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Vocational Education and Training (VET) in Different National Contexts: Between Marginalisation, Ideology, and Reforms

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Contents

Thematic Section

General Section

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Editorial: Vocational Education and Training (VET) in Different National Contexts

Between Marginalisation, Ideology and Reforms

Dietmar Frommberger & Silke Lange

Internationally, the understanding and approaches to vocational education and training vary significantly. Vocational education and training (VET) encompass a wide range of informal, in-company training, non-formal vocational education and training programs in private schools, formal (dual) apprenticeships, and vocational education and training in public schools, among others. These programs and systems adhere to different principles and possess diverse characteristics, both within individual countries and in international comparison. The level of standardization of frameworks and qualifications, as well as the connections to general education and higher education, also vary greatly internationally.

Simultaneously, various reforms and innovations are underway to further develop and enhance VET. International trends include the orientation towards competencies in curricula and teaching, permeability, vocational teacher training, and the integration of school-based and work-based learning. Essentially, existing systemic approaches are being revised to enhance quality, with the goal of making VET a more appealing educational option. The involvement of companies, the development of skilled workers, and the reduction of youth unemployment also play pivotal roles in the advancement of VET in many countries.

With this new journal, we aim to promote academic exchange on current developments in vocational education and training and related studies worldwide. In our view, knowledge about the numerous international developments in vocational education and training has been insufficient thus far. However, given the increasing political importance of vocational education and training, the need for academic exchange is growing. There is a dearth of academic journals through which research findings can be systemat-

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ically disseminated. The journal acknowledges that VET in different countries is studied not only from an educational perspective but also from other disciplines, such as political science, sociology, or economics.

In this inaugural issue, we intentionally selected a broad topic for the thematic section, focusing on vocational education and training in various national contexts. We requested our authors to consider that VET reforms are often accompanied by ideologies and that, despite political recognition, VET frequently faces marginalization within an educational system. The primary objective is to gain a better understanding of the development of vocational education and training approaches in different countries. To this end, approaches to vocational education and training and selected issues from five different countries are discussed. The contributions illustrate the diversity of national VET systems, particularly concerning their alignment with general and higher education on one hand and the employment system on the other. Additionally, it becomes evident that significant variations exist within individual countries regarding VET approaches.

Raffaella Simona Esposito's article discusses at vocational middle schools in the German-speaking regions of Switzerland. Vocational middle schools are a relatively small area of vocational education and training in Switzerland that exists alongside the dominant dual system. This high-quality part of the VET system in Switzerland is followed by around 10 per cent of those who find their way into vocational education after completing compulsory full-time schooling. This article presents and discusses the results of a study on the vocational education and training policy discourse surrounding the significance of the vocational middle school for vocational education and training in Switzerland. It can be shown that the further development of this marginalised vocational education and training pathway meets with strong reservations and resistance in terms of vocational training policy.

In the discourse on vocational education and training in an international comparison, Japan is often seen as a country in which, alongside general and higher education, vocational education and training outside of internal and individual company qualifications and careers is not very important. However, **Peter-Jörg Alexander** shows in his article that this model-like view is very undifferentiated per se and, moreover, does not take into account the developments of recent years in particular. In Japan, there are increasing attempts to develop forms of vocational training that create a link between state standards and individual company requirements.

Daniel Láscarez-Smith's contribution focusses on vocational education and training in Costa Rica. Láscarez-Smith shows the role that employers' organisations and interests have played in the further development of vocational education and training in Costa Rica over the last four decades. During this time, dual approaches to vocational training have received a great deal of political attention in Costa Rica. However, their implementation has met with a great deal of resistance from the traditional school-based forms of vocational education and training, with the result that the dual system of vocational education and training has in fact played a subordinate role to date, despite its major political role.

Jan Peter Ganter de Otero takes up the modernisation process of the vocational training system in Brazil. Specifically, he presents the results of a discourse analysis relating to the role of vocational education and training in innovation processes. This also makes

it clear what social significance is attached to vocational education and training in Brazil, also in relation to academic education.

Malaka Samara impressively describes the development approaches of vocational education and training in Palestine, which has hardly been able to gain any established significance due to the extremely difficult political conditions. In addition, vocational education is relatively less attractive to young people than higher general education and higher education. The fragmentation of vocational education and training programs contributes to this low attractiveness. Malaka Samara's article was written before the events of October 7. The current events, which are accompanied by great suffering among the civilian population on both sides of the conflict, were not taken into account.

In the **general section**, an article by **Tim Migura** focuses on a typical professional activity (midwife practice) and analyses the different developments in the form of systematic preparation for this professional activity in Germany, Austria and Switzerland. He focuses on the question of what influence the instruments of the European Union, which aim to achieve comparability between the different countries in the European Union (EU), have on these different national developments in the three selected countries. Although Switzerland is not a member of the EU, the international comparative instruments also have an effect there.

Thematic Section

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Vocational Middle Schools (VMSs) as Marginalized Part of the Swiss VET System

A Governance Perspective on Functions, Steering Instruments, Justifications and Sacrifices

Raffaella Simona Esposito

Abstract *Dual VET is considered the unquestioned standard of VET at the upper secondary level in German-speaking Switzerland. This study sheds light on a hitherto rather marginalized and disputed part of the Swiss VET system: the Vocational Middle Schools (VMSs). In contrast to dual VET, there has been only limited information about and understanding of VMSs so far, because only a few research has been done on VMSs. Therefore, referring to the theoretical framework of the Sociology of Conventions and using the example of three German-speaking cantons, the study aims to investigate the vocational education policy disputes about the significance of VMSs in the political governance of the transition to upper secondary education in Switzerland. The results show the disputed functions and criticisms attributed to VMSs as part of the Swiss VET system and highlight how these positions are justified by the relevant actors. Overall, the results provide insights into how the status of dual VET as the unquestioned standard of Swiss VET is protected and reproduce in Switzerland. Furthermore, they emphasize that the sacrifices for this are made at the expense of VMSs, which are restricted by the canton's (vocational) education policy. Looking beyond the borders of the Swiss case, the results affirm that the distribution of young people across various programs in an education system should be understood not only as the consequence of individual preferences and decisions but also as resulting from strategic steering interventions by a country's (vocational) education policy.*

Title *Vocational Middle Schools (VMSs) as Marginalized Part of the Swiss VET System. A Governance Perspective on Functions, Steering Instruments, Justifications and Sacrifices*

Keywords *VET, Dual, Governance, Transitions, Education Policy*

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1 Introduction[1]

In Switzerland young people can choose between three federally recognized education programs after compulsory education: baccalaureate schools, specialized middle schools, and vocational education and training (VET) (Swiss Conference of Cantonal Ministers of Education, 2023).[2] Whereas general education is the gold standard of individual educational choice in many countries (Kriesi, Bonoli, Grønning, Hänni, Neumann & Schweri, 2022; OECD, 2015), in Switzerland VET predominates at the upper secondary level: In 2022 about 65 % of young people were enrolled in a VET program, compared to 28 % in a baccalaureate school and 7 % in a specialized middle school.[3] This issue is debated controversially in education policy in Switzerland (Kriesi et al., 2022). One salient characteristic of the Swiss VET system is its comparatively high proportion of dual (90 %) compared to any school-based (10 %) VET programs (OECD, 2015; State Secretariat for Education, Research and Innovation, 2022). In large parts of Switzerland, especially in the German-speaking cantons, dual VET is highly supported and has a strong lobby. Also, Swiss dual VET is considered a model of success beyond national borders: As a "model example" (Kriesi et al., 2022, p. 26), and "showcase model" (Kriesi et al., 2022, p. 4) it inspires the design of other countries' VET systems. However, statistics show that more young people enter tertiary level education (traditional universities, universities of applied sciences, and universities of teacher education)[4] via a general education school-based pathway rather than via dual VET (Leemann, Esposito, Pfeifer Brändli & Imdorf, 2019). Therefore, representatives of dual VET fear that too many high-achieving students[5] could drift into school-based (general as well as vocational) education programs and thus are 'lost' for dual VET. Related to this, a battle for high-achieving students takes place between general education and VET at the upper secondary level in Switzerland (Jäpel, 2016; Jütter, 2023; Kiener, 2007; Schellenbauer, Walser, Lepori, Hotz-Hart & Gonon, 2010; Wettstein & Amos, 2010; Esposito 2022). Consequently, Swiss VET policy is concerned with how the appeal of dual VET in Switzerland can be "ensured and maintained in the future" (State Secretariat for Education, Research and Innovation, 2019).

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1 The paper at hand is based on presentations held at the Crossing Boundaries Conference in Vocational Education and Training in Kaunas (May 2023) and the European Conference on Educational Research (ECER) in Glasgow (August 2023), both published in the corresponding conference proceedings "Proceedings of the 4th Crossing Boundaries Conference in Vocational Education and Training" (Esposito, 2023b) resp. "Proceedings of the European Conference on Educational Research (ECER), Vocational Education and Training Network (VETNET)" (Esposito, 2023a). The text was translated from German by Simon Milligan, Academic Language Services GmbH.

2 Young people who do not directly pursue one of these education pathways often take advantage of upper secondary interim solutions (Landert & Eberli, 2015).

3 https://www.bfs.admin.ch/bfs/de/home/statistiken/bildung-wissenschaft/bildungsindikatoren/themen/zugang-und-teilnahme/ausbildungswahl-sekii.html.

4 The statistics refer to the traditional part of the tertiary level education (traditional universities, universities of applied sciences, and universities of teacher education) and do not consider the professional education sector as part of the Swiss tertiary level education.

5 The term "high-achieving students" refers to students with good or very good school grades at the lower secondary level.

The effort to put VET on an equal footing with general education in terms of its attractiveness and reputation is not new: in the 1990s, VET fought for more recognition compared to general education. Accordingly, in 1994, in the context of the institutionalization of universities of applied sciences, the Federal Vocational Baccalaureate and thus a university entrance qualification for VET at the upper secondary level was introduced (a.o. Gonon 1994, 1997; Kiener 2008; Kiener and Gonon 1998). Today, the vocational baccalaureate is considered a central element of Swiss VET and, in combination with a Federal VET Diploma (initial vocational qualification), is seen as the royal road to the universities of applied sciences. In view of the slowing growth of vocational baccalaureate certificates, Swiss education policy has defined the strengthening of the vocational baccalaureate as a central VET policy priority since 2014.[6]

The predominant position of *dual* VET at the upper secondary level in Switzerland is politically widely accepted and fostered, both at the national and cantonal levels. In contrast, *school-based* VET programs, especially the full-time school-based VMSs, that target high-achieving students, are rather marginalized in German-speaking Switzerland: they are few in numbers and receive only little attention from VET policy and society. Despite their low proportion among all upper secondary level degrees, VMSs have been regarded by representatives of dual VET as competition, even a threat to dual VET (Esposito, 2022; Fleischmann, 2023; Hirayama, 2023; Steimann, 2022). Furthermore, VMSs have been restricted in certain cantons by education policy measures in recent years (Esposito, 2023b, 2023a).

As hardly any research has been done on VMSs (Cortesi 2017; Criblez 2012; Imlig et al. 2021; Kehl, Frey & Thomas, 2014; Wettstein & Amos, 2010), in contrast to dual VET, there has been only limited information about and understanding on VMSs as part of the upper secondary vocational education so far.[7] The study at hand addresses this research gap by investigating the vocational education policy disputes regarding the significance of the VMSs in the political governance of the transition to upper secondary level in Switzerland. The study follows a governance perspective and assumes that young people's decisions and their distribution across education programs are not only the result of individual choices and decisions, but also of institutional conditions: admission regulations, supply, selection processes, and accessibility. Furthermore, from a governance perspective, the political governance of transitions in an education system is understood as a situation of coordination of actions in which disputes and criticism can arise and solutions must be negotiated. The aim of the study is therefore addressed through the following questions:

- What qualities and functions do actors attribute to VMSs, and what critiques arise?
- By means of what instruments do relevant actors steer the access regulations and the supply of the training places available at VMSs?
- How do actors justify their positions and steering interventions?

6 https://berufsbildung2030.ch/de/21-projekte-de/267-berufsmaturitaet-2030

7 This does not apply to the same extent to French- and Italian-speaking Switzerland (Cortesi, 2017; Gonon & Bonoli, 2022; Imdorf, Berner & Gonon, 2016; Wettstein & Amos, 2010).

