational programme. Data provided by the Federal Statistical Office included information about the candidates'/participants' year of birth and gender, the age at which they arrived in Switzerland, their country of origin and their migration status.

3 Analytical strategy and expected results

First, we examine the individual resources of those who did not follow the programme and explore their alternative pathways and opportunities to enter a regular VET programme directly. We compare their resources and career success with refugees and temporarily admitted persons participating in the PAI programme. We assume that those who did not enrol in the PAI have more limited individual resources than participants and, consequently, have lower chances of entering a regular VET programme.

Second, we analyse the individual resources of those who left the programme early and describe their pathways after the early leaving. Moreover, we compare the early leavers' resources with those of refugees and temporarily admitted persons who successfully finished the PAI. Of particular interest is finding out how many of them re-enter an educational programme.

4 Discussion

The findings will be discussed in the light of resource theory and previous findings about displaced people's educational and employment pathways. We will highlight the challenges and risks of educational measures such as the PAI and reflect on its contribution to integrating refugees and temporarily admitted persons in education and work.

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Biographical notes

Dr Barbara E. Stalder is a professor at the Institute of Upper Secondary Education, Bern University of Teacher Education, Switzerland. Her research interests are student engagement and learning, career development in VET, and career success over the life course.

Dr Marie-Theres Schönbächler is the former director of the Centre for Educational Evaluation of the Bern University of Teacher Education, Switzerland. She is co-head of the national evaluation and research project INVOL/PAI/PTI.

Felder, A., Caprani, I., Kammermann, M., & Fedrigo, L. (2024). Transition of refugees into vocational training and guidance in companies. In N. Kersh & B. E. Stalder (Eds.), *Trends in vocational education and training research, vol. VII. Proceedings of the European Conference on Educational Research (ECER), Vocational Education and Training Network (VETNET)* (pp. 144–153). VETNET.
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Transition of Refugees into Vocational Training and Guidance in Companies

Felder, Alexandra

alexandra.felder@sfuvet.swiss, Swiss Federal University for Vocational Education and Training

Caprani, Isabelle

isabelle.caprani@sfuvet.swiss, Swiss Federal University for Vocational Education and Training

Kammermann, Marlise

marlise.kammermann@sfuvet.swiss, Swiss Federal University for Vocational Education and Training

Fedrigo, Laurence

laurence.fedrigo@sfuvet.swiss, Swiss Federal University for Vocational Education and Training

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Abstract

Context: The concern of integration of refugees into the labour market has become increasingly important in Switzerland in recent years. In 2018, a pre-apprenticeship integration programme (PAI) has been introduced by 18 cantons, with the aim of preparing refugees for dual vocational education and training leading to a Swiss VET certificate. Among the various players who collaborate in the PAI, in-company trainers play a key role. Guidance in companies has a major influence on the learning of work-related skills and thus on the development of apprentices' professional skills (Stalder et al., 2024). The literature on workplace learning highlights the importance of workplace guidance for the success of VET (Billett, 2001; Swager et al., 2015). But while the importance of learning conditions in companies has been documented in the field of workplace learning in general (Mikkonen et al., 2017; Swager et al., 2015), we still know little about guidance with refugees within training companies.

Approach: The research project conducted at SFUVET addresses the issue of vocational training for recently arrived refugees in Switzerland and adopts a psycho-social, sociological and workplace learning interdisciplinary approach. Taking into account the complexity of the issue of guidance provided by various players during the apprenticeship in a company, we are focusing on support of agency development, addressing the research question "What are the different guidance practices for refugee apprentices in companies and how can they foster the development of agency?" Various qualitative research methods are mobilised to bring a comprehensive understanding to complex research questions and considering different perspectives. Interviews with in-company trainers and former PAI apprentices are at the heart of the study, but we also lead professional practice analysis groups with trainers and expert interviews.

Expected findings: This research helps understanding workplace-guidance provided to refugees who find themselves in a particularly complex period of transition, and whose life history



and current living conditions interfere with their learning opportunities. Thus, our research will contribute to comprehension of how oppressed agency can develop through the acquisition of new skills and responsibilities during in-company training. All in all, our findings will offer insights into how the learning environment and the guidance provided during vocational training can either foster or impede apprentices' agency in training, at work, and in daily life.

Keywords

refugees, vocational education and training, workplace guidance, agency, transition process

1 Introduction

Refugees have often experienced danger and violence (Fedrigo et al., 2021; Onsando, 2014; Pestre, 2019). When they arrive in the country of exile, they face social exclusion linked to their legal status, and socio-economic insecurity (Bolzman, 2016; Felder, 2016). They have to rebuild their lives in a new socio-cultural context and learn the local language. Their education and professional experiences are often not recognised (Bolzman, 2016; Luimpöck, 2019; Wehrle et al., 2018). These factors influence their integration into the labour market and, during vocational education and training (VET), have an impact on their ability to learn and the development of agency. In this specific learning context, in-company guidance demands particular attention. While the importance of learning conditions in companies has been documented in the field of workplace learning (Mikkonen et al., 2017; Swager et al., 2015), we know little about guidance with refugees within training companies.

After completing the asylum procedures, recognised refugees and temporarily admitted persons face a long and arduous path towards social and professional integration. Their employment rate remains significantly lower than that of the resident Swiss or foreign population, between 41% and 43% in spring 2024¹. The difficulties they encounter are manifold and reflect great vulnerability linked to living conditions, the ordeal of violence and persecution (Aerne & Bonoli, 2021; Onsando, 2014), training trajectories in sometimes defaulting education systems (Aerne & Bonoli, 2021), the lack of local language proficiency, non-recognition of diplomas and acquired skills, and to discrimination in recruitment (Keyhani, 2020; Roesti, 2019).

The Swiss government has set up the "Swiss Integration Agenda"² with the aim to improve the integration of refugees and temporarily admitted persons into the labour market. In addition, it launched the "Integration Pre-Apprenticeship" (PAI) pilot programme through the State Secretariat for Migration (SEM) in 2018, with the intention of rapidly and sustainably improving the professional and the language skills of refugees and temporarily admitted persons in a given vocational field over a period of one year, in order to start initial VET (Scharnhorst & Kammermann, 2019). In fact, VET through a dual apprenticeship combining practical work in companies and theoretical courses in vocational schools has great potential for integrating refugees into the labour market, enabling them to learn a trade³ and to find qualified work (Aerne & Bonoli, 2021).

The aim of the programme (SEM, 2017) is to make better use of the work potential of refugees and temporarily admitted persons, to reduce their dependence on social assistance and to ensure the next generation workforce in occupations with a skills shortage (Kammermann et al., 2022; Stalder et al., 2021). The PAI was set up with the cooperation of 18 cantonal

¹ <https://www.sem.admin.ch/sem/fr/home/publiservice/statistik/asylstatistik/archiv/2024/05.html>

² <https://www.sem.admin.ch/sem/fr/home/integration-einbuengerung/integrationsfoerderung/kantonale-programme/integrationsagenda.html>

³ Noting that the 'dual' training system actually includes inter-company courses as a third learning site. They are offered by trade associations in certain cantons also in PAI.

authorities, 12 trade associations, VET administrations and the SEM. It offers 800 to 1,000 training places per year and is implemented by the cantons, which are responsible for informing, selecting, and supporting apprentices⁴. This one-year programme is divided in two parts where apprentices generally work in a company three days and attend school for two days a week. The training includes the development of language skills in the workplace, basic school skills, norms and values, the main professional, technical and transversal (personal, social) skills, basic practical knowledge and skills in the company (Scharnhorst & Kammermann, 2019). Ultimately, apprentices take an assessment and receive a certificate enabling them to follow a two- to four-year apprenticeship leading to a recognised VET certificate. A wide range of vocational fields are on offer, such as automotive, agriculture, bakery and confectionery, chemicals, retail sales, railway construction, health trades, meat processing, catering, gastronomy, hotel industry, graphic arts industry, logistics, mechanics and automation, cleaning, building technology, media practice and construction trades.

