A Research Framework to Organize and Develop VET Research

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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 Tūtlys 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
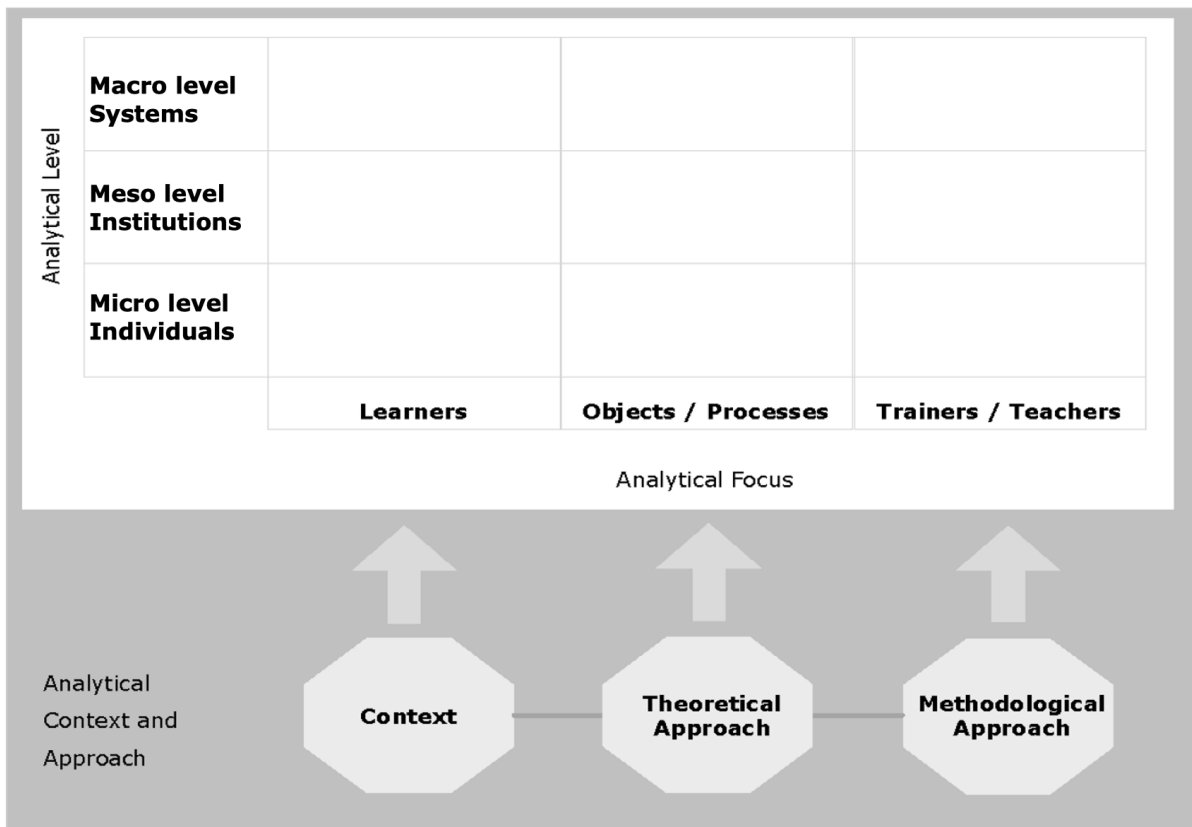
In the VET research framework, we would assign e.g. research on learning processes to the micro-level. A question that is typically addressed in psychological or pedagogical research. If research is done on how to shape the societal and policy conditions for education and training, we assign this to 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.

Tūtlys 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
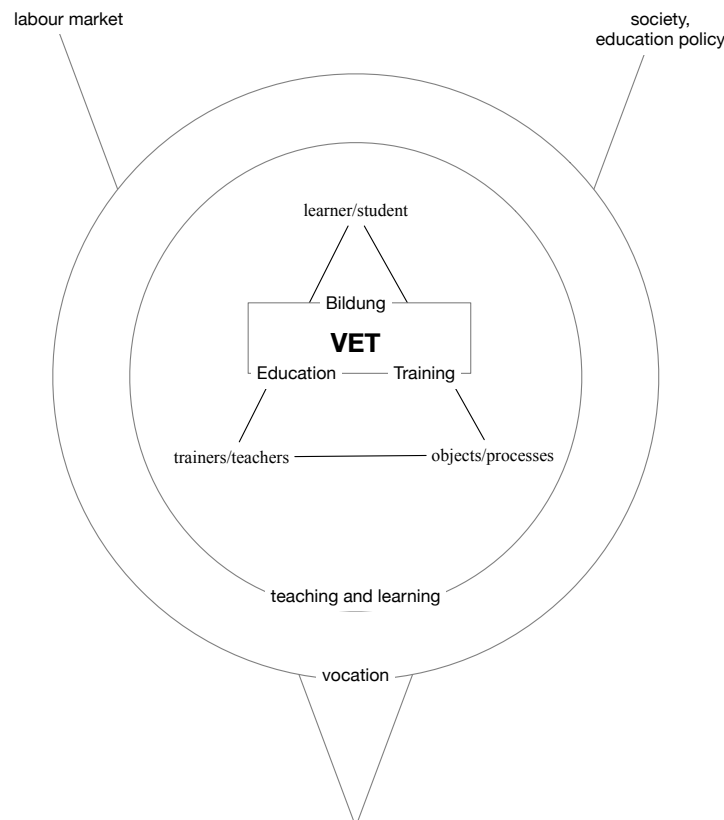
5   Conclusion

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

socioeconomic/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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