By taking a governance perspective on educational transitions of students with a focus on the institutional conditions of transitions such as supply structures and rules of distribution as well as the coordination of action, this study complements previous research on educational transitions, which tended to focus on individual factors in educational decisions (a.o. Häfeli et al., 2015; Neuenschwander, 2011).

The rest of the paper is structured as follows: Section 2 elaborates on both the dual VET model and the VMSs as parts of the upper secondary vocational education in Switzerland. Section 3 explains why the Sociology of Conventions is an appropriate theoretical framework to address the research questions. Section 4 presents the research design, data, and methods. Based on the results presented in Section 5, Section 6 provides some further concluding reflections.

2 Upper secondary level vocational education in Switzerland:[8] a spectrum between dominance and marginalization

2.1 Dual VET as the highly supported und unquestioned standard of VET

In some occupations, initial VET can be completed either as a dual or a school-based program (Federal Act on Vocational and Professional Education and Training 2002; Strahm et al., 2016). In the following, only the dual training model is described, as in the next subsection the school-based training model is discussed related to the VMSs. In the dual training model, young people usually spend three and a half days as apprentices in their host company, where they are actively integrated in the company's production process and acquire practical vocational knowledge and skills. This education in vocational practice is considered crucial to the high labor market integration and practical relevance of dual VET (Maurer, 2013). The remaining one and a half days the apprentices are at the vocational school. Furthermore, during their apprenticeship, the apprentices must spend some days at so-called branch courses, which serve to teach and acquire basic practical skills (State Secretariat for Education, Research and Innovation, 2022). The provision of dual VET training places highly depends on the willingness of companies to provide training. Entry into dual VET requires an apprenticeship contract with a host company, that determines its own selection procedure and corresponding access criteria. Furthermore, the host companies bear a large proportion of the training costs, which in contrast to VMSs, are therefore not fully charged to the canton. The qualifications that young people acquire through initial VET are independent of the training model (school-based or dual) chosen: After three or four years of training, young people acquire an initial vocational qualification, the Federal VET Diploma, which formally allows entering the labor market (Federal Act on Vocational and Professional Education and Training 2002). In addition, either in parallel with their apprenticeship or afterwards, holders of a VET Diploma can acquire an entrance qualification for universities of applied sciences, the

8 Further information on the Swiss VET system can be found on the portal of Swiss Vocational and Professional Education and Training, https://vpet.ch/dyn/21307.aspx.

federal vocational baccalaureate (Swiss Conference of Cantonal Ministers of Education 2023).

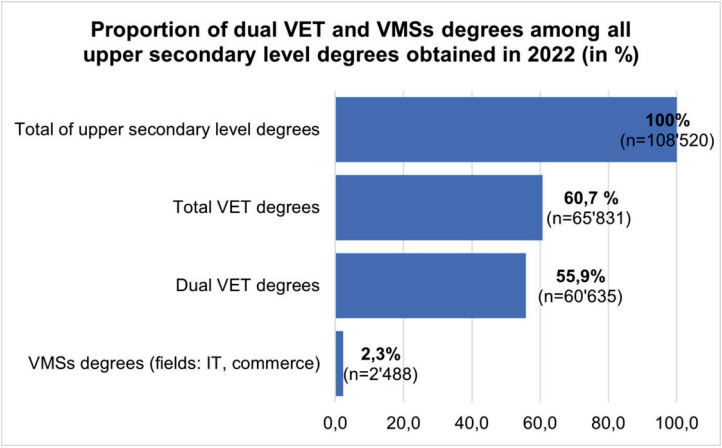
The advantages and strengths of the Swiss VET system include the high labor market orientation and its practical relevance, the integration of students with weaker academic records, the contributions to a low youth unemployment rate and a high completion rate of young people at the upper secondary level (e.g. Kriesi et al. 2022). This last strength is important to a long-standing joint education policy goal of the Swiss government and the cantons, which has not yet been fully achieved: an overall graduation rate of 95 % at the upper secondary level (Federal Department of Economic Affairs, Education and Research & Swiss Conference of Cantonal Ministers of Education, 2019). To maintain these strengths, the Swiss Observatory for VET concluded in its latest trend report that "VET needs to be an appealing pathway for different groups of young people" (Kriesi et al., 2022, p. 30). Swiss VET policy is thus a.o. challenged to position dual VET between integration and excellence. Therefore actors have not only invested substantially in integrating young people at the lower end of the academic performance range, but also focused on how high-achieving students can be further attracted to VET (Elsholz & Neu, 2019; Esposito, 2023a; Kriesi et al., 2022). Overall, dual VET has a strong lobby in society and education policy and is regarded as the "unquestioned standard" (Esposito, 2022; Leemann, 2019) of VET at the upper secondary level in Switzerland.

2.2 Vocational Middle Schools (VMSs) as marginalized and questioned VET programs

In fields such as IT and commerce, the Swiss VET system provides a specific school-based VET program, the VMSs. VMSs are four-year full-time school-based VET programs. The school setting is geared towards tertiary education and usually includes a one-year full-time internship in the fourth school year, where apprentices acquire practical skills in the world of work. After four years graduates obtain a double qualification: a Federal VET Diploma qualifying for the labor market entry and a vocational baccalaureate that qualifies them for access to universities of applied sciences. VMSs are demanding VET programs and target high-achieving students. The supply of training places and the admission regulations for VMSs are defined and steered by the cantons. For VMSs the apprentices do not have to sign an apprenticeship contract with a host company, as is the case with dual VET, but an internship contract with the company where the one-year internship is done. In contrast to dual VET, the cantons bear all the training costs incurred in VMSs. VMSs, as school-based VET programs in general, receive only little attention from VET policy and research in most parts of Switzerland. Furthermore, as figure 1 shows, from a quantitative perspective VMSs play only a marginal role: In 2022 the proportion of VMSs (fields of IT and commerce) at the upper secondary level was about 2.3 % (compared to 55.9 % dual VET), when considering the number of degrees obtained.[9]

9 https://www.bfs.admin.ch/bfs/de/home/statistiken/bildung-wissenschaft/bildungsabschluesse/sekundarstufe-II.html, as well as data from the Federal Statistical Office specifically prepared for the author needs regarding the analyses of VMSs.

Figure 1: Proportion of dual VET and VMSs degrees among all upper secondary level degrees obtained in 2022 (in %). Own calculations based on data from the Federal Statistical Office.



If the VMSs' degrees are considered in relation to the total number of VET qualifications, this results in a proportion of 3.8 %. Among other reasons, due to this low quantitative relevance of VMSs at the upper secondary level and within VET, VMSs are often considered a marginalized part of the Swiss VET system by representatives of VET. Interestingly, VMSs are nevertheless often criticized by representatives of dual VET for being an undesirable competition to dual VET, and have been restricted in certain Swiss cantons by education policy measures in recent years (Esposito, 2023a, 2023b).

3 The Sociology of Conventions as theoretical framework

The research questions are examined with reference to the theoretical framework of the Sociology of Conventions (SoC) (Boltanski & Thévenot, 2006; Diaz-Bone & de Larquier, 2022). The SoC assumes that situations of coordination of action are fraught with uncertainty about their course and outcome. To cope with this, actors rely on various sociohistorically established principles of action, worth, and justice, termed conventions (Boltanski & Chiapello, 2005; Boltanski & Thévenot, 2006). Each of these conventions refers to a specific common good and thus generates its own quality of education (Derouet, 1989; Imdorf & Leemann, 2023). The conventions relevant to this paper are summarized in Table 1.[10]

10 For a complete overview see Esposito (2022) and Imdorf and Leemann (2023).

Table 1: Conventions in education.

CONVENTION	COMMON GOOD, QUALITY, LOGIC OF ACTION
Industrial	Efficiency, productivity, expertise, performance, long-term planning
Civic	Collective interest, equality, social integration, general education
Fame	Recognition and opinion of third parties, image promotion and maintenance, popularity among the public, visibility
Domestic	Trust, intimacy, tradition, social fitting, hierarchy, character building
Domestic-company	Social fitting in the work community and the world of adults; world of work and everyday professional life as learning environment; experience-based and on-the-job practice and learning
Domestic-school	Social fitting in the school community and the peer group; simulated working reality (as a safe space) as learning environment
Market	Price, profit, value for money, demand-orientation

Source: Derouet (1989); Esposito (2022); Imdorf & Leemann, (2023)

Based on empirical material comparing the characteristics (target groups, educational goals, curricula, forms of knowledge and modes of knowledge transfer and acquisition) of a general education program and a VET program, both in the field of health, Esposito (2022) has shown that the domestic convention articulates itself differently depending on the learning setting of the school or the company. To theoretically grasp this different articulation of the domestic convention, Esposito (2022) has introduced the notions "domestic-school" and "domestic-company".

From a SoC perspective, quality is socially ascribed, constructed and expressed based on plural and sometimes contradictory conventions. Actors are equipped with agency and reflexive competence to deal with this plurality of conventions, to assess their appropriateness to any given situation, and, if necessary, to switch between the different logics and to establish compromises between them (Barthe et al., 2016; Boltanski & Thévenot, 1999; Diaz-Bone, 2018; Diaz-Bone & de Larquier, 2022; Wagner, 2004). Compromises are formed not only as solutions to disputes but also as support that reinforces conventions, for instance by relating them positively to each other (Diaz-Bone, 2009, 2015; Knoll, 2013a, 2013b). From a conventionalist perspective, the political governance of transitions is thus understood as a situational practice in which actors rely on different and partially conflicting conventions when justifying positions and decisions and evaluating qualities, which can lead to disputes and criticism.

In situations in which actors evaluate or justify something, they can draw on plural conventions. This does not happen by chance, but rather in situations certain conventions are more obvious as reference logics than others. This due to the fact, that conventions are also anchored in the sociomaterial equipment of the situation. Actors can therefore extend and stabilize the scope of conventions and thus increase their power by investing in forms (Dodier, 2010; Thévenot, 1984, 2011, 2014). In a situation, a convention therefore stabilizes itself through the support of material and immaterial forms and objects. Eymard-Duvernay (2012) has used the term "dispositive of valorization" in this respect.

Forms with a particularly high scope that are unquestioningly accepted in coordination situations are called "standards" (Thévenot, 2009). Standards promote a closing of eyes (Thévenot 2009) to alternative forms that could have been invoked for coordination and thus convey a "blind trust" (Thévenot 2009, p. 795) in established practices (Diaz-Bone, 2018). From an SoC perspective, power depends on the (sociomaterial) equipment of a situation, and is not per se inherent in certain actors but distributed in a coordination situation: Power goes to those actors who succeed in extending the scope of the conventions on which their arguments rely and thus making them powerful (Diaz-Bone, 2017). The convention-theoretical concepts of form investment and the power of conventions are central to (1) explaining persistence and change, (2) examining "how actors produce temporal, social, and spatial stabilizations and generalizations of valorizations and forms of coordination" (Diaz-Bone, 2018, S. 96), and (3) understanding how power is extended, stabilized, and intensified in situations (Diaz-Bone 2017).

4 Design, Data and Methods

Switzerland is characterized by a pronounced educational federalism. Consequently, its federal states, the 26 cantons, are in many respects responsible for education (Hega, 2000). Switzerland is therefore a promising place to study the governance of transitions because it has the potential to show how different ways of governing transitions in local contexts can lead to different outcomes and tensions (Gonon, 2009; Hafner, Esposito & Leemann, 2022; Kerber & Eckardt, 2007). For this reason, the research questions are examined using three German-speaking cantons (in the following named as Cantons A, B or C) as examples. Among these cantons the proportion of VET at the upper secondary level varies between 62.2 % and 75.6 % (2021/2022: Swiss average: 65.4 %)[11] and the proportion of VMSs within upper secondary VET (2022)[12] varies between 0.5 % and 7.8 %[13] (Swiss average: 4.2 %). To ensure that personal data are protected, the cantons are not named, and all data are anonymized. Upon reasonable request, a list of the sources and references not made public in this paper can be obtained from the author. The data for this study were collected as part of a larger research project on the governance of transitions in the Swiss education system.[14] The database consists of publicly available

11 Proportion of students under 20 years of age in the first year of a VET program at the upper secondary level. Source: https://www.bfs.admin.ch/bfs/de/home/statistiken/bildung-wissenschaft/bildungsindikatoren/indicators/ausbildungswahl-sekii.assetdetail.24485162.html.