Guidance is one of the pillars of workplace learning and the integration of apprentices within companies (Billett & Somerville, 2004). Companies taking part in the programme offer guidance within their teams to enable the apprentices to achieve the apprenticeship objectives defined in accordance with the ‘competence profiles’ drawn up by the trade associations.

Some initial studies have been carried out on the PAI. The work of Aerne and Bonoli (2021) for example analyses the reasons of the broad participation of companies and trade associations. An evaluation study of the programme commissioned by the SEM (Stalder & Schönbächler, 2019) highlighted the importance of strengthening inter-institutional and inter-cantonal cooperation. Furthermore, one aspect of particular interest to our research is the lack of exchange and communication between different companies mentioned by the trainers in companies (idem). However, the evaluation study (Kammermann et al., 2022; Stalder et al., 2021) concluded that $\frac{3}{4}$ of the apprentices completing PAI proceed to a certifying two- to four-year apprenticeship.

Moreover, Stalder et al. (2021) pointed out that the diversity and the number of tasks performed in the company are of significant influence on the practical skills’ level achieved by apprentices. This result highlights the importance of guidance quality within companies.

The research project addresses the issue of vocational training for recently arrived refugees in Switzerland, and adopts a psycho-social, sociological and workplace learning interdisciplinary approach. Considering the complexity of the issue of guidance provided by various players during the apprenticeship in a company, we are focusing on support of agency development, addressing the research question "*Which are the different guidance practices for refugee apprentices in companies and how can they foster the development of agency?*"

2 Theoretical framework

2.1 Exile, transition and education and training

While refugees have suffered multiple psychological, social, emotional and economic traumas (Newman et al., 2018), arriving in the country of exile is an upheaval that also confronts them with numerous obstacles such as learning a new language, non-recognition of acquired certificates and skills, stigmatisation and low social capital (Wehrle et al., 2018).

Migration and exile confront people with a range of constraints, but also offer new opportunities. Hence, as a transition process, these can also be experienced as an opportunity for development when meaning can be made of their experience (Almudever, 1998; Baubion-

⁴ In 2021, the programme has been extended to young adults from EU or EFTA member states and third countries (PAI+). Circulaire Dépôt pour le programme pilote préapprentissage d’intégration plus (PAI+), Confédération suisse (2020).

Broye, 1998; Baubion-Broye & Hajjar, 1998; Zittoun, 2008, 2012). On this background, acquiring new knowledge and skills helps adapting to a new social and cultural context, such as learning a language or a trade, in order to interact in society and evolve in everyday life.

Periods of transition (Zittoun & Perret-Clermont, 2002) often bring adults into education and training (Bourgeois, 1996). As a process of transition, the training period may also reflect refugees' ambiguity between the fear of loss, for example of professional identities already formed in the past (Luimpöck, 2019; Wehrle et al., 2018), and the chance of vocational development.

Wehrle et al. (2018) emphasise the importance of stability and a feeling of security for refugees to be able to invest effectively in a vocational project. Given a feeling of security and a path to vocational training, workplace training in a company is particularly beneficial, as it provides an opportunity to build on a professional network and practical experience in the world of work with its work conditions and expectations. This workplace training provides a better understanding of the education system, regulations, cultural practices, access to resources and knowledge as well as of concrete training options.

2.2 Affordances, guidance and agency

Learning conditions, affordances, workplace guidance and agency are key concepts for workplace learning. Workplace guidance is essential for the successful completion of initial VET, since it is decisive not only for learning the trade, but also for constructing the meaning in training (Capdevielle-Mougnibas, 2015). In a negative case, it can lead to exclusion and maintain social inequalities (Duc, 2016; Filliettaz et al., 2013) and even lead to a breach of the apprenticeship contract (Capdevielle-Mougnibas, 2015; Lamamra & Masdonati, 2009).

According to Billett (2001), learning in the workplace is composed of a duality between the learner's commitment and *affordances*: companies set up a framework enabling apprentices (and employees) to take part in a variety of activities and tasks, and thus gain experiences serving their learning. The concept of affordances encompasses available structures as "invitations" for engagement (Goller & Billett, 2014). These structures differ in their effectiveness for learning and need to be engaged by the learner according to their personal perception and motivation (Billett, 2009). Affordances therefore are preconditions for people's commitment (Goller & Billett, 2014, p. 10) and differ from one company to another. Companies are dynamic places undergoing various internal and external pressures. Their corporate history and culture, work organisation, treatment of employees and performance all change over time (Unwin et al., 2007) and thus affect guidance provided to apprentices. Research carried out in Switzerland on workplace trainers and their guidance approach and practices (Lamamra & Besozzi, 2019) reveals the decisive role played by the trainers by setting up a suitable framework to carry out their role, such as allocating sufficient time for guiding tasks as well as recognition and remuneration of their role.

Guidance, understood as any form of support for socialisation and acquisition of occupational skills (Billett, 2002; Swager et al., 2015, p. 361), is part of the affordances. According to Swager et al. (2015, p. 367) effective affordances must be adapted to apprentices' needs and agency. They distinguish three sets of actions supporting both learning and integration into the community of practice (Lave & Wenger, 1991), namely psycho-social, structuring and didactic interventions.

However, guidance goes beyond the direct relationship between a trainer and the apprentice. Indirect guidance (Billett, 2001; Mikkonen et al., 2017) takes place within the wider training framework, encompassing arrangements that allow apprentices to have access to observation and listening to more experienced colleagues.

According to Goller and Billett (2014), *agency at work* is defined by active engagement in work and interactions, intentionality and introspection. More specifically, it refers to "the active

and directed component of an individual's thinking and behaviour, which can manifest itself as much in confrontation and opposition, as in marked adherence to social realities" (Billett, 2009, p. 43). Agency is also deployed in response to affordances. It is therefore not based solely on the learner's individual ability but bound to the learning context and its affordances (Evans, 2007). It supports the learning process, but also helps becoming a member of the community of practice (Ferm et al., 2018; Wenger, 1998), and therefore has an influence on occupational development (Goller & Billett, 2014, p. 10). Agency is particularly evident when individuals pursue their goals, seize opportunities, and transform unfavourable situations to their advantage (Nagels et al., 2018, p. 5). However, it extends beyond the strict confines of the learning process to encompass action regarding the conditions and relationships within the team. Apprentices' agency is also at the heart of our study, i.e., how it is taken into account in guidance and how it can be strengthened. Here, we refer to two approaches, namely agency at work, addressed by research on workplace learning, and the personal agency of refugees.

2.3 Exile and personal agency

For refugees undergoing a period of transition, the question of coping, understanding and taking control of their lives is important beyond education and training. In this context, the concept of personal agency allows to grasp people's ability to influence their life circumstances and control their actions (Bandura, 2006). According to Bandura (2006), personal agency is characterised by *intentionality, forethought, self-reactiveness and self-reflectiveness*. Similar to agency at work, the aspects of awareness and reflection are important, as is the intentional nature of action (Billett, 2006). In addition, self-efficacy, referring to a person's belief in their ability to organise and carry out action and achieve desired results (Bandura et al., 2007), is an essential variable in human agency. Previous studies highlighted that refugees' life trajectory, coupled with arrival countries' resettlement policies, tend to dramatically diminish their agency (Onsando, 2014; Scheibelhofer & Täubig, 2019). Before fleeing, refugees' lives are marked by danger, violence and war, which can lead them to experience the feeling of being treated as an object without the possibility to act according to their will (Onsando, 2014). Their journey to the country of exile is marked by violence and a lack of control over a trajectory that can often span several years. However, the decision to flee can be understood as a first order agentic ability (Onsando, 2014), as is the very fact of surviving in these difficult circumstances. At their arrival to the country of exile, refugees are at risk of experiencing marginalisation and social exclusion, which in turn negatively impact their ability to develop agency (Hayes et al., 2008). European countries' migration policies can have a negative long-term impact on their empowerment (Bertrand, 2020; Luimpöck, 2019; Scheibelhofer & Täubig, 2019), particularly by maintaining them in a state of passivity (Bertrand, 2020). For Scheibelhofer and Täubig (2019) the "migratory environment" constitutes a restrictive and inhibiting context for refugees' agency, as they are de facto excluded from the labour market by the multiple restrictions (e.g., access to language learning, restricted individual rights during the asylum procedures, non-recognition of previous professional experience and diplomas) (Bertrand, 2020; Bolzman, 2014).

Hence during asylum procedures, people experience the feeling that work is forbidden to them (Scheibelhofer & Täubig, 2019) - even if they are formally entitled to it, that it is practically impossible to learn the language and the doors to life in society are closed to them. This marginalisation is even stronger for temporarily admitted persons (Atitsogbe et al., 2020; Scheibelhofer & Täubig, 2019). While waiting for asylum decision, people face long times of deprived privacy and self-determination leading to passivity and resignation (Scheibelhofer & Täubig, 2019).

VET can be an initial opportunity for refugees to develop agency in the country of settlement (Onsando, 2014). In this view, it is therefore important for VET institutions to provide a

welcoming and secure environment for apprentices and to be aware of the need to recognise their life history as refugees.

As the literature presented above points out, agency is oppressed by refugees' trajectories and current living conditions. In this sense, supporting refugee apprentices within the company by helping to develop their agency becomes a central issue, and agency development is, as we pointed out before, not relying solely on individuals, but strongly connected to their living, learning and working environment and their relations.

Research on agency in the context of work restricts its analyses to aspects of working and learning. However, based on the literature on the needs of reconstructing the lives of refugees, we believe that developing agency within a company goes beyond aspects of work and influences the construction of life more generally. This is in line with socialisation theories based on the interdependence of different areas of life (Baubion-Broye & Hajjar, 1998). In other words, agency developed in the context of work will have an impact also on the private and social life.

3 Methods

We adopted a qualitative approach to develop in-depth and well-founded knowledge about the role of in-company guidance and refugees' and temporarily admitted persons' development of agency. To answer the research questions, we favour a comprehensive approach enabling us to capture various points of view from professionals involved in PAI and initial VET, and PAI apprentices themselves. We favoured a triangulation of different data (Flick, 2011) to foster a supported and sustained understanding of guidance processes and agency. Therefore, we constructed our interview guidelines around the concepts of guidance and agency. The study is conducted in four Swiss cantons, which were selected to represent a diversity in terms of organisation, trades, and linguistic regions, as well as the number of participants in the PAI programme.

Various qualitative research methods are mobilised to bring a comprehensive understanding to complex research questions and considering different perspectives. Interviews with company trainers and former PAI apprentices are at the heart of our research.

Forty qualitative interviews (Blanchet, 1991; Flick, 2009) are conducted with *people in charge of in-company training in different trades*. As key persons for establishing a training relationship, they help us understand guidance practices. In addition, we seek to highlight trainers' representations of refugees' life and training paths, their skills and difficulties, their learning progress, and the development of their capacity to action, according to the concept of agency, both in vocational training, and also in their lives outside work. A variety of companies are selected in terms of size, professions, and type of management, to provide a broad view of the different forms of guidance.

Qualitative interviews with 20 *former PAI apprentices*, some of them from the same companies as the trainers we interview, enable us to capture their own experiences with the training. We chose to interview former PAI apprentices to benefit from their more distant perspective of guidance and learning. Above all, we seek to gather information on the next stage in their training or professional pathway, and to adopt a subjective perspective on the evolution of their agency. Our focus is on their experiences with training, their activities during in-company training and the received guidance, also in relation to their life trajectory, training achievements, current living conditions and plans for the future. The sample is diversified in terms of gender, age, migratory background, occupation and training path.

Professional practice analysis (PPA) groups with people in charge of vocational training in companies will complement the interviews and provide a deeper understanding of the various guidance practices and the context in which they are deployed, as well as an opportunity to discuss experiences and difficulties encountered. Each group consisting of six to ten people will

meet twice within a year (leading to a total of six PPA). This analysis of professional practices in a collective setting is part of an action-research approach, and the group discussions are designed as ongoing training for participants.

To gain a deeper understanding of the implementation of the PAI (e.g. rules, routines, mechanisms, collaborations), as well as of the constraints and expectations of the world of work with regard to PAI apprentices, we also conduct twelve expert interviews (Przyborski & Wohlrab-Sahr, 2010) with various players involved with PAI apprentices and companies, such as career counsellors, professional coaches, teachers from vocational schools, social assistants, representatives from cantonal authorities and trade associations. The aim of these interviews is to understand what forms of support are offered to PAI apprentices and to gain insight into particular challenges in vocational training for refugees and temporarily admitted persons.

We rely on *PAI statistics* (i.e., monitoring of trajectories after the PAI and success of the programme in the four selected cantons, and SEM data based on the national evaluation study) to establish systematic data on the PAI within the cantons over the years.

The interviews are analysed using thematic analysis (Paillé & Mucchielli, 2012), identifying and systematically grouping themes that emerged from the interviews and professional practice analysis. We are also favouring an inductive approach (Bardin, 2013) when new themes emerge during data analysis.

The collection of a variety of data within companies (individual interviews with trainers and former PAI apprentices, PPA groups) will give rise to *case analyses* in order to describe guidance given to refugee apprentices and the development of agency in its various contexts (Baxter & Jack, 2010).

4 Expected results

While there is a consensus in the cited literature on the importance of guidance for apprentices in companies, there remains a gap on studies involving refugees. This research therefore helps understanding workplace-guidance provided to refugees who find themselves in a particularly complex period of transition, and whose life history and current living conditions interfere with their learning opportunities. Thus, our research will contribute to comprehension of how oppressed agency can develop through the acquisition of new skills and responsibilities during in-company training. All in all, our findings will offer insights into how the learning environment and the guidance provided during vocational training can either foster or impede apprentices' agency in training, at work, and in daily life.

Preliminary results have been presented at the conference.

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Biographical notes

Dr Alexandra Felder is a Senior Researcher at the Swiss Federal University for Vocational Education and Training SFUVET. Her publications focus on psychosocial transitions, education and training of young and adult migrants, workplace learning and development of vocational identity.

Dr Isabelle Caprani is a professor, head of the research area “Integration in VPET and the labour market” at SFUVET. Her recent publications are interested in apprentices’ working conditions and how cultural and gender heterogeneity are managed within VET schools.

Dr Marlise Kammermann is a Senior Researcher and Senior Lecturer at the Swiss Federal University for Vocational Education and Training (SFUVET). Her main area of interest is the inclusion of disadvantaged people in education and training, the labour market, and society.

Dr Laurence Fedrigo is a Senior Researcher at SFUVET and at the University of Applied Sciences and Arts, Western Switzerland. Her research focus on the population of refugees and their access to education and work, meaning of work, career choices, and PhD holders’ trajectories outside academia.