12 https://www.bfs.admin.ch/bfs/de/home/statistiken/bildung-wissenschaft/bildungsabschluesse/sekundarstufe-II.html.

13 https://www.pxweb.bfs.admin.ch/pxweb/de/px-x-1502020100_301/px-x-1502020100_301/px-x-1502020100_301.px/table/tableViewLayout2/ as well as based on data from the Federal Statistical Office specifically prepared for the author needs regarding the analyses of VMSs. Due to low case numbers (f.e. n=8) and young people's attendance of VMSs outside his/her canton, the percentages for the cantonal level may show certain imprecisions.

14 Research project "Governance of Transitions in the Swiss Education System. A Study on the Political Regulation of Moving from Primary to Lower Secondary and from Lower Secondary to Upper Secondary Education (GovTrans)", funded by the Swiss National Science Foundation (SNSF

documents as minutes of negotiations and decisions in the plenary sessions of the cantonal parliaments as well as proposals and decisions pertaining to the VMSs, cantonal media releases and selected newspapers. Additionally, following the SoC methodology, the actors' perspectives were captured by six[15] qualitative problem-centred expert interviews (Meuser & Nagel, 2009) with representatives of the cantonal educational administrations as well as with (former) heads of VMSs lasting around one to one and a half hours.[16] The data were subjected to a theory-based qualitative content analysis (Gläser & Laudel, 2010), in line with the SoC focus on conventions, form investments, criticisms, and compromises. As conventions cannot directly be asked for in interviews but must be reconstructed by the researcher based on the arguments put forward by the interviewee, argumentation-analytical strategies were additionally made use of (Toulmin, Rieke & Janik, 1979).

5 Results

The results presented in the following show the disputed significance of the Vocational Middle Schools (VMSs) – a hitherto little-known, scarcely researched and politically marginalized part of the Swiss VET system beside dual VET – within the political governance of the transition to upper secondary level in Switzerland. This is done by focusing especially on the qualities, functions and critiques attributed to VMS (subsection 5.1), the governance instruments used to steer the VMSs' supply of training places available as well as the access regulations (subsection 5.3), and the respective justifications relevant actors refer to (subsections 5.2 and 5.4).

5.1 Qualities, functions and critiques attributed to VMSs

Actors rely on diverse and partially conflicting conventions to discuss, evaluate and legitimize the qualities and functions of VMSs. On the one hand, supporters refer to the industrial convention to stress the VMSs' systemic function of providing highly qualified skilled workers in areas with skills shortages. By targeting high-achieving students, VMSs help to exploit the domestic talent potential (Interview A1, educational administration). Furthermore, VMSs were supported with a civic argument: The selection procedures and criteria for VMSs are less susceptible to discriminatory mechanisms, as is the case with dual VET (Imdorf, 2005): Whereas for dual VET each host company can set its own selection procedures and criteria, for VMSs the canton has to define them (mostly mandatory exams or/and school grade averages) and disclose them in publicly accessible

10001A_188906) (07/2020–06/2024), http://www.bildungssoziologie.ch/forschung/governance-von-transitionen/.

15 Three interviews were conducted in each of the cantons A and B. Due to field access problems in Canton C no interviews were conducted there.

16 As in Canton B the Specialized Middle Schools are affected by the same educational policy restrictions as the VMSs (Esposito 2022), interviews were also conducted with two heads of a Specialized Middle School.

formal regulations. The civic-orientated function attributed to VMSs is therefore its contribution to more equal access opportunities to upper secondary education (Interview A1, educational administration). On the other hand, opponents refer to the market convention to devalue and criticize VMSs for causing much higher cantonal costs than dual VET without adding any value to the qualifications that can be achieved (e.g. Steimann, 2022; Interview B3, educational administration). VMSs are therefore considered to be replaceable by dual VET without any losses, but with lower costs for the cantons. Moreover, representatives of dual VET criticize the full-time school-based learning setting and related to this the lower proportion of company-based practical learning compared to dual VET. For opponents of VMSs, the understanding of "practice" and "practical learning" based on rationalities of the domestic-company convention is an important yardstick by which they valorize the quality and function of VMSs, and based on this, classify them as subsidiary and inferior to dual VET (Esposito 2022). Furthermore, strengthening the image and the reputation of dual VET as an attractive vocational education pathway for high-achieving students is an important goal of VET policy in Switzerland. Because VMSs target high-achieving students, they are considered a threat to this image of dual VET and therefore an undesirable competition to dual VET (Fleischmann, 2023; Hirayama, 2023; Steimann, 2022; Interview B3, educational administration; Interview A1, educational administration). This critique relies on the rationalities of the convention of fame.

So far, supporters of VMSs have been shown to refer to the industrial and civic conventions to ascribe qualities to VMSs, opponents to the market, fame, and domestic-company conventions to criticize and question them. Based on these plural positions, judgements and justifications, supporters and opponents advocated either for an expansion or a restriction of VMSs. Interestingly, in all three cantons studied, opponents have succeeded in advancing their positions, so that in all of them governance strategies restricting the future development of VMSs could be identified. How can this be explained? A possible answer to this is given in the following.

5.2 The power of conventions as explanation for the enforcement of governance strategies and steering instruments that restrict VMSs

In a first step, the scope and power of the conventions, that opponents rely on in their critics regarding VMSs, are shown:

- *Market convention*: National and cantonal savings requirements are translated into forms such as political decisions for savings packages, tabulated cost comparisons (Document 1, anonymized), newspaper headlines stating "savings potential" (Document 2, anonymized) or "savings mode" (Document 3, anonymized) as well as national and cantonal discourses, etc. This dispositive frames the situation of coordination of actions in a way that the market-oriented argument of saving costs by limiting the expansion of VMSs is highly legitimized and powerful.
- *Convention of fame*: Representatives of dual VET strive to foster and strengthen the attractiveness of dual VET, also for high-achieving students (Esposito, 2023a). Many cognitive and material investments in forms are made at cantonal and national levels to emphasize and support the image and awareness of dual VET in this regard.

Examples are the cantonal program "promotion of talents plus" as a targeted and coordinated attempt to attract more high-achieving pupils to dual VET (Document 4, anonymized), VET funds for training companies and associations that provide special support to their high-achieving apprentices during their apprenticeship (Document 5, anonymized) or political efforts to strengthen the federal vocational baccalaureate as for example by means of letters of intent signed by employer organizations, trade associations and educational administrations (Documents 6 and 7, anonymized). As the publication of the Swiss State Secretariat for Education, Research and Innovation (2019) entitled "Excellence and appeal of Swiss dual-track VET programs. Switzerland, Austria, and Germany present their respective approaches" exemplifies, the topic of strengthening and maintaining the appeal of dual VET not only shapes the Swiss but also the international VET policy discourse. Such investments in forms increase the scope of the convention of fame, stabilize and thus empower it.

- *Domestic-company convention*: In German-speaking Switzerland dual VET has a high social and educational policy status as well as a powerful lobby. The associated learning setting in the company and in the realities of life is regarded in these circles as a highly legitimized form of learning, while learning in the classroom is devalued (Esposito, 2022; Leemann, Esposito & Imdorf, 2021). In the governance of the transition to upper secondary education, the domestic-company-convention is a powerful one.

In a second step, we consider the power of the conventions to which the supporters of VMSs refer to:

- *Civic convention*: Neither a discussion of discriminatory mechanisms in access to dual VET nor about equal opportunity mechanisms in access to VMSs are widespread in the cantons studied. Correspondingly, the civic convention and the quality attributed to VMSs based on it do not achieve much scope and power.
- *Industrial convention*: Cognitive forms and other mechanisms, including national and cantonal discourses, newspaper headlines as "Skills shortage continues to intensify" (Document 8, anonymized), reports such as the one from the Swiss State Secretariat for Economic Affairs (2016) "Skills shortage in Switzerland. Indicator system for assessing the demand for skilled workers", and statistical forecasts about a skills shortage at national and cantonal levels support VMSs as a recruitment pathway for future tertiary qualified professionals. Thus, the industrial convention reaches a broad scope and gains importance and legitimacy in the negotiation between supporters and opponents of VMSs. We can assume that this industrial legitimation of VMSs is largely responsible for the fact that VMSs were 'only' restricted in the cantons studied, and not completely abolished.

To answer the question of why governance strategies that restrict and not expand VMSs have succeeded in pushing through, referring to the theoretical framework of the SoC, it can be summed up that opponents of VMSs have a broad dispositive of valorization at their disposal, that stabilizes and strengthens the conventions to which they refer to in their justifications and quality attributions of VMSs, and that empowers 'their' con-

ventions. Accordingly, the positions of the opponents of VMSs are more assertive in the situations of negotiation within the governance of the transition to upper secondary education than those of the supporters.

5.3 Restricting VMSs by a broad range of steering instruments

At this point, the question arises of how the pursued governance strategies, that restrict VMSs, have concretely been put into practice in the three cantons studied. This is shown in the following.

Canton A: Allocating training places by limiting the number of VMS classes

In 2012, as Canton A faced a financial crisis, the cantonal government decided to limit the number of training places at VMSs in the fields of IT and commerce. Officially justified as a cost-saving measure (market convention), Canton A limited the number of VMS classes to total five per class level (Interviews A1 and A2, educational administration). This ceiling of classes has been anchored in the corresponding cantonal admission regulations for VMSs (Document 9, anonymized). The introduced ceiling can be interpreted as a hard governance (Moos, 2009) steering instrument: Canton A can actively and directly control the number of training places and thus keep the competition between dual VET and VMSs within politically accepted limits. As the following quotation from a former head of several VMSs shows, this has always been an important issue in the political discourse of Canton A:

> For a long time, school-based VET has been regarded as costly competition to traditional dual VET, because in some sectors, the state takes over tasks that are performed elsewhere by professional associations and companies. This argument always played a major role in the political discourse on the closure of VMSs in the field of commerce and the establishment of VMSs in the field of IT (Interview A3, former head of VMSs).

In 2017, due to an increased demand for IT specialists, Canton A wanted to establish a VMS in the field of IT. To respect the implemented ceiling of five VMS classes, one class in the field of commerce had to be closed in return for the newly introduced IT class. While the demand for training at VMSs is levelling off in the field of commerce, the interest of young people in IT professions and the need of companies for trained IT specialists is growing strongly. A representative of the cantonal educational administration recently stressed, that due to this situation "we will have to talk about the abolition of the five-class ceiling in the future" (Document 10, anonymized). The cantonal government would have to decide on this issue.

Canton B: Access control by means of an educational choice tool

Canton B has an above-average proportion of students at VMSs and a below-average proportion of dual VET apprentices at the upper secondary level among the German-speaking cantons of Switzerland. Furthermore, Canton B was forced to launch a savings program. The restriction of VMSs was considered to have the potential to cushion the high cost-cutting pressure in the canton. Therefore, legitimized by the market-based argument of saving costs, Canton B's existing admission procedure for VMSs has been supplemented by the 2018/2019 school year. Since then, students who aspire to en-

ter VMSs must go through an online educational choice tool in addition to the school grade requirements. This tool consist of a four-hour online self-assessment (Document 11, anonymized), that aims to "clarify and consolidate" (Document 12, anonymized, p.1) the educational decision of young people after lower secondary school and intendeds to "lead to more conscious decisions about a school-based or dual career" (Document 12, anonymized, p.1). In the first step of the online self-assessment, young people are given information on educational options at the upper secondary level, in tertiary education, and in further education. In the second step, by means of specific questions to be answered, the young people must deal with the question of whether a VMS is the best choice for shaping their own careers. This involves looking outwards (what alternative educational options are there?) as well as inwards (what are the young people's goals, expectations, interests, and abilities?). In this way, the young people once again come to an understanding of their aptitude and inclinations. Once the young people have completed all the nine tasks of the assessment to be solved, they receive a written confirmation. When applying to a VMS, this confirmation must be enclosed showing that the young person has considered the question of "whether education at a VMS is the best choice for shaping his/her own career" (Document 13, anonymized, p. 74). Beyond the official justification of cost reductions (market convention), the stakeholders interviewed noted that the competitive dynamics between dual VET and VMSs in Canton B (Document 14, anonymized) as well as the related "war for talents" (Interview B1, former head of a Specialized Middle School, see footnote 16) had an influence on the political decision to introduce this steering instrument to regulate the access to VMSs. The following quote emphasises this fame-oriented argument, by referring to the educational choice tool's arrangement:

> From my point of view, the questions are asked in a way, of course, to make sure that EVERYONE is aware that there is still dual VET. Like for example 'Is it true that a VMS is the best way to become a physiotherapist?' And then of course the students must click 'No, it's not the best way, it's just as good as with dual VET and an additional vocational baccalaureate'. (Interview B2, head of a Specialized Middle School)

According to leading persons of VMSs, the new admission procedure is therefore also about a "clearly lobbying for [dual, comment of the author] VET", which aims to "ensure that [dual] VET is supported" (Interview B1, former head of a Specialized Middle School). We can interpret this online educational choice tool as a steering instrument of soft governance (Moos, 2009): Through governance by guidance, in Canton B "the political ambition to govern is realized by shaping citizens' desires and ambitions" (Romito, 2017, p. 1) and thereby the number of training places at VMSs is steered in a passive and indirect way.