Laczik, A., Kersh, N., Dabbous, D., Bayrakdar, S., & Emms, K. (2024). The role of VET in supporting young migrants in England: An exploration of issues, challenges, and good practices. In N. Kersh & B. E. Stalder (Eds.), *Trends in vocational education and training research, vol. VII. Proceedings of the European Conference on Educational Research (ECER), Vocational Education and Training Network (VETNET)* (pp. 154–157). VETNET. <https://doi.org/10.5281/zenodo.13238452>

The Role of VET in Supporting Young Migrants in England: An Exploration of Issues, Challenges, and Good Practices

Laczik, Andrea

alaczik@edge.co.uk, The Edge Foundation

Kersh, Natasha

n.kersh@ucl.ac.uk, UCL Institute of Education

Dabbous, Dana

ddabbous@edge.co.uk, The Edge Foundation

Bayrakdar, Sait

sait.bayrakdar@kcl.ac.uk, King's College London

Emms, Kat

kemms@edge.co.uk, The Edge Foundation

This paper is part of the symposium on *Migrants' Transition to Successful Pathways and Integration: Supportive Mechanisms and Barriers* (<https://doi.org/10.5281/zenodo.13237483>).

Abstract

Context: Vocational education and training (VET) in England offer young migrants one possible way to gaining qualifications of labour market value. This study examines VET's role in aiding young migrants' integration into education, the labour market, and communities. Key questions focus on how VET support young migrants' educational progression, what challenges they face, and what are the skills they develop for economic and social integration.

Approach: To explore the experiences of young migrants, we adapt Hodkinson and Sparke's careership theory, focusing on life-course events and decision-making. Using qualitative interviews and focus groups with 16-21-year-olds from diverse migrant backgrounds, we examine their educational trajectories and the unique challenges they face in the migration context.

Findings: Our results reveal diverse experiences for migrant youth, with ESOL being essential for accessing further education and training. Mastering English is seen as a vital first step, yet barriers like discrimination and social isolation influence their educational engagement. Many young migrants expressed concerns about being placed in courses that did not match their interests and/or ambition, and many were placed on lower-level qualifications. This is a particular issue as funding ceases at the age of 18. Additionally, the requirement of Level 2 English and maths qualifications are considered as barriers to their progression and limiting options.

Conclusions: Our study indicates young migrants need better support, funding, and tailored career guidance in vocational education and training (VET).

Keywords

young migrants, VET, career, integration



1 Context

England's vocational education and training system (VET) has been criticised for several decades (Wolf, 2011). While its shortcomings have been explored to some extent (Chankseliani et al., 2016; Lupton, 2021), experiences of VET for young people with a migrant background did not receive much attention (McPherson et al., 2024). This scoping study explores issues about how VET helps young migrants integrate into the education system, the labour market, and local communities and societies. By looking at the role of VET in their transition through education and the labour market, the study presents (a) some of the core issues young people from different migrant backgrounds experience, (b) the challenges colleges and private providers face in providing effective VET offerings and (c) good practices supporting young people to achieve favourable outcomes. The project will also aim to identify and explore the role of VET in facilitating the social and economic integration of migrants. Specifically, the following questions will be explored:

- How do VET programmes support young migrants' progression and career aspirations?
- What are the opportunities and challenges young migrants face integrating into the education and training system and how do they overcome them?
- What skills do young migrants develop to facilitate their economic and social integration?

2 Approach

To explore the experiences of young people with a migrant background, we use Hodkinson and Sparke's careership theory (Sparke, 1997), which has been central in youth transition studies. Drawing on the concepts explored in this theory, such as the relevance of life-course events that are simultaneously occurring, pragmatically rational decisions young people make and the impact of their horizons for action, we adapt carriership theory to explore the challenges young people face in the migration context and how they navigate their education and training trajectories. We argue that careership theory is well-suited to examine the challenges unique to the migration experience.

To realise our research aims, we use qualitative, in-depth interviews and focus groups with young people (aged 16-21) from different migrant backgrounds, migration histories and educational trajectories who continue their education in further education colleges and the practitioners who actively work with and support young people with migrant backgrounds. Within this scoping research, we interviewed sixteen young learners in four focus groups and two college practitioners who work with migrant young people, and one national/regional English for speakers of other languages (ESOL) coordinator. Young migrants represented a diverse group; they were between the ages of 16 and 21 years, and they arrived in England between 1 and 17 years. Their country of origin included, for example, Kurdistan, Czech Republic, Slovak Republic, Afghanistan, Romania, Sudan, Syria, and Iraq.

3 Findings

Our results show diverse experiences for migrant young people. Our findings have indicated that ESOL plays a crucial role in enabling migrants to access wider learning and training opportunities (e.g. VET). For many, mastering a basic level of English is perceived as a stepping stone before they can progress with their education and training. In addition, this initial language foundation is not purely of linguistic value; it provides a safe and supportive environment where migrants can build confidence and skills before gaining the confidence to embark on VET courses. This transition and integration into mainstream courses can be an overwhelming experience for young migrants. They may feel isolated or inadequately prepared, and without adequate support, they might hold themselves back from fully participating. Specifically,

as highlighted by our interviews with an ESOL regional coordinator, there are additional barriers that migrants face, such as poor mental health, trauma, and social isolation, which can affect their ability to learn effectively. This adds to the complexity of accessing and engaging with educational provision. Consequently, ESOL providers often find themselves addressing these issues alongside language teaching. However, tailoring ESOL provisions to meet the diverse needs of different migrant groups can present a significant challenge. Learners' diverse backgrounds and levels of English proficiency require an individualized approach, yet practical constraints often lead to a one-size-fits-all solution. This can result in the specific needs of individual learners being overlooked, making it more difficult to provide the targeted support they require.

Most young people spoke of their colleges favourably, although they mentioned various issues that may hinder progression. Among these, professional and sector-specific spoken and written language skills were the most prevalent. They also pointed out a mismatch between their aspirations and the courses they were placed in. This was sometimes due to their limited language proficiency but also to school and college staff not understanding the qualifications they gained in their country of origin. However, this happened for some already in the school prior to starting in the FE college. This delay in progressing to higher-level courses meant that some of the interviewees had to re-evaluate their original career plans. Nevertheless, most young migrants acknowledged the valuable skill set they developed in their current programme.

Another challenge represented the English and maths qualifications that are necessary to progress to higher-level qualifications. These qualifications have prevented some young migrants from continuing with their educational aspirations, even if these particular aspirations were practical and did not necessitate the required levels of English and maths.

Practitioners in our study highlighted a range of complementary topics that were rarely recognised by young people in the study, namely young people being placed in lower-level courses than their ability due to their English language skills. This caused delayed progression and had a knock-on effect as funding ceased at the age of 18. This limited their options at a crucial point in their education paths.

4 Conclusions

Our results suggest that VET is a valuable path for many young migrants. However, our study highlights a gap in migrant-specific support and guidance in the VET area, a need to overhaul the funding system to support their career aspirations, and a need for more comprehensive and tailored career information, advice, and guidance for young people with a migrant background.

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Biographical notes

Dr Andrea Laczik is the Director of Research at the Edge Foundation. Her research interests include, for example, VET and apprenticeships at all levels, skills development, youth transitions. She also has an interest in comparative and international education.

Dr Natasha Kersh is an Associate Professor at the UCL Institute of Education (UK). Her research interests and publications relate to the study of VET, school-to-work transitions, workplace learning and adult education in the UK and international contexts.

Dr Dana Dabbous is an Education and Policy Senior researcher at the Edge Foundation. Dana's main areas of research interest are in further education, vocational education and training, understanding good practice across all levels of education and labour skills shortages across the UK.

Dr Sait Bayrakdar Sait is a Postdoctoral Research Associate in the School of Education, Communication and Society at King's College London and an expert in quantitative social research, social stratification, and intersectionality. He has previously conducted research on young people's housing transitions and on the life course transitions of LGBTQI+ individuals.

Kat Emms is an Education and Policy Senior researcher at the Edge Foundation. Kat's main areas of research are in higher education, vocational education and training, skills shortages in the economy and employability skills.

Keser Aschenberger, F. (2024). Pathways to integration: Understanding the educational trajectories and transformative learning experiences of Turkish migrant women in Germany. In C. Nägele, B. Esmond, N. Kersh, & B. E. Stalder (Eds.), *Trends in vocational education and training research, vol. VII. Proceedings of the European Conference on Educational Research (ECER), Vocational Education and Training Network (VETNET)* (pp. 158–162). VETNET. <https://doi.org/10.5281/zenodo.13238683>

Pathways to Integration: Understanding the Educational Trajectories and Transformative Learning Experiences of Turkish Migrant Women in Germany

Keser Aschenberger, Filiz

filiz.keser-aschenberger@donau-uni.ac.at, University for Continuing Education Krems

This paper is part of the symposium on *Migrants' Transition to Successful Pathways and Integration: Supportive Mechanisms and Barriers* (<https://doi.org/10.5281/zenodo.13237483>).

Abstract

Context: Educational research underscores the importance of education for integrating migrants, yet migrant women remain underrepresented in studies. This research investigates the learning biographies of Turkish migrant women in Germany, emphasizing their educational trajectories and personal experiences. Key questions address their perceptions of learning, influence of education on labour market inclusion, and the connection between learning and life courses.

Approach: This study employs a life course approach through in-depth narrative interviews with Turkish migrant women, emphasizing their educational journeys. Conducted in fall 2023 in Germany, it details four case studies to examine the objective and subjective meanings of their experiences.

Findings: The ongoing study reveals that highly skilled women, particularly first-in-family academics, have educational journeys shaped by early integration into the German system and a strong commitment to lifelong learning. Despite challenges like language barriers and cultural differences, they view education as essential for personal and professional growth. These women navigate the complexities of migrant status and gender roles, facing stereotypes and balancing family responsibilities while striving to maintain their cultural identities.

Conclusions: This study highlights the complexities of education for migrant women, emphasizing its potential for empowerment while acknowledging ongoing challenges that hinder true inclusion and necessitate further research and policy efforts.

Keywords

women, learning biography, migration, inclusion, VET, participation to education

1 Introduction

It is well-established in educational research and sociology that education (formal, non-formal and informal) plays a key role in the inclusion and integration of migrants into hosting societies socially, culturally, economically, and politically (Fejes & Dahlstedt, 2017, Shan, 2015). However, a close look at the research reveals that there is a lack of representation of migrant women, even though there were recent critical and feminist studies focusing on migrant women, especially in Europe (Erel, 2007), and especially inquiring about the learning experiences and processes of embedded within their life biographies.



Migration disrupts individuals' accumulated biographical knowledge and experiences, compelling them to adapt to new socio-cultural frameworks and values. This process of adaptation necessitates restructuring their life narratives, a complex transformation that has profound implications for their sense of identity and belonging (Morrice, 2012). In this context, education emerges as a critical tool for both the restructuring of biographies and the integration of migrants into their new social environments. It plays a pivotal role in facilitating social inclusion, offering a pathway through which migrants can navigate the challenges of resettlement and reconstruct their identities within the host society (Morrice, Shan & Sprung, 2018).

Morrice (2011) highlights the importance of conceptualizing learning as a dynamic response to life events, emphasizing that the process involves continuous deconstruction and reconstruction of the self. This ongoing reconstruction reflects the struggle migrants face in proving and gaining acceptance for their pre-existing cultural and social capitals in a new and often unfamiliar context. Education thus becomes a site of both opportunity and challenge, where migrants engage in the arduous task of negotiating their identities and striving for recognition in their new environments.

The effects of education on migrant integration are multifaceted, with both positive and negative outcomes. On the one hand, education can empower migrants, providing them with the skills and knowledge necessary to thrive in their new surroundings. On the other hand, it can also expose them to exclusionary practices and reinforce existing inequalities, particularly when their prior experiences and qualifications are not recognized or valued (Morrice, 2011; Guo, 2010). This duality underscores the complex role of education in the migration experience, highlighting the need for more inclusive and equitable educational practices that recognize and build upon the diverse backgrounds of migrant learners.

The existing literature on migrant women, despite recent advancements through critical and feminist studies, reveals a significant underrepresentation of their experiences, particularly within the European context (Erel, 2007; Biehl & Danis, 2020). When migrant women are represented, they are often subject to orientalist portrayals or stereotyped as passive figures who are obstacles to modernization (Erel, 2007). Such depictions fail to capture the complexity of their lives and their active roles in their integration and development.

Moreover, the intersection of vocational education and training (VET) and migrant women remains largely unexplored in current research. This gap highlights the need for more nuanced studies that focus on how VET programs impact the lives of migrant women, particularly in terms of their integration, empowerment, and social mobility. Addressing this gap is crucial for providing a more accurate and inclusive representation of migrant women in VET research, thereby challenging existing stereotypes and contributing to a more comprehensive understanding of their experiences.

The primary objective of this study is to explore the learning biographies of Turkish migrant women in Germany who have different education and migration histories. I want to understand their educational trajectories, investigate these learning activities' role in their personal lives and integration, and reflect on individual and systemic differences. I aim to depict the participation in learning and the transformative role of learning for Turkish migrant women in German society and understand how their learning biography aligns with their life course and transition. Questions that guide my study are:

1. How do Turkish migrant women construct perceptions of learning and education, and in what ways do these constructions contribute to shaping their experiences as migrants?
2. How does the process of learning play a role in fostering social inclusion and integration within the German labour market for Turkish migrant women based on individual and systemic characteristics?

3. In what ways are the learning biographies of Turkish migrant women configured, and how do these biographies correspond to their life courses, revealing the dynamic interplay between personal learning experiences and broader life trajectories?

2 Methods

This study uses a life course approach, which includes in-depth narrative/biographical interviews with Turkish migrant women according to sampling criteria (migration year and education level). I aim to capture "the objective shape and formation of life courses as well as their subjective biographical meaning" in relation to learning (Wingens et al., 2011, p. 6).

This study employed in-depth narrative and biographical interviews to explore the experiences of Turkish migrant women. Conducted in the fall of 2023, this article focused on four case studies in Germany, allowing for a detailed examination of each participant's personal history and educational journey.

Table 1
Participant characteristics

Participant	Age	Education Level	Occupation	Family	Parents' Education	Year of migration
Ayşe	47	University (Medicine)	Pediatrician, currently on leave	Married 2 kids	Primary school	1973
Fatma	60	IVET and CVET/ Sales & Commercial Training	Beauty expert/ Esthetician / Accountant assistant / After school-assistant	Married 2 kids	Primary school	1965
Hatice	49	CVET (Audiology Education) /University (Medicine) dropout	Audiologist /Social entrepreneur	Married 1 kid	Primary school	1970
Selma	49	University (Geology) dropout	Unemployed (Was Consultant at City Municipality)	Married no kid	Primary school	1970

3 First results

As it is an ongoing study (I continue recruiting participants and conducting interviews), I cannot report the final results. However, preliminary analysis shows that the first interviews (4 women, all first-in-family academics) provide insights into how highly skilled women's educational biography aligns with their integration and self-identification as well as their perception of education.