Canton C: Suspension of funding for out-of-canton attendance of VMSs

For young people of a specific part of Canton C, which is geographically somewhat cut off from the rest of the canton, VMSs can only be reached by a lengthy journey. For this reason, students of this part of the canton were previously allowed to attend VMSs in neighboring cantons. For Canton C the out-of-canton attendances of VMSs meant compensatory payments to the neighboring cantons and thus an additional burden on Can-

ton C's financial budget. Because of Canton C's tight financial situation, a cost-cutting package was decided. This package included a.o. stopping the contributions for out-of-canton attendances of VMSs. Students therefore have no longer access to VMSs of the neighboring cantons (Documents 15 and 16, anonymized). The following statement by a representative of the cantonal parliament indicates that beyond the market-oriented argument of a cost-cutting measure, the limitation of access to VMSs in Canton C has also been justified with reference to the convention of fame, in the sense of strengthening dual VET and protecting its reputation as "the real dual VET" by avoiding any form of competition:

> In principle, Canton C is committed to strengthening VET, that is, the real dual VET. With the full-time VMSs we are directly competing with dual VET. […] It is a financial policy proposal, but at the same time, it is also a strengthening of the dual VET pathway. […] There is a conscious intention [in Canton C] to steer in this direction. (Document 17, anonymized)

Summing up, in the three cantons studied, the restriction of access to and supply of VMSs is justified by the argument of reducing the cantonal expenditure on education. However, beyond this market-based justification, a particular connection between the steering instruments introduced to restrict VMSs and the fear of competition for or weakening of dual VET through VMSs has been identified. Thus, the market and the fame convention as central logics for the justification and legitimation of the specific steering instruments introduced in the cantons, form a reinforcing legitimatory compromise.

5.4 "Dual VET justification standard"

The criticism addressed to VMSs and the justifications of cantonal steering measures to restrict VMSs mainly rely on three conventions: market, domestic-company, and fame. To grasp these repeatedly mobilized orders of worth and justifications, the term "dual VET justification standard" is introduced. This dual VET justification standard, understood as a cognitive compromising format, in which the conventions are positively related to each other by actors (Diaz-Bone, 2009; Knoll, 2013a, 2013b). It is often mobilized and used by representatives of dual VET to devalue and criticize VMSs in situations of coordination and negotiation, as well as to emphasize the contrasting qualities of dual VET. The following list summarizes the central argument per convention:

- *Market convention*: VMSs are much more expensive for a canton than dual VET. Dual VET therefore relieves the burden on cantonal education expenditures.
- *Fame convention*: Strengthening the appeal, reputation, and image of dual VET for high-achieving students is a national education policy goal. VMSs are an undesirable competition and threat to this goal.
- *Domestic-company convention*: In dual VET, young people are embedded part-time in a host company and thus in a real working environment as apprentices. In VMSs, in contrast, most of the time apprentices are in a classroom that is far removed from re-

ality. During their internship in a company the apprentices are more seen as trainees than real company employees as is the case for dual VET apprentices.

The dual VET justification standard is framed by a broad dispositive of valorization and is repeatedly mobilized and used for justification. Therefore, it has acquired a high degree of scope, stability and power within the political governance of the transition to upper secondary vocational education in German-speaking Switzerland. This unfolds a "coordinative power" (Thévenot, 2014, p. 18) in the sense of a strong legitimizing effect within the coordination of actions in situations of negotiations. This is, for example, the case when debating the implementation of steering instruments, that on the one hand restrict and weaken VMSs, and on the other protect dual VET as the "unquestioned standard" (Esposito, 2022; Leemann, 2019) of Swiss VET. The "dual VET justification standard" thus functions as an unquestioningly accepted and supported standard of justification in the coordination of the governance of the transition to upper secondary education.

6 Conclusions

This study investigated the significance of VMSs in the political governance of the transition to upper secondary education in Switzerland. The results show that supporters and opponents of VMSs rely on the industrial and civic convention to valorize the qualities and functions of the VMSs or market, fame, and domestic-company conventions to devalue and question them. In the three German-speaking Swiss cantons studied, a governance strategy restricting VMSs could be identified, which was manifested as a ceiling to the number of VMS-classes in Canton A, the control of access with an online educational choice tool in Canton B, and the suspension of funding for out-of-canton attendance of VMSs in Canton C.

From a power-theoretical point of view and focusing on the Swiss VET system as a whole, these limiting steering strategies pursued, and instruments implemented should be understood a.o. as attempts to control, stabilize, and reproduce the balance of power between dual VET and VMSs, resp. dual VET and school-based VET in general, within the Swiss VET in favor of the former. By doing so, the status of dual VET as the "unquestioned standard" (Esposito, 2022; Leemann, 2019) of Swiss VET can be further protected. As this paper has shown, the sacrifices for this are made (among others) at the expense of VMSs, that get restricted in their further development by cantonal VET policies.

VMSs are therefore subject to a dual VET hegemony in German-speaking Switzerland, which clearly positions VMSs subsidiary to dual VET. As the results show, this dual VET hegemony and the VET policy measures necessary to maintain it are legitimized by dual VET representatives based on a so-called "dual VET justification standard". This highly stable compromising cognitive format between the market, domestic-company, and fame convention, is mobilized by representatives of dual VET when justifying political measures in favor of dual VET and/or at the expense of VMSs. The dual VET justification standard unfolds a high "coordinative power" (Thévenot, 2014, p. 18), in the sense of a strong legitimizing effect, in the political governance of the transition to the upper secondary level in German-speaking Switzerland.

The (vocational) education policy question of what educational pathway students choose after compulsory education is a central area of tension within the Swiss education landscape (Kriesi et al., 2022). This is not only visible and manifest in well-known competitive dynamics between general education and VET at the upper secondary level (a.o. Jäpel, 2016; Kiener, 2007; Schellenbauer et al., 2010; Wettstein & Amos, 2010), but, as this study has emphasized, also *within* the Swiss VET system between dual and school-based VET programs. Different educational pathways correspond to different interests, competencies, and needs, address different biographical circumstances and life plans of young people, and reflect the variety and quality of the Swiss education system. At this point the question arises to whether governance strategies and instruments that steer this variety of (vocational) education programs, in favor of dual VET and at the expense of other (school-based) alternatives, do correspond to Switzerland's typical liberal-democratic social order, according to which the talents and inclinations of individuals should be the basis for their choice of education (Leemann, Esposito & Hafner, 2023). And does a strategy of strengthening dual VET at the expense of VMSs really contribute to fully exploit the talent potential of Swiss VET?

Overall, and looking beyond the borders of the Swiss education system, the results affirm that the distribution of young people across various education programs in an educational system should be understood not only as the consequence of individual preferences and decisions, but also as resulting from strategic steering interventions by a country's education policy.

7 Bibliography

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The Transition from the Education to the Employment System in Japan – A Balancing Act between Continuity and Change[1]

Peter-Jörg Alexander

Abstract *Japan's 'market model' of vocational training shows continuities and changes: On the one hand it can be stated that the country's transition from the school system into employment remains quite stable. On the other hand, especially demographic, societal and cultural changes lead to a higher academization rate with consequences for the secondary and tertiary vocational training institutions. Even universities and colleges more and more diversify their curricula with vocational compounds such as 'employability', 'vocationalism' and 'career education', trying to cope with less educated youth to ensure a smooth transition into the employment market. Moreover there are recent changes in the recruitment procedures of the companies, such as hiring mid-career employees that might lead to further changes in the ways of Japanese vocational training.*

Title *The Transition from the Education to the Employment System in Japan — a Balancing Act between Continuity and Change*

Keywords *Vocational Training, Secondary and tertiary Instuítutions, Academization, Threshold Concept, Recruitment*

1 Introduction: Cultural background, definitions and questions

"Send them to us 'snow-white', in the company they are 'rightly forged'" (Imai, 1994, p. 97) is the motto of a largely 'frictionless' transition after school and university into the

1 This article is based on the recently published country study in the 'Internationales Handbuch der Berufsbildung. Japan' (Eswein, Alexander & Pilz 2023) and a contribution by Pilz, Sakano and Alexander (2023).

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Japanese vocational training system (Pilz & Alexander, 2007, pp. 28–29). Comparative vocational education and training research still refers to the so-called 'market model'[2], which emphasises company-specific vocational education and training in Japan; the importance of state-regulated 'vocational education and training' in the country is very low (Crouch, Finegold and Sako, 1999, pp. 24–25, 201–205; Di, 2007, p. 18; Euler, 2013, p. 66). Educationally, meritocratic contexts of the Japanese 'society of education pathways' (*gakureki shakai*) have always contributed to degrading public 'vocational education' to a marginal phenomenon (Busemeyer, 2013, p.7; Coulmas, 2003, p. 178; Kaneko, 2019, p. 31). This divergence – for example, in comparison with Germany – leads to a need for clarification, which arises on the one hand from structural-functional differences and on the other hand already from linguistic imprecision (Alexander, 2004, pp. 343–353; Alexander, 2011, p. 157). Although many publications are available in German or English, current Japanese publications are rarely consulted here. This makes the transparency of an international dialogue more difficult (see, for example, Pilz 2011, p. 10). And if German or English translations of Japanese texts are available at all, it often turns out that the content of the terms has been translated carelessly, to say the least. The very term 'vocational education' is already misleading, because in Japan, according to Confucian tradition, there are no 'professions', no 'vocatio', therefore no 'job profiles' and least of all, a strictly state-

2 The "market model" is to be seen in contrast to the "state" or "school model" and the "dual or cooperative model" (also "state-controlled market model"; Georg, 1989), which is, however, not entirely consistent in itself (Deißinger & Frommberger, 2010, pp. 346–347; Lauterbach, 2003, pp. 17–18, 265–267). There are further and more meaningful models, for example by Crouch, Finegold and Sako (1999, pp. 24–25), in which Japan is the only country primarily assigned to the concept of "institutional companies", a model of comparative political economy with reference to vocational education and training (Busemeyer & Trampusch, 2012) or the "multi-perspective classification" focussing on vocational education and training processes in a multi-level approach (macro, meso and micro level) by Matthias Pilz (2017; see also Pilz, Sakano and Alexander, 2023, pp. 86–88). A distinction is also made between the 'business concept' (e.g., Japan) and the 'occupational concept' (e.g., Germany) (Pilz, 2011, p. 274–293).

regulated vocational education system (Busemeyer, 2013, p. 7; Georg, 1994, p. 177; Drinck, 1997, p. 205; Pilz & Alexander, 2016, p. 209).[3]

Despite superficially observable tendencies towards continuity, education policy in the Far Eastern island country is undergoing profound change. Processes of differentiation are not only evident in the in-company training of large, medium-sized and small companies, but also affect the state education system, which to a certain extent provides preparatory training: Demographic changes and the associated tendencies towards a shortage of labour on the employment market[4] as well as other, in some respects clearly noticeable, socio-economic developments over the last 30 years have also led to changes in the education sector to a large extent: in recent decades, there has been an adjustment of the previously strict separation between general education and in-company training with the result that an erosion of the general academic education system has taken place in favour of the inclusion of 'vocational' components. Here, buzzwords such as 'employability', 'vocationalism' or 'career education' (*kyaria-kyôiku*) are used (Ito, 2014, pp. 177–178, 181–3); they are being incorporated into (higher) education curricula in order to prepare less able young people in particular for working life in a more targeted manner; in Japan, too, there are increasing signs of a 'fitting-into-the-company' issue. Above all, the clientele of universities now also includes young people who, as a result of the 'lost decade',

3 If a translation is necessary, 'vocation' should be understood in the sense of a value-neutral American 'profession' or 'occupation'; other common English-language translations can also be 'business education', 'workplace learning' or 'human resource development/management' (Negrini, 2016, p. 9). Against the background of a Shinto-Buddhist and Confucianist social order, the term 'vocatio', a 'vocation', of which the roots are anchored in the Christian faith, cannot be localised (Blankertz, 1975, pp. 2–3). This makes it all the more confusing when English-language publications, e.g., in publications by the *kôseirôdôshô* (Japanese Ministry of Labour, Health, Labour and Welfare [MHLW]), always refer to 'vocational training', although one should rather assume technical and economic specialisations here. The Japanese term is '*shokugyô*', which can best be described etymologically as 'employment, job' (*shoku*) and 'work, deed' (*gyô*) to be learnt (Henshall, 1989, pp. 75, 224). Nevertheless, the loan word '*berufu*' (deriving from the German word 'Beruf', 'vocatio') is still used in Japan, but it refers more to 'temporary jobs on the everyman's market', especially for female workers (Demes, 1994, p. 258). Consequently, it is not possible to speak of a vocational training contract between a prospective company employee and his company. Rather, it refers to the establishment of a working relationship between a company (*kyujinsha*) and an applicant for a job (*kyushokusha*) (MHLW, 2017, p. 1). However, the term 'vocational training' is still used in this article for pragmatic reasons.