The educational trajectories of the women in the study reveal consistent engagement with the German educational system from an early age, indicating their integration into this system at a young age. All participants received their early and formal education in Germany, laying a foundational pathway for further educational pursuits. In terms of higher education, each woman attempted or pursued studies beyond secondary education, although the degrees of

completion and success varied, reflecting a shared aspiration towards achieving higher educational qualifications. Additionally, three of the women engaged in Vocational Education and Training (VET) at some point in their educational biographies, with VET proving particularly significant for two of them as it facilitated their career pathways. Beyond formal education, all the women continued to participate in adult learning activities through formal education programs, language courses, or community-based educational initiatives, demonstrating their commitment to lifelong learning and adaptation within their societal context. The women in the study uniformly perceive education as an invaluable and essential tool for both personal and professional development. This belief is strongly shared not only by the women themselves but also by their parents, highlighting the generational importance placed on educational attainment. Fatma, for instance, recalls how her father consistently emphasized the significance of education, always encouraging them to pursue their studies. Education is viewed as a critical pathway to better opportunities and a means of integration into German society, serving as both an empowering and transformative force. Ayse encapsulates this sentiment by stating, "For me, my education brought the freedom."

However, the educational journeys of these women were not without challenges. Each woman encountered unique obstacles, including language barriers, cultural differences, and the need to balance family responsibilities. These challenges were further exacerbated by their migrant status, intersecting with issues of class and gender. Hatice, for example, reflects on her experience as the only Turkish student in her class, where she often felt like the "odd one out" and struggled with not belonging to a group of students who came from academic families and participated in activities beyond her reach. These experiences underscore the complexities and barriers that migrant women face in their pursuit of education.

The four women in the study navigated the challenging process of integrating into German society while striving to maintain their cultural and religious identities. They engaged actively in community organizations that upheld and supported their cultural heritage, which provided a sense of belonging among the broader societal pressures. Despite being born and raised in Germany, Selma expressed a persisting sense of not fully belonging to the community, connecting this to her headscarf, which made her feel more susceptible to exclusion and being targeted as it is an obvious sign of her religion.

The intersection of gender and migrant status introduced further complexities in their lives. These women faced additional challenges, such as dealing with stereotypes, feelings of otherness, and experiences of exclusion and discrimination. These difficulties were evident in various settings, including schools, public spaces, career guidance, and the workplace. Hatice, for instance, stated how the unemployment agency immediately directed her towards nursing and cleaning jobs, reflecting the limited and stereotypical expectations placed on her as a migrant woman. Moreover, balancing traditional gender roles with their personal aspirations proved difficult, with many of the women altering their educational paths due to family responsibilities. Fatma, for example, had to pause both her work and education to take care of her children, illustrating the ongoing struggle to balance familial duties with personal and professional ambitions.

4 Conclusion

The findings of this study underline the complexity of socially embedded educational experiences for migrant women, who often find themselves in a state of "limbo" due to the interplay of economic, cultural, and social capital factors. Education emerges as a powerful tool for empowerment, offering these women the possibility of transformation and a sense of freedom. Participation in education also facilitates the recognition of their own agency, boosting their self-confidence and self-efficacy as they navigate the multiple realities of intersectionality, including class, religion, gender, and education level.

However, the question of whether education truly leads to inclusion remains unresolved. While education has the potential to bridge gaps and foster integration, the persistent challenges faced by migrant women indicate that achieving true inclusivity through education is still an ongoing struggle. These conclusions highlight the need for continued research and policy efforts to address the barriers that prevent education from being an inclusive and empowering experience for all.

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Biographical notes

Dr Filiz Keser Aschenberger is an Assistant Professor at the Department for Continuing Education Research and Educational Technologies at the University for Continuing Education Krems. Her research focuses on learning processes and lifelong learning.

Papers from Research workshops

VET Research Framework - Challenges and Benefits



Nägele, C. & Stalder, B. E. (2024). A research framework to organize and develop VET research. In C. Nägele, B. Esmond, N. Kersh, & B. E. Stalder (Eds.), Trends in vocational education and training research, vol. VII. Proceedings of the European Conference on Educational Research (ECER), Vocational Education and Training Network (VETNET) (pp. 164–172). VETNET. <https://doi.org/10.5281/zenodo.13363158>

A Research Framework to Organize and Develop VET Research

Nägele, Christof

christof.naegele@fhnw.ch, University of Applied Sciences and Arts Northwestern Switzerland

Stalder, Barbara E.

barbara.stalder@phbern.ch, Bern University of Teacher Education

Abstract

Context: In this short paper, we report on the development of the VET research framework and present its current status since we started discussing it in 2016.

Approach: Development of a VET research framework to organize VET research, ease communication in a multidisciplinary and multifaceted applied research field, and determine research gaps.

Findings: Defining a VET research framework is demanding and will remain a work in progress. We suggest to include the notion of Bildung to refine the framework.

Conclusions: Further work is needed to develop the research network to serve VETNET and integrate the diverse research done by its members.

Keywords

research, community building, professionalization

1 VET research framework

The development of a vocational education and training (VET) research framework began several years ago due to dissatisfaction with existing systems for categorizing VET research and improving discussions within VETNET, particularly in conference programme planning. Such a framework should help put the right papers in a session and thus facilitate a vivid exchange and scientific discussion. Developing a common framework was thus, from the beginning, also an attempt to structure the VET research area to ease communication and community building. This paper summarises the current state of discussion and presents ideas for advancing the framework.

The VET research framework aims to integrate current VET research, help identify research gaps, develop proposals for future research, and foster mutual learning in a multidisciplinary and multifaceted applied research area. The term *framework* is used to describe a model to systematise and structure the field. In early discussions, we considered using *theory* instead. A framework provides a broad structure for research, integrating diverse approaches within VET, while a theory offers a more precise, testable set of principles primarily within a specific discipline. Theories are subject-specific and can vary across educational sciences, psychology, economics, or sociology. A theory is narrower in scope and empirically testable. That is why we use the broader and more suitable term framework for our purpose.

Defining these terms is crucial since their meanings can differ depending on one's subject-specific background. Developing a comprehensive research framework is challenging because it must be open enough to integrate varied research theories and methodologies while providing specific value to VET research. The ongoing effort to create a VET research framework seeks



to balance the inclusivity of varied research approaches with the need for specificity, aiming to enhance the structure and value of VET research.

2 VET research is multidisciplinary and multifaceted

VET research is multidisciplinary and multifaceted, influenced by practical, social, political, or scientific interests. Becoming aware of how strongly external factors influence VET research is crucial. Education and training and the role of VET actors are always socially constructed and rooted in history. The involvement of the public and private sectors differs not only between countries but also within countries in different trades. Education is linked to values, expectations and specific goals. Policy interests and national agencies, referring to a national context, often drive VET research. These conditions set the agenda of VET research and influence how we interpret our results and how our research findings are valued in practice.

We have seen regional and country-specific submissions to VETNET conferences for many years. Doing VET research often starts with reference to their own educational system. A country-specific perspective is not per se wrong if the authors develop a broader perspective and help readers from other countries learn from their case study. At the European Conference on Educational Research (ECER), outlining the European Perspective is an important assessment criterion for a proposal. However, this criterion falls short, as a study based on a sound theory, researched with a regional or national sample, can be insightful for an international and European audience than a study comparing. Therefore, we also advocate theory-based research in VET through our framework.

A quick look at some randomly selected papers in the 7th edition of the VETNET ECER Proceedings (Nägele et al., 2024) clearly shows the authors' different theoretical approaches to address their research question.

Annen et al. (2024) investigate the interaction of actors in complex systems based on the theory of ecosystem actors (Finegold, 1999). Arsenis and Flores (2024) focus on the university-to-work transitions and the role of work placements and work-based learning based on a theory of movement capital (Forrier et al., 2009). Duch (2024) discusses enhancing democracy in VET by concentrating on pedagogy. The theoretical background is rooted in an understanding of democracy in education by Dewey (1916), characteristics of different kinds of democracy by Solhaug (2012), the notion of contextualisation by Bernstein (Bernstein, 2000) and the model for learning and working patterns by Illeris (2006). The paper of Engelage et al. (2024) ground their work in theories on organisational logic as a collective mental model comprised of cognitive schemes, basic assumptions, beliefs, norms, expectations, and implicit values of the organisation (Schweiger & Kump, 2018). Kraus and Freidorfer (2024) examine the theoretical relationship between general education and specific competencies that help strengthen human agency. The Symposium by Tütlys et al. (2024) uses skills shortage models from the EU Horizon 2020 project Skill Partnerships for Sustainable and Just Migration Patterns (Skills4Justice) as a theoretical reference. The four papers in the symposium on migration by Kammermann and Laczik (2024) reference diverse theoretical models. Stalder and Schönbächler (2024) employ the Conservation of Resources (COR) theory (Hobfoll et al., 2018) and the job characteristic model (Hackman, 1980) to dual VET (Lüthi & Stalder, 2018). Felder et al. (2024) adopt a multidisciplinary approach intersecting psycho-social, sociological, and workplace learning theories, asserting that agency and socialisation are crucial for refugees, who can benefit from VET to develop these areas (Baubion-Broye & Hajjar, 1998; Onsando, 2014). Laczik et al. (2024) base their study on careership theory (Hodkinson & Sparkes, 1997). Finally, Keser Aschenberger (2024) utilizes a biographical approach, discussing migrant women's stories through the theories of agency and inclusion (Wingens et al., 2011).

The multidisciplinary and multifaceted nature of VET research is well-documented. The Vocational Education and Training Network (VETNET) examines societal, policy, governance, organisational, institutional, pedagogical, and individual factors of vocational education and training (VET) and lifelong learning. The multiple perspectives on VET are evident in the articles discussed previously. Promoting mutual learning is essential for VET, considering the field's diverse range of theories and methods.

A comprehensive research framework can facilitate productive discussions and enhance understanding across various domains. VETNET's regulations highlight its commitment to exploring these diverse aspects, ensuring a holistic approach to VET research. Ultimately, this contributes to developing and improving VET systems and practices worldwide.

3 Structuring VET research

There were attempts to structure this variety of topics, theories and methods found in VET research. Some years ago, VETNER decided to use the following categories to ease programme planning: Comparison of VET cultures and Governance of VET systems; Qualification frameworks, competence assessment (e.g. Large-scale Assessments); Teachers' & Trainers' professional development; Careers, transitions and guidance & counselling; Work-based learning, partnership of learning venues (e.g. research on apprenticeships); Social issues in VET and social impact of VET provisions; Pedagogic support by digital media (e.g. web2).

Based on the ongoing discussion on the VET research framework, new criteria were developed for the Crossing Boundaries Conference: Reference Level 1—Systems and Policy, Reference Level 2—Institution and Agency, and Reference Level 3—Practice and Actors.

The following chapter presents the actual state of the VET research framework to advance this discussion further.

4 The VET research framework

A first draft of the framework was discussed during the first VET Skills Week 2016 and further developed and applied in the following Skills Weeks and Crossing Boundaries Conferences (Nägele et al., 2019, 2019; Nägele & Gessler, 2018). The European Vocational Skills Week was organised by the European Commission, Directorate-General for Employment, Social Affairs and Inclusion (DG EMPL), between 2016 and 2021 to raise awareness of vocational education and training (VET) in the EU. VETNET was invited as a research network.

The VET research framework organises VET research along three analytical levels and three analytical foci (Figure 1). The analytical foci highlight the role and needs of the learners or students, the trainers and teachers, and the object or work process. They consider that VET is about education and training and becoming a subject-specific and professional expert in a specific vocational area.

The analytical levels highlight the role of individuals (micro-level), schools and enterprises (meso-level), as well as educational systems (macro-level). They consider the interdependence of individual and institutional actors, regulations and processes.

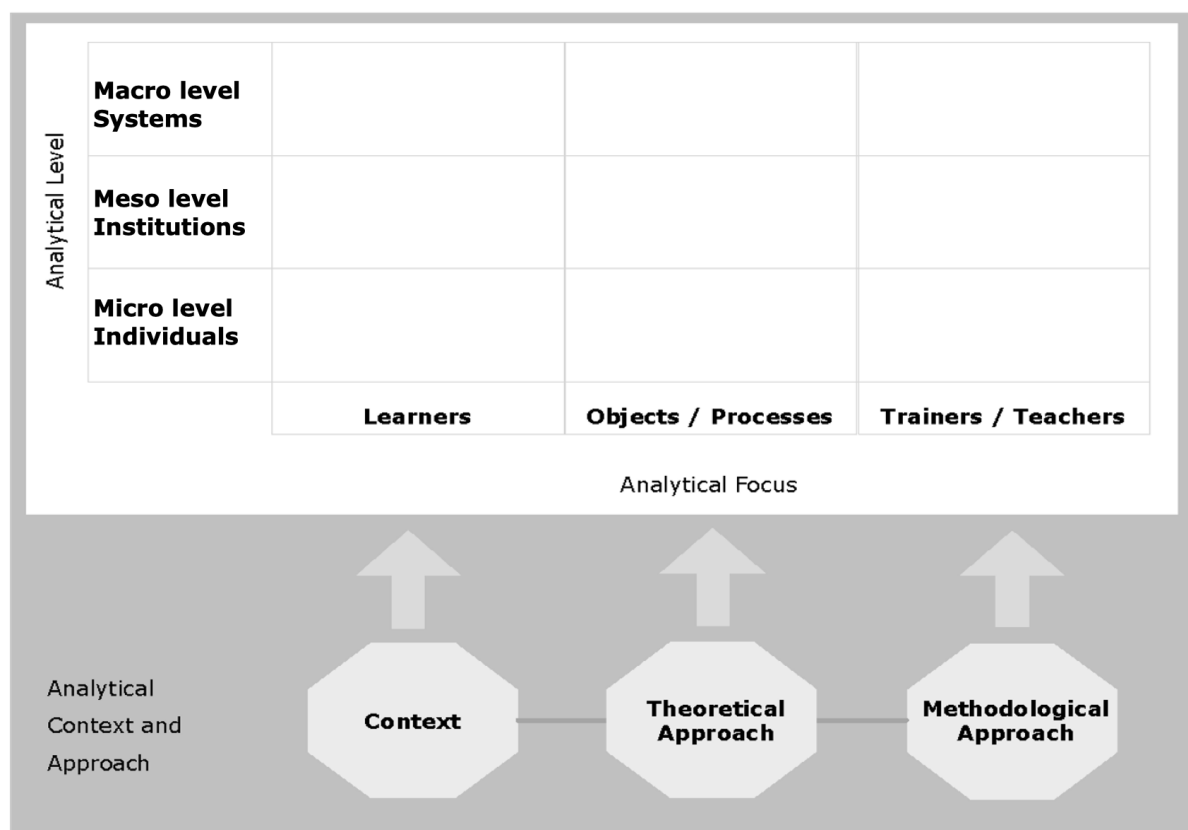
This model aims to integrate not only the different needs expressed by the participants concerning their region or country but also different scientific theories and methods. It reflects the country-specific status of VET, as well as its social, cultural or economic embeddedness and historical context. It acknowledges that VET research is always embedded in a political and historical context, so one solution cannot fit all needs.

4.1 The rationale behind the model

With the analytical focus on learners, objects/processes, and trainers/teachers, we put vocational education and training at the framework's bottom – or centre –. This refers to the didactical triangle, with the learner, the teacher, and the subject building the triangle's three points (Herbart, 1908; Klafki, 1995). However, we do not focus on the learning process, teaching methods or the quality of instruction at this point. In this respect, we depart from the original conceptualisation of the pedagogical triangle, as we do not want to define a pedagogical theory but name the actors and processes involved.