4 Due to the rapidly declining number of potential employees in the course of the demographic development towards an ageing population, Japan is dependent on utilising all available human resources. The population of 18-year-old adolescents alone has fallen by more than 50%, from around 2.49 million in 1966 to 1,120,000 in 2021 (MEXT, 2022, p. 151). Only in the years from 2017 to 2022, the number of mostly 18-year-old high school graduates fell further by around 10% (from 1,099,556 in 2017 to 1,000,600 in 2021 (MEXT, 2022, p. 336). In July 2023, the unemployment rate was a low 2.7 per cent (Statistical Bureau, 2023). Therefore, Japan is dependent on utilising all available human resources. Higher paid, older employees are now staying longer in companies and postponing retirement (Dressler, 2017, pp. 1–3; Kitagawa, Ohta & Teruyama, 2018, pp. 10–11; Suchan, 2018). After the company retirement age (usually 60 years) has been exceeded, a new employment contract is concluded. (Haghirian, 2016, p. 2; OECD, 2017, pp. 28–30; Statistical Bureau, 2023; Witzke, 2017, p. 358–364).

belong to the group of people[5] who previously earned their living as 'freeters' or 'part-timers'.[6] The increasing level of precarity and tendencies towards individualisation in the direction of less work and more leisure time (Yamashita, 2019, pp.12-14) among the young population forced the Japanese government to introduce reforms that led, among other things, to easier access to higher education (Goodman, Hatakenaka & Kim, 2009, p. 4; Ito, 2014, pp. 178–179; Ito, 2016, pp. 192–193).[7] This context gives rise to the following questions for this article:

1. How is the Japanese education system structured (Chapter 2)?
2. What does the 'transition system' from the Japanese education system to the labour market look like (Chapter 3)?
3. What is the recruitment practice in Japan like (Chapter 4)?
4. What trends of continuity and change can be seen in Japan's 'market model' (Chapter 5)?

2 The Japanese education system

2.1 Overview of the school system

The top PISA results in a country comparison already make a clear statement: The students of the Japanese education system are still among the best in the world. Even in the course of a reform period from the year 2000 onwards towards less teaching subjects and easier access conditions for tertiary educational institutions, which is also criticised as 'cuddle education' (*yutori kyôiku*), school performance has only slumped slightly (Ikegami, 2014, pp. 28–30; MEXT, 2013, p. 5; MEXT, 2017, p. 76). "Ganbatte!" "Do your best! Hang in there and don't give up!" is the catchphrase for a level of work discipline that is demanded very early in a Japanese person's schooling. Even today, the basic virtues developed in Shintoism, Buddhism and Confucianism, such as discipline, striving for harmony within the group, loyalty and the learning ability of Japanese company employees,

5 The bursting of the real-estate bubble in the early 1990s and the subsequent 'lost decade' were the first harbingers of profound changes in the labour market and in many other areas of Japanese society (Coulmas, 2007, Chapter XII; Eli, 2004, p. 19; OECD, 2017, p. 28). Interestingly, the COVID-19 pandemic has not shown any significant impact on the labour market (Hori, 2020, p. 52–54).

6 'Freeter' is a term that was created in 1987 by Hiroshi Michishita from the combination of the terms 'freelance' and the German 'Arbeiter' ('worker'). 'Freeter' therefore includes all young people who are unqualified, refuse to be 'company men' and work part-time (Fujita, 2011, p. 31; Hommerich, 2009, pp. 65–66; Honda, 2005, pp. 5–7). The MHLW also uses the terms 'pato' and 'arubaito' (Kosugi, 2005, pp. 2–3; MHLW, 2016, p. 152). The currently improved economic situation in Japan has reduced the proportion of freeters from the peak in 2003 (more than 2 million) to 1.37 million in 2021, i.e., by around 23% in the last decade, which the Japanese Labour Office attributes not least to its own work-promoting measures (Hori, 2023, p. 52; MHLW, 2015, p. 294; MHLW, 2016, p. 152; Pilz, Schmidt-Altmann & Eswein, 2013, pp. 73–74).

7 For example, state subsidies guarantee the survival of universities, which are paid out according to the criterion of a willingness to reform (Ito, 2014, pp. 178–179; Ito, 2016, pp. 192–193; MEXT, 2016, pp. 12–13).

the 'salarymen', are cited as the main reasons for economic success. Virtues that – to put it pointedly – have their roots in the kindergarten (*yôchien*) and are continued in school (*gakkô*).[8] Education in the virtues required by the company in the sense of a 'company man' (Eswein, 1997, pp. 228–229) is therefore ultimately provided by the state education system. This means that general education schools still lay the foundation for later socialisation in the company, as school and university graduates are not only hired in the first place because of these virtues: in companies, training is based on the same principles and methods as in school (Alexander, 1994, p. 60; Drinck, 1997, pp. 213–214; Hendry, 2009, pp. 82–84; MEXT, 2013, p. 2).

The Japanese education system was created under the aegis of the American occupation. On 31 March 1947, the 'Basic Education Law' (*kyôiku kihon-hô*) was adopted and the so-called 6-3-3-4 structure[9] was implemented (Luhmer, 1972, pp. 95, 105, 278). On the basis of a non-compulsory three-year kindergarten period[10], compulsory schooling lasts nine years. In greater detail, the most important school types are as follows:

2.1.1 Integrated Centres for Early Childhood Education and Care

These municipal facilities include both preschools and day nurseries *(yohorenkeigata-nintei-kodomo-en)* and are attended by a total of 57.7 % of all children in 2021 (MEXT, 2022, p. 336). There are also a number of private preschools. Children already wear uniforms here (Japanwelt, 2023).

2.1.2 Elementary schools, lower secondary schools and upper secondary schools

In 2021, 99.96 % of 6-year-old children attended compulsory elementary (primary) school (*shôgakkô*)[11] for 6 years and compulsory secondary school (*chugakkô*) for 3 years (MEXT, 2022, p. 336). Despite only nine years of compulsory schooling (*gimukyôiku-gakkô*) most pupils take the entrance exam for the next type of school; since the early 1990s, more than 95 % of all 15-year-olds have attended the senior high school (*kôtô gakkô)*. Currently, the rate of registered secondary school pupils is as high as 98.8 % (MEXT, 2022, p. 336).[12]

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8 In this respect and expressed pointedly, future top managers are already moulded in preschool (Alexander, 2007, p. 346; Fujimura, 2004).

9 The MEXT (2009, p. 53) translates primary school as 'elementary schools' (6 years), middle school as 'lower secondary schools' (junior high school) (3 years) and high school as 'higher secondary schools' (senior high school) (3 years). This is followed by higher education, which is predominantly a four-year programme.

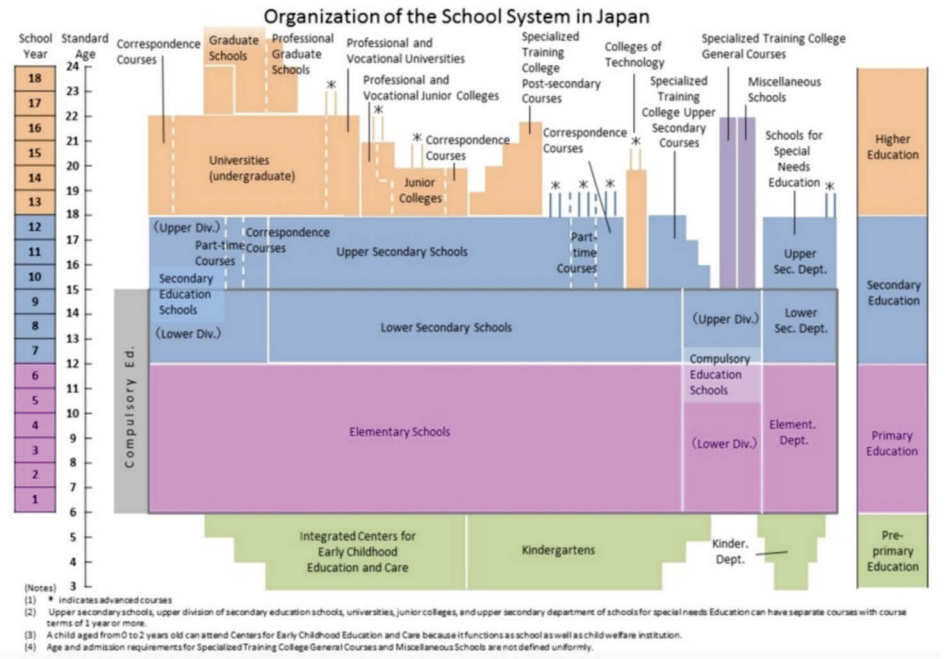
10 There are a number of pre-preschools (nurseries) where children are trained to be admitted to those prestigious preschools that have good prospects of progressing to prestigious schools and thus good prospects of later careers (Clark, 2005, p. 4).

11 The schools for special needs education/*tokubetsu shien gakkô*) (MEXT, 2023) are not the subject of this report.

12 The number of pupils has also fallen sharply as a result of demographic developments: in 1990, the number of secondary school pupils was still over 5.6 million, while the latest statistics for 2021 from MEXT show only around 3.2 million pupils (MEXT, 2022, p. 334). As a result, the number of schools across the country has also decreased: from just under 27,000 primary schools in 1960, around 19,000 still exist in 2021, of which just over 1% are private. The number of secondary schools has fallen from around 14,000 (1950) to 10,012 (2021), with private institutions currently accounting for around 8%. The number of secondary schools fell from a high of 5,500 (1990) to

Almost all young people who attend a secondary school leave with a secondary school diploma, the *kôtôgakkô sotsugyô shômeishô* (ISCED level 3); there are virtually no dropouts or early school leavers (OECD, 2017, p. 119).[13]

Figure 1: The education system in Japan



Source: MEXT ,2023;[14] OECD, 2015[15]

4,824 (2021); of these, more than a quarter are already private (1,321), while the rest (3,589 institutions) are state-run. (MEXT, 2017, p. 452; MEXT, 2022, p. 334).

13 Almost 1.5% of all pupils at secondary schools leave school without a qualification; the drop-out rate is 4.5% across all school types (OECD, 2017, pp. 118–119).

14 The Japanese Ministry of Education (MEXT) is not only responsible for the structures of the Japanese education system, but also for determining curricular content and the number of lessons to be taught (UNESCO, 2011, p. 11).

15 In this context, the references to the ISCED criteria (International Standard Classification of Education) of UNESCO for the comparison of international education systems from 2011 (Bohlinger, 2012, p. 16; OECD, 2017) are interesting; it led to an expansion of the tertiary sector internationally, which at the same time led to an appreciation, in particular, of the areas below the Bachelor's level and fundamentally resulted in increasing rates of academization (Schwarzenbacher, 2015, pp.1-2). In addition, they offer an essential opportunity to compare school forms and degrees internationally. However, they are only implicitly included in the statistical reports of the Japanese Ministry of Education, the '*monbukagakushô*' or '*monbushô*', (Ministry of Education, Culture, Sports, Science and Technology/MEXT). Besides, they are rarely mentioned explicitly in Japanese publications, and are not even mentioned in the current MEXT White Paper (2022).

Secondary school profiles can basically be divided into three categories: general, specialised and integrated. While the general profiles focus on typical general education content and topics, the specialised focus areas are characterised by 'vocational' and technical topics for those young people who are not counted among the elite in terms of performance and who wish to apply for specific operational and technical positions in the various 'occupational fields'. They often do not have good prospects of long-term employment in a high-ranking company.[16] In addition to the compulsory general education, integrated forms of schooling provide rudimentary specialised vocational and technical training. The fact that six-year 'comprehensive secondary schools' (*chûkô kyôiku gakkô or chûkô ikkankô*), consisting of middle and high schools, have been in existence since April 1999 is only mentioned in passing (Ikegami, 2014, pp. 310–312; MEXT, 2023; OECD, 2017, p. 112; UNESCO, 2011, p. 9).

Japan's general education system is often equated with the Shinkansen, the Japanese express train, as the post-war expansion has led to unprecedented competition for admission, the so-called 'exam hell' (*shiken jikoku*)[17,18] to the best secondary educational institutions. Only those who graduate from a high-ranking secondary school (*kôtôgakkô sotsugyô shômeishô*) and only those who pass the entrance exam to a high-ranking university have the prospect of a career in a high-ranking company or government agency. All other higher education institutions train graduates – analogous to the specialised forms of secondary school – who are predominantly distributed among less prestigious medium-sized or small companies. The competition to pass the examinations for the elite institutions was made more difficult by the expansion of the teaching subjects and an increase in the speed of learning (*shinkansen kyôiku*) (Haasch, 2000, p. 195) in the post-war period. This in turn led to the start-ups of numerous tutoring and cram schools (*juku/yobikô*),[19] which were and still are attended by the students who are most eager to learn.[20]

16 Various programmes are also offered here, including: agriculture, forestry and fisheries, industrial, business and housekeeping, health, science and mathematics (UNESCO, 2011, p. 9).

17 These are very tough entrance examinations for prestigious schools and universities, with high failure rates being the rule, so that the 'candidates' usually take several entrance examinations for alternative universities in case they fail at a school or university of their choice (Alexander, 2004, p. 345).

18 For admission to state universities, applicants must undergo two examination procedures: One is the standardised university entrance examination of the state and the other is the selection procedure of the individual universities. Private universities reserve the right to organise their own entrance examinations (Teichler, 2000, p. 334).

19 Passing the 'exam hell' before admission to a higher-ranking school or university is generally only possible by attending this '*juku*' (cram school) or '*yobikô*' (preparatory school) for the university entrance examinations for those persons who, by not passing the 'examination war', spend another year as so-called '*rônin*' (masterless samurai) at the '*yobikô*' and take a second attempt at the university entrance examinations (Teichler, 2000, pp. 334–335). The time required for their attendance after the normal school day (after 4:00 pm until sometimes 10:00 pm) in the evening is considerable. Pupils then often sleep in their regular lessons, as they rate private tuition as comparatively more important than the conventional, state-mandated lessons at schools (Alexander, 2004, p. 354).

20 For the explanation and meaning of *juku*, see Entrich (2016).

2.1.3 Institutions of Higher Education: Universities and formal state-tertiary 'vocational training'

59.6 % of all high-school graduates go on to study at a two-year junior college (5.5 %) (*tanki daigaku*)[21] or a university (*daigaku*) (49.3 %). Before the 'bubble' burst in the 1990s, the figure was 30.6 %, in 2000 it was already 45.1 % (MEXT, 2022 p. 336); a visible consequence of the demographic development and the continuing expansion of education in favour of universities; they can increasingly be seen as the largest 'vocational preparation' institution in Japan (Drinck, 1997, p. 216). A large number of students reacted to the increasingly tense labour market by staying in the education system for longer, hoping that a higher level of education would improve their chances of working in an attractive company (BBIB-iMove, 2005, pp. 40–42).

16.3 % of all high school students are currently enrolled in a third – most likely 'vocational' – type of higher education institution, the five-year technical colleges (Colleges of Technology/*kôto senmon gakkô*).[22] 17.9 % of all secondary school students move directly into employment (MEXT, 2022, p. 326.), the rest remain on the labour market as unemployed, non-employed graduates, 'freeters', 'part-timers' or NEET (Igami, 2014, p. 57). The high academization rate[23] of 76.3 % in total (MEXT, 2022, p. 336) is therefore the reason why Japan is often referred to as an 'educational society' (*gakureki shakai*) (Coulmas, 2003, p. 178).

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21 In the early years of the 21st century, a good 90% of all students were still female, as this type of higher education institution was traditionally attended for female 'professions' such as nursery school teachers and teachers, 'professions' in nursing, home economics and other social fields (Clark, 2005, p. 13; Drinck, 1997, p. 217; Goodmann, Hatakenaka & Kim, 2009, p. 7). In this respect, targeted 'vocational training' is already taking place at these junior colleges, which is aimed at direct use in the working world with a 'quasi-bachelor's degree' (*jungakushi or tanki-daigakushi*) or the 'final certificate of junior college' (*tanki daigaku shuryô shoshô*) (ISCED level 5b) (MEXT, n.d., p. 5; OECD, 2015). Master's degrees and doctorates play a role both in medical and technical disciplines and as proof of teaching qualifications at upper secondary and higher education schools (UNESCO, 2011, pp. 21–23). After completing their bachelor's degree, most people finish their university studies; only in very few cases are companies interested in the master's degree (*shushi-go*/two-year duration) (ISCED level 7) or doctoral degree (*hakushi-go*/three years) (ISCED level 8) (MEXT, 2022, p. 336).

22 With around 77% (*daigaku*) and 94.5% (*tanki daigaku*) and almost 94% (*kôto senmongakkô*) (MEXT, 2022, pp. 334–335) of all registered students, the private sector in Japan plays a decisive role in the post-secondary and tertiary education landscape. In addition to private universities, there are state and local universities (for a distinction, see MEXT, 2017, pp. 452–454): due to a considerable decline in students due to demographic change, the number of state universities has fallen from 100 to 86, which is also due to a number of mergers (Clark, 2005, pp. 8–9; MEXT, 2022, p. 334). Nevertheless, enrolment figures are increasing year on year thanks to easier access conditions at state universities, and the number in the private sector has also risen from around 480,000 in 1990 to more than 2.9 million (2021) (MEXT, 2022, p. 334; Clark, 2005, pp. 8–9).

23 'Academization' is – analogous to international developments – also a catchword in the Japanese higher education landscape; according to the ISCED classification of 2011 (UNESCO, 2011), in addition to universities (ISCED levels 6–8), both the two-year junior colleges (ISCED level 5a) and the five-year technical universities of applied sciences (ISCED level 5b) are classified as tertiary education (MEXT, 2013, p. 7; OECD, 2017, p. 112–113).

2.1.4 Colleges of technology, specialised training colleges and various 'vocational' schools

Colleges of technology/*kôtô senmon gakkô* are considered elite schools for targeted technical 'vocational' training in Japan (BIBB-iMOVE, 2005, p. 15; Drinck, 1997, p. 216).[24] They have a dual character, as they are assigned to upper secondary schools (3 years) on the one hand and to the university sector (2 years) on the other. Their importance has remained more or less constant at around 15 % to 17 % (MEXT, 2022, p. 336) and here around 80 % of participants are male. This is hardly surprising, as the programmes are usually five-year engineering courses. Young people therefore do not enter a general secondary school, but start their studies directly at these five-year technical colleges. These *kôtô senmon gakkô* differ most from other general education universities in the MEXT's educational map in that, like the junior colleges, they also have a more 'vocational' focus, although academic skills are also promoted (MEXT, 2016, p. 29). After three years, students acquire the vocational secondary school diploma, the *kôtôgakko sotsgyô shoshô* (ISCED level 3), and – like all other high school graduates – they can apply to universities for the entrance exams and thus for 'advanced engineering courses' *(kôtô senmon gakkô senkôka)*. However, as 'specialists' intended for an entrepreneurial career, the students of the special secondary schools have considerable disadvantages in the struggle to succeed in the above-mentioned 'exam hell' compared to the academically prepared secondary school graduates of the general secondary schools, as the examination tasks of the entrance exams are based on the content of the general education courses (Clark, 2005, p. 8; Goodman, Hatakenaka & Kim 2009, p. 11).

Following the three-year vocational secondary school, graduates receive a recognised higher education qualification below bachelor's level, the *jungakushi* ('quasi-bachelor', 'associate's degree') (ISCED level 5b), after two further years at the technical colleges (MEXT oJ, p. 5). These two years thus move into tertiary higher education or the academic sector (Goodman/Hatakenaka/Kim 2009, p. 9).[25]

A number of specialised training colleges (*senshu gakkô*) complete the picture of the education system under the Japanese Ministry of Education. They are very similar to technical universities of applied sciences, also have a clear 'vocational' orientation, and round off the spectrum of the education system orchestrated by the Japanese Ministry of Education (BIBB-iMOVE, 2005, p. 15).[26]

In addition to various vocational and technical secondary school courses as well as academically oriented 'vocational training' under the state sovereignty of the Ministry of Education (MEXT), there are a number of other 'vocational schools': 'vocational training schools', 'vocational training junior colleges' or 'technical development (training)

24 Their specialisms include mechanical engineering, information technology, electronics, chemistry, construction and commercial shipping (Abe, 1991, p. 13; Drinck, 1997, p. 216).

25 Students who already have a high-school diploma can immediately enrol in the fourth year of a College of Technology. Graduates of the five-year programme have the opportunity to apply for the third year of a university bachelor's degree. (Clark, 2005, p. 14; Hayakawa, 1993, p. 49; OECD 2015, pp. 76–78).

26 A more detailed description can be found in chapters 3.1 and 3.2 of the country study on Japan published in 2023 in the 'Internationales Handbuch der Berufsbildung. Japan' (Eswein, Alexander & Pilz, 2023).

centres'. They are operated either by the Japanese Ministry of Labour, the *kôseirôdôshô*, (MHLW) or otherwise by entrepreneurial or business-related, i.e., private institutes. Particularly with regard to the company-related institutes, it can be stated that well-functioning networks ensure the maintenance of these special 'vocational training' institutes (Hayakawa, 1993, pp. 51–52). There is an almost immeasurable amount of certificates that attest to completed measures or special qualifications and that can be used for job applications; in many cases, this increases the chances of being hired by companies (JILPT, 2011, pp. 10–11; Nishimura, 2011). The Japanese dual 'job card system' (*'jobu kâdo seido'*) is worth mentioning: Theoretical and practical elements are completed on a 'dual' basis, and there is no denying that the German dual system of vocational education and training is a role model. Compared to the German dual system of vocational training, however, this measure can be seen more as a pre-vocational training programme (Ichimi, 2012, p. 10; MHLW, 2015, pp. 295–296; Lippegaus-Grünau, 2013, p. 6).

2.2 Development trends in the tertiary education system

For the employment elite, it has always been difficult to get into Japanese universities (*daigaku*), but it has been easy to leave with a degree' (Ogawa, 1999, p. 22). Once the hurdle of the entrance exams has been overcome, the subsequent university period is easy; for once, the Japanese have the opportunity to relax from the stressful school days and take a holiday – at the expense of discipline. Almost all enrolled students complete their studies within the four-year 'standard study period' and are then available to the labour market at the age of 22 or 23 (Pilz & Alexander, 2007, p. 28). The degree (bachelor's degree/*gakushi shôgô*) (ISCED level 6) at the end of the study period was traditionally awarded almost free of charge.