Figure 1

VET research framework



In the VET research framework, we would assign e.g. research on learning processes to the micro-level. A question that is typically addressed in psychological or pedagogical research. If research is done on how to shape the societal and policy conditions for education and training, we assign this to the macro level in the VET research framework. Those are policy studies or also studies with a sociological background. From an economic perspective, questions are about the investment and payoff of education, training, and education. At the meso-level, we would position research on how to steer the system, e.g. on a regional or school level.

As shown in Figure 1, we need to consider the context. That is, local, regional, or country-specific specificities regarding, e.g. how the VET system is designed and embedded in the education system, how it evolved over time, and how it is shaped by societal and economic conditions and its role in lifelong learning. With theoretical and methodological approaches, we refer to the customs and practices in doing research.

4.2 An attempt to apply the framework

Based on the abstracts of the VETNET papers mentioned above, we could categorise the papers as follows:

Annen et al. (2024): This paper operates on a macro-level, focusing on the Federal Institutes of Education. The analytical emphasis is on how school authorities perceive the attractiveness of Vocational Education and Training (VET), particularly concerning learners and students.

Arsenis and Flores (2024): The analysis is conducted at the meso-level, with work placement and earnings as key variables. The focus is on students and their transitions within the education and labor market.

Duch (2024): This paper also adopts a meso-level approach, discussing the implementation of democracy education in classrooms. The emphasis is on teachers and students, aiming to increase their engagement with democratic principles.

Engelage et al. (2024): Operating on a macro-level, this paper explores the recognition of prior learning (i.e., educational achievements) within formal VET programs. The analytical focus is on learners and students, with a particular interest in promoting lifelong career development.

Kraus and Freidorfer (2024): The primary analytical level is meso-level, examining the role of transferable competencies in training companies. Given the policy interest in these competencies, the paper also addresses macro-level considerations. The focus is on learners, students, and teachers, directly engaging with the object/process of transferable competence development.

Tütlys et al. (2024): This paper is set at the macro-level, focusing on skill shortages and mismatches. The analytical emphasis is on migrant learners and students, particularly on designing structures for their integration into the labour market.

Stalder and Schönbächler (2024): Operating at the meso-level, this paper discusses the access to and success of pre-apprenticeship training for refugees. The focus is on learners.

Felder et al. (2024): This study is also at the meso-level, focusing on teachers and trainers, particularly regarding their guidance roles.

Laczik et al. (2024): The analytical level is meso-level, though data is collected at the micro-level by recording the experiences of young migrants. The focus is on learners, students, and their career prospects.

Keser Aschenberger (2024): The analysis is at the meso-level, describing the migration pathways of women. The focus is on learners and students.

We understand the authors might object to our categorisation, arranging their papers differently. We also acknowledge that a research paper might not only tap one level but focus on two or all three. However, the tentative approach of mapping the papers in the framework shows how we read and understand them based on our research background. Opposing the categorisation is most welcome: It stimulates the debate, fosters the discussion beyond disciplinary boundaries, and helps mutual learning. This is exactly what the research framework is about.

4.3 Developing the framework further

Although we started discussing the VET research framework in 2016, no final solution can be presented here. The framework must be further developed. A helpful refinement might consider the inclusion of the notion of *Bildung*.

In a recent paper, Gonon and Bonoli (2023) make a strong and convincing argument that VET cannot be thought of without *Bildung*, a term that is hard to translate into English. *Bildung* implies a more comprehensive process of personal, intellectual, and socially responsible growth beyond mere schooling and training. Also, in this volume of the Proceedings, Kraus and Freidorfer (2024) discuss the importance of *Bildung* in the context of a *Beruf* that can be translated

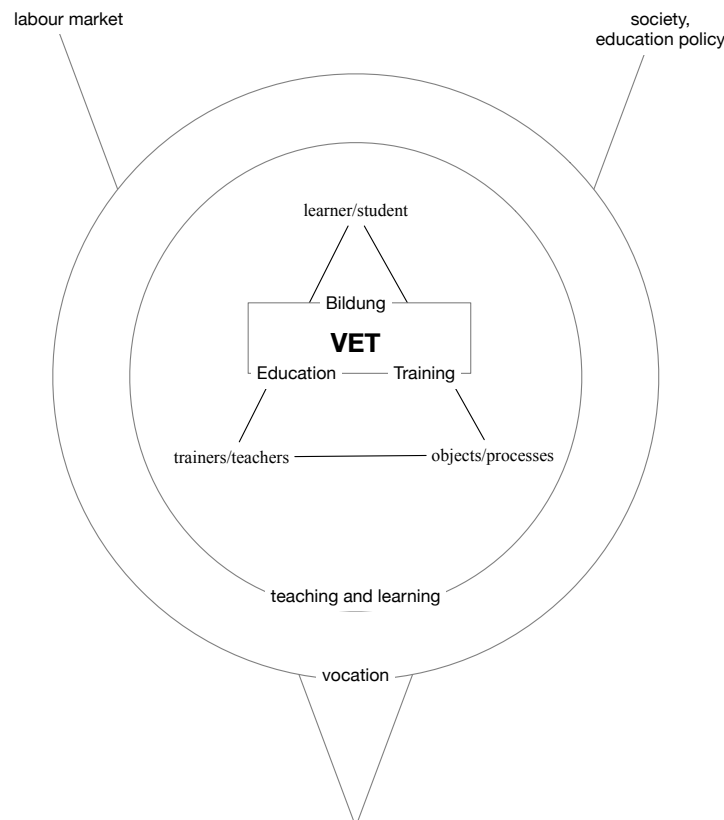
as occupation (Grollmann et al., 2023). To reflect this discussion, we could integrate the modified pedagogical triangle and education, training and *Bildung*, as shown in Figure 2.

At the heart of our understanding of VET is that it somehow tackles teaching and learning and that relevant actors are learners and teachers. The necessities of an occupation define the object. Hence, it is a vocational object.

Irrespective of a researcher's scientific background, the revised VET research framework proposes to put education, training, and *Bildung* at the centre. The essential question is, then, what is the contribution of specific research to enabling, improving, changing, or altering education, training, and *Bildung*?

Figure 2

The interplay of education, training, *Bildung* and vocation



5 Conclusion

Developing a coherent and valuable research framework is still a work in progress and will most likely always be a work in progress. One of the most critical questions is: What is at the core of VET research? By including the concept of *Bildung* we propose that irrespective of a researcher's scientific home, it is always about education, training, and *Bildung*. We address this question with different analytical foci (learner/student, teacher/trainer, object/process) on different analytical levels (micro, meso, macro).

The VET research framework proves helpful if all research can be localised within it. And if it helps to communicate about research in VET by asking, e.g., what the research contributes to education, training, and *Bildung*. Exploring other models that structure VET and/or VET research might help enrich and refine our framework, such as the “conceptions of vocational education and training: an analytical framework”, which distinguishes between the socio-economic/labour market, the education system, and the pedagogical/epistemological perspective

(Cedefop & Markowitsch, 2017), or the VET inclusion framework, which places the learner at the centre to map pedagogical strategy types (Bowman & Callan, 2012). Further development is needed to make the framework more effective and useful in stimulating a fruitful dialogue between VET researchers, practitioners and political actors.

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Biographical notes

Dr Christof Nägele is a senior lecturer and researcher at the University of Applied Sciences and Arts Northwestern Switzerland, School of Education. He is co-chair of the European researchers VETNET. His research interests focus on VET, vocational choice, adjustment processes, social and group processes in VET, and transferable skills.

Dr Barbara E. Stalder is a full professor in educational and social science at the Institute of Upper Secondary Education at the Bern University of Teacher Education, Switzerland. She is co-chair of the European researchers VETNET. Her research interests focus on learning in the workplace and school, student engagement, and career development in and after vocational education.