Meanwhile, the increase in the rate of academization due to demographic and socio-political developments has led to a drastic drop in the difficulty level of some entrance exams. This has led to a battle for student numbers: in the past there used to be seven subjects up for examination, today there are often only two subjects, sometimes even just one subject, up for consideration. This means that lower-performing and less disciplined secondary school leavers also have a good chance of gaining a university degree, because nowadays it is often easy to get into university and just as easy to graduate. Anyway, especially the high-ranking universities, which continue to be committed to the future employment elite, are still exempt from this (Sakano, 2011, p. 135; Uenishi, 2011, pp. 86–87, 97–98).

It was and still is typical for students to enrol in various easy-to-manage courses in the first three years, while the fourth year is all about finding a job. This is the least of the companies' concerns; they look at which university the jobseekers come from, not at their academic achievements, as the school system has already provided all the necessary qualifications (Metzler, 2000, pp. 336–343; MEXT, 2013, p. 6; Ogawa, 1999, p. 22). In the case of graduates from lower-ranking universities, however, it is clear that a university degree can no longer be seen as a guarantee of good, lifelong or regular employment opportunities: while 81 % of all graduates found regular employment in 1990, this figure had fallen to 74.5 % by 2016 – despite the excellent labour market situation; this was a

noticeable drop, which was also related to the lower academic performance of graduating students (Uenishi, 2011, p. 87, 94; MEXT, 2022, p. 338).

Since the government-initiated amendment to the Japanese Education Act in May 2017, a significant differentiation can be observed in Japan's tertiary education structures: Universities and junior colleges are now to provide higher education geared towards vocational skills under the designations 'professional and vocational junior colleges' and 'professional and vocational universities'. Class sizes should not exceed 40 participants, and 40 % of lecturers must have relevant practical experience (Kaneko, 2019, pp. 33–34) This model is accompanied by the view that the relationships between universities and the employment system are changing significantly. The reform project has been underway since April 2019, and it remains to be seen how it will prove its worth (Kaneko, 2019, pp. 41–42; Bundesministerium für Bildung und Forschung, 2015).

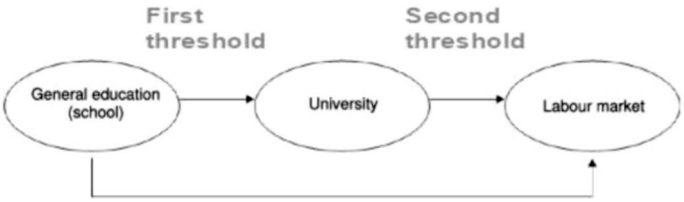
The increasing attractiveness of a university degree is also linked to a kind of countermovement in the two- to three-year short universities (*tanki daigaku*); here, the number of enrolled students is declining: in 1990, there were still around 480,000 or just under 16 %, by 2022, the number had fallen to almost 95,000 or 5.5 % (MEXT, 2022 p. 334); an indication of the declining importance of junior colleges. This was not entirely without consequences, as some of the junior colleges have transformed themselves into 4-year university institutions due to the declining development, as competition to the already existing universities (Goodman, Hatakenaka & Kim, 2009, p. 7).

Compared to universities and junior colleges, technical colleges (*kôtô senmon gakkô*) have the advantage that they can operate comparatively free of state regulations. As a result, they are more flexible and better prepared for future technical trends and requirements from business practice, and they integrate their graduates into the labour market more quickly: 56 % (with a declining trend) go directly into practice (MEXT, 2022, p. 338).

3 The transition from the education system to the labour market

In the past, the lack of 'vocations' led to a rather subordinate role of independent, state-regulated vocational training, which can be well illustrated by the 'royal road' of the so-called 'threshold concept' for Japan, according to which the transition from the school or university system to the employment system was usually direct. As a result, state-regulated vocational training became – as mentioned above – rather marginal (Alexander & Pilz, 2004, p. 758; Pilz & Alexander, 2011, p. 270).

Figure 2: Threshold concept for Japan



Source: Pilz & Alexander, 2011, p. 270; Pilz & Alexander, 2020, p. 296; Pilz, Sakano & Alexander, 2023, p. 90

On the one hand – in line with the threshold concept – traditional 'preservation structures' still exist, which enable performance-orientated young people to make a smooth transition from high-ranking universities into stable, regular employment relationships with high-ranking companies as 'white-collar generalists' and thereby obtain a high-status position (Pilz & Alexander, 2011). On the other hand, the focus of state education policy has increasingly turned to the academization of young people who are less performance-oriented and threatened by precarious employment, as well as attempting to enhance the already poor image of 'vocational training' (Goodmann, Hatakenaka & Kim, 2009, p. 8). This does not appear to be easy, as its negative image is deeply rooted in the cultural realities of the Far Eastern island country (BBIB-iMOVE, 2014, p. 22; Eswein, 2016, p. 229). The aim of these efforts by the Ministries of Education and Labour is to create better employment prospects in companies for the less able young people, the 'non-elite university students' (Igami, 2014; MHLW, 2015, pp. 291–293). Together with demographic and economic changes, the drive towards academization is leading to a change in the higher education[27] landscape, resulting in a percentage increase in student numbers, particularly at universities. The threshold concept is therefore still evident. The academization efforts are supported by horizontal and vertical permeability between the different types of higher education institutions. For example, it is becoming quite interesting for university students to attend technical courses at the technical colleges or the various 'vocational' educational institutions under the aegis of both the Ministry of Education and the Ministry of Labour. Such certified additional qualifications are sought in order to obtain further application advantages in the competition for regular employment with companies (JILPT, 2011, p. 11). The lower the rank of a university, the easier the entrance exams are, the higher the chances of entry will be; private universities in particular will therefore be the most likely candidates for de facto horizontal and vertical permeability (Cedefop, 2009, p. 2; Goodmann, Hatakenaka & Kim, 2009,

27 The efforts towards academization are accompanied by efforts to counter the lower educational level of many young people through special 'vocational' support courses and 'career guidance/support centres' at higher education institutions and to prepare them for working life (Ito, 2014, pp. 181–183).; MEXT, 2013, p. 8; Terada, 2011, p. 107; Uenishi, 2011, pp. 96–98). Even general education schools have been increasingly offering career counselling for several years (Fujita, 2016; Komikawa, 2021, pp. 40–42).

p. 11; Zergani, 2015). Here, in turn, there are development trends that undermine the threshold concept.

In this context, close networking between the expectations of companies seeking employment and the associated willingness of universities to cooperate is of great importance, as it leads to integration efforts on both sides: The increase in the number of students studying for higher education qualifications is counteracted by the fact that degrees from lower-ranking universities in particular no longer necessarily lead to advantages when looking for work (Uenishi, 2011, p. 94; Uenishi, 2013, pp. 80–82). In addition, many underachieving young people are reluctant to accept company expectations in the direction of 'potential for personal growth' (Kaneko, 2014, p. 12). Increasingly easier access to university education means that companies hiring non-elite university students no longer have an exam-tested elite to choose from. It has therefore become more difficult to assess applicants in terms of their trainability and academic standards (Igami, 2014, p. 58). For the target group of 'non-elite university students', this is to be compensated for by the MEXT's goal of liberalising universities and including integrated career support in their curricula (Igami, 2014, p. 54; Ito, 2014, p. 183). This includes raising work morale, promoting 'professional' independence and mobility and developing employability skills (Ito, 2014, pp. 180–182; Kaneko, 2014, p. 19; Uenishi, 2011, pp. 96–97).

In addition, the introduction of technically oriented specialisations (*senmonshoku dagakuin*) in the research-oriented universities has led to a kind of poaching of successful technical degree programmes or 'vocational' measures in the fields of health and social services (nursing, psychotherapy) by the universities (MEXT, 2013, p. 5). These technical oriented disciplines to support social expectations and entrepreneurial educational aspirations entail a 're-learning' of essential virtues and a subsequent academization that should originally have been provided by the school education system. Curricular components of university education now include reading and writing skills, even the 1006 kanji characters, which are actually part of primary school education (Igami, 2014, p. 59). Furthermore, learning and communication skills, problem-solving strategies, teamwork and leadership, as well as ethical and social characteristics have been incorporated into the university curricula. These measures are rounded off by internships, in which students learn to adapt to the practical world of work in companies on the one hand, and, on the other hand, companies can gain a more intensive impression of potential applicants (Ito, 2014, pp. 181–182; Kaneko, 2014, p. 19; MEXT, 2013, p. 8).

4 The company's recruitment and training practice

The 1st of April each year not only signals cherry blossom season, but also the recruitment ceremonies for 'freshmen', the '*shin nyû shain*', are held across the country to mark the transition into the world of work for new employees. In a way, there is still a collective attitude here, visible in the many young people newly dressed in business outfits who, as one of their first 'training' tasks, keep seats free on blue plastic mats under blossoming

cherry trees for their work colleagues to celebrate the '*hanami*', the cherry blossom festival. (Alexander, 2013, p. 61; MHLW, 2017, p. 1).[28]

Despite all the appreciation for Japan's education system, it should be noted once again that 'vocational' or 'skilled labour training' must be considered a central weakness of the Japanese vocational training model from the outset; in the last decades of the 20th century, it was only further developed by the state in a very uncoordinated manner (Dore & Sako, 1998, p. 167; Goodman, Hatakenaka & Kim, 2009, p. 8). At the centre of all educational aspirations and status assignments is traditionally and still for the Japanese youth cohorts the culturally significant ideal of employment for life (*shûshin koyôsei*) as regular workers in a large company (*ichi-ryû gaisha*) or public institution that is as high-ranking and prestigious as possible; this is where independent preparation for the internal working world ultimately takes place as 'vocational training without a profession' (Eswein, 2016, pp. 230–231; Imai, 1994, p. 94; Nakane, 1991, p. 95). The unrestricted immersion in the company and the unconditional identification and loyalty to 'my company' corresponds to the traditional Japanese group culture, which was founded in prehistoric farming structures (Nakane, 1991, p. 95); the poaching of qualified employees experienced in many other countries (Pilz, 2009) can therefore be observed to a lesser extent (Pilz & Alexander, 2016, p. 215).

Company newcomers from a high-ranking 'brand university' are hired from the outset as permanent or core staff and therefore as versatile 'generalists'[29] (*ippan shoku*). In addition, there are broad-based specialists (*habahiroi senmongata*), e.g., engineers, who also find employment as regular workers, as 'lifelong' employees (Alexander, 2011, p. 162).[30] If, however, company newcomers (*shin nyû shain*) come from less important secondary schools, this is more of a hindrance to a career in the company; as 'blue-collar workers', as 'specialists'[31] (*senmon shoku*), they then mostly take the path to unskilled, temporary

28 Employment contracts are not on the agenda (Georg & Demes, 2000, p. 307).

29 In addition to the generalists, there are those who want to make a career and embark on the *sogoshoku*, the 'managerial career track' (Sano, 2016, p. 47).

30 Even though the recruitment of regular employees has increased somewhat in recent years, it should not be underestimated that companies are increasingly switching to hiring specialists as regular employees due to economic requirements (Igami, 2014, p. 65). Companies are increasingly taking advantage of this situation by outsourcing off-the-job training elements (OFF-JT) in order to influence not only universities, but above all other tertiary educational institutions, in their favour. (Igami, 2014, pp. 66–67; Ito, 2014, pp. 177–179)

31 Such 'narrower' specialists, who are regarded as '*semai senmongata*' for the technical field, often come from vocational high schools or Japanese technical schools, the *senmon gakkô*, if they are not university-educated engineers (Georg & Demes, 2000, p. 287).

employment (non-regular employment)[32] (Pilz & Alexander, 2016, p. 210; Kosugi, 1994, pp. 366–367; Nakazawa, 2014, p. 17; Georg & Demes, 1995, pp. 100–102).

Although the focus is on in-company qualification and socialisation and although Japanese companies are also increasingly addressing insidious suitability issues (Hori, 2019, pp. 8–13), it should not be ignored that – to put it bluntly – Japanese schools and universities are still regarded by companies as training grounds and preparation systems for a career in the workplace (threshold concept). Traditional good relationships, 'old boys' networks', between companies and schools, colleges and universities ('pipeline system') (Jambor, 2017, p. 149) are shifting recruitment processes to the state education system.

Japanese companies continue to favour the 'market model' with their very company-specific 'on-the-job training' (OJT), although 'off-the-job training' (Off-JT) elements are also found, for example, when subject-specific courses supplement the OJT offer (Ballon, 2005, p. 67). The company-specific OJT and Off-JT are complemented by the requirement for self-learning (Terasawa, 2011, p. 25).[33]

This 'market model' is still ultimately supported by the legal situation: company training is regulated by the Japanese 'Vocational Training Act' of 1969 *(shokugyô nôryoku kaihatsu sokushinhô*[34]). Strong tendencies towards preserving the pure market model are evident here, especially as there are no inter-company training regulations for enterprises; they decide entirely on their own in-house training (Art. 9ff.).

Even today, no special 'professional' training is generally expected. The desired skills can still be imparted predominantly through 'on-the-job training' (OJT) and long-term job rotation in addition to alternating 'theoretical training modules', the 'off-the-job

32 'Regular employees' (*seiki koyô*) are those employees who are directly recruited by their companies, who have permanent employment contracts and are at the complete discretion of their company management with regard to their working hours, work assignments – e.g., abroad and other matters. In return, they receive comparatively high salaries, lifelong job security and good prospects for an entrepreneurial career. By contrast, so-called 'non-regular' employment relationships (*hi-seiki koyô*) are less attractive; remuneration is lower, contracts can be terminated and their development opportunities are low. Finally, there is the category of 'restricted employment': this intermediate form refers to specialists who enter into permanent employment, but are limited in terms of their remuneration and career opportunities. However, they are not as freely available to companies compared to the employees of 'regular employees' (Shimanuki, 2016, pp. 1–2; Toda, 2016, pp. 70–72). The distribution between 'regular staff' and 'non-regular staff' was 63.1% to 36.9% in 2022, with the gender-specific distribution changing again to the disadvantage of female employees: 53.4% compared to 77.8% male regular employees (Statistics Bureau, Japan 2023, p. 131f.). Kitagawa, Ohta and Teruyama (2018) define the relationship between 'regular' and 'irregular workers' as a "dual structure of the labour market" (p. 10). It should not go unmentioned that women are increasingly involved due to the current labour supply surplus. They are increasingly receiving 'renewable contracts' as permanent 'non-regular workers' (Kanai, 2013, p. 88–110).

33 These include so-called 'correspondence', language, IT courses, etc. (Esser, 1994, pp. 181–182). Additional information can also be found on the Japanese book market: the self-learning literature is diverse, but basically always contains matters that are typical of Japan, such as bowing, serving tea, polite language and forms, and much more. (Kabushiki Kaisha Omu, 1994; Nikkei Business, 2014; Ogata, 2013). There are even manuals written only for women (e.g., Matsumoto, 2013).

34 The English translation is: 'Human Resources Development Promotion Act', published by the Japanese Labour Office (MHLW, 2006; Nishiyama, 2006, p. 208).

training' (Off-JT), via the company (Alexander, 2011, pp. 164–166; Pilz & Alexander, 2016, pp. 215–217).[35] The slogan "Send them to us snow white" mentioned at the beginning symptomatically means nothing more for the recruitment policy of large Japanese companies than that the trainees are brought up to be incorporated into their company (Imai, 1994, p. 97, Nagano, 2014, pp. 31–32). It is only in manual jobs, which are predominantly completed by graduates of lower-level schools, that the provision of special qualifications is advantageous (Alexander, 2011, pp. 160–161; Fürstenberg, 1994, p. 116; Kosugi, 1994, pp. 366–367). From this perspective, preschools and general education schools are already preparing students for the world of work; for an employable elite, it is not about specialised entrepreneurial skills, but about general virtues (Pilz & Alexander; 2016, p. 216).[36]

5 Outlook

Observing the Japanese education system, a dichotomy is clearly evident: on the one hand, continuity tendencies indicate that Japan will stick to its '6-3-3-4-shinkansen system'. On the other hand, the 'vocational' education landscape in particular is changing rapidly (Chapter 2). Despite the prevailing market model in Japan with its implications for in-company 'vocational training', it has been shown that not only does 'vocational' pre-training regulated by the Ministry of Education (MEXT) exist, but 'vocational' institutions supervised by the Ministry of Labour (MHLW) also play an important role in the Japanese educational landscape. It has also been shown that integrative endeavours have led to particular differentiation and permeability in the higher education system, especially for 'non-elite' students. This softens the ideal route via the still favoured 'threshold concept'; a further link between general education schools and the labour market are the transition opportunities in the form of various vocational institutions (Chapter 3). Toyota's recent decision to no longer stick to 1 April as the hiring date, but to flexibly set different hiring dates, especially for 'career starters' and experienced 'mid-careers' (Yahoo, 2019, pp. 1–2; Hennings, 2021, pp. 49–51), shows that this is leading to changes in hiring practices. Nonetheless, continuity is also very pronounced here, with newcomers in particular still being integrated into the company systems on 1 April and OJT and OFF-JT still being the order of the day (Chapter 4).

35 Despite all the company-specific features of the OJT, there are roughly five phases: 1. Collective initiation rituals, 2. Brief introductory OJT, 3. Assignment to specialist departments with long-term OJT, 4. Assignment of responsibility for dispositive activities and 5. Assignment to career paths (Alexander, 2011, p. 163; these processes are described in more detail in Eswein, Alexander and Pilz 2023, chapter 4.4). There are two types of Off-JT: 1. Further training in the direction of career planning and 2. Special vocational-technical training (Fujimoto, 2018, p. 16). This is different in Germany, where essential aspects of vocational training are legally fixed nationwide by the 'Vocational Training Act' (Berufsbildungsgesetz) of 1969 (Arnold & Gonon 2006, p. 101).

36 For example, it is possible for a music graduate specialising in the violin to join the marketing department of a Japanese company; the company is traditionally only interested in 'biographical signals' (Alexander, 2011, p. 161).

In Japan, demographic and socio-cultural developments will, in all probability, also lead to a search for ways of absorbing employees affected by retirement through increasing substitution with female employees and longer-term employment of older people. It remains to be seen to what extent the door will also open for foreign workers. However, the trend towards academization involving 'vocational' training will continue. First and foremost, the urge for young people to obtain higher qualifications plays a role here. Yet it should not be underestimated that companies are taking into account the increasing pressure on the labour market and are increasingly offering regular jobs in good economic times – even in the COVID-19 period (Koji, 2020). Furthermore it is also recognisable that the recruitment of specialists will increase compared to the traditional recruitment of generalists, with the result that, in addition to practical company qualification, more and more 'outsourcing' is being carried out by corporate Off-JT (Alexander, 2011, p. 177): urgently needed skilled workers in companies are increasingly being trained by 'vocational' higher education institutions such as technical schools and technical colleges and even by universities (Igami, 2014, pp. 66–67; Ito, 2014, pp. 177–179). The pure market model is thus being increasingly 'undermined' in favour of at least formally state-regulated training of skilled workers at Japanese universities (Asao et al., 2014, pp. 4–5). Nonetheless, it is foreseeable that the quality of academic programmes will continue to decline as a result of fierce competition in the tertiary education sector due to academization, even if the top universities for an elite of future employees in high-ranking companies will presumably be able to set themselves apart in the future (Pilz & Alexander, 2016, p. 217).

Although the phenomenon of Japan represents a special case in terms of the changes in vocational and higher education, the question of the choice of perspective is often linked to the opportunities for comparison. If one compares education systems on the basis of simple typologies, such as the market model proposed here, with the dual or state model, then differences tend to come to the fore. The application of complex and multi-perspective classifications with several levels can, in turn, explore even more commonalities between different systems (Pilz, 2017; Alexander & Pilz, 2004), which opens up interesting research opportunities in the future, particularly for international comparative research into ('vocational') education systems.

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Political Participation of Business Organizations in the Construction of the Technical Vocational Education and Training System in Costa Rica between 1980 and 2021

Daniel Láscarez Smith

Abstract *This article focuses on the political participation of business groups in shaping the vocational education system in Costa Rica, covering the period from 1980 to 2021. Adopting a configurationist theoretical-methodological approach, the research was based on 14 semi-structured interviews, participatory observation and an analysis of historical documents. The research reveals how political-business groups linked to the attraction of foreign direct investment since 1980 have played a crucial role in defining the roles and functions of the Technical Vocational Education and Training (TVET) system in Costa Rica. The process of modernization and reform of the system since the 1980s was not only limited to ideological discourse, but was materialized through concrete political actions. This was translated into specific TVET policies that sought to transform curricula, financing, organization and relations between training institutions and transnational companies. In summary, the article highlights that during the last four decades, transnational business groups have played a decisive role in the configuration of the TVET system in Costa Rica, demonstrating their direct influence in the formulation and execution of policies that have shaped technical-vocational education and training in the country.*

Title *Political participation of business organizations in the construction of the technical vocational education and training system in Costa Rica between 1980 and 2021*

Keywords *vocational education; business associations; Costa Rica; TVET; dual apprenticeship; VET system; VET research*

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1 Introduction

During the beginning of my doctoral studies at the University of Osnabrück, Germany, in 2019, I observed that the scientific tradition around Technical Vocational Education and Training (TVET) studies in Costa Rica was practically nonexistent. However, the political and educational importance of TVET was experiencing a remarkable and accelerated growth. This phenomenon was mainly attributed to the implementation of dual training structures and the worrying increase in youth unemployment and poverty in the country (Láscarez Smith & Baumann, 2021).

In this scenario, various business chambers and governments influenced by business interests exerted significant pressure to reform the TVET system, with the aim of finding concrete solutions to challenges such as unemployment, low productivity and mismatches between the supply of educational services and the demands of the productive sectors.

Due to the active participation of entrepreneurs, a scientific interest arose in understanding the historical role they played in the construction of the current TVET system in Costa Rica. To address this inquiry, it was decided to segment the history of TVET into different stages: post-colonial (1821–1900), liberal (1900–1950), welfare state and import substitution industrialization (1959–1980), and finally, the era of economic liberalization (1980–2021). Although the historical division is not always the most suitable explanatory strategy, a series of specific political and economic arguments were used for this classification. In any case, understanding the period from 1980 to 2021 was considered to offer significant heuristic potential, given the profound structural transformation of the TVET system and the new productive and subjective configurations in Costa Rica.

Roughly since 1950, Costa Rica built its productive and social foundations through welfare policies and an import substitution industrialization model. Social successes in areas such as health, education and democratic stability have been widely recognized in the Latin American region. However, this development model faced a crisis due to various factors, including deficiencies in the administration of public resources, the international oil crisis and the social and fiscal tensions of the government since the early 1970s.

Starting in the 1980s, this situation led to the implementation of policies supported by the International Monetary Fund and the World Bank, as well as internal political dynamics related to deregulation, privatization and trade liberalization. This change led to the emergence of a new business elite, which also influenced the new functions and characteristics of the TVET system. Ultimately, these transformations distanced themselves from the vocational education and training functions that existed prior to 1980.

In this context, a new business group has emerged, referred to as "*the transnationalists*" (Alvarado 1981; Arguello, 1983). This conglomerate is closely linked to structural adjustment programs, initiatives aimed at attracting foreign investment, and economic liberalization. On one hand, they function as political actors representing the interests of transnational corporations, and on the other hand, they operate as entrepreneurs seeking new business opportunities and growth. This dynamic and multifaceted group embodies the strategic convergence between political and business actors, marking a significant milestone at the intersection of political decision-making and business development in this specific context.

From this empirical problematization, a theoretical challenge now arises: How can the concept of entrepreneur be understood and how can its social interactions be studied? Research on entrepreneurs, their actions, reasoning and ideologies has been a real challenge in the social sciences. In this study, entrepreneurs are conceived not only as rational actors in exclusive search of profit and profitability, but as social subjects who develop actions and worldviews within specific historical structures. The structures of vocational education and training reflect social, cultural, political and economic constructions in which various processes converge, such as conflict, consensus, acceptance, opposition, resistance and ideologies. In other words, TVET policies and systems are shaped by a wide range of social relations that express the political, economic and philosophical foundations of a society. This implies that studies of TVET systems must consider the history of the anthropological and sociological characteristics of society.

The research question posed to guide the research was: How has the organized political action of business groups been configured around the TVET system within the framework of the social, economic, and political transformations in Costa Rica from 1980 to 2021?

2 Theoretical-methodological approach: Latin American configurationism

Latin American configurationism stands as the theoretical-methodological basis of the present research, as Felix (2020) details, emerging in the 1980s and 1990s as a response to the growing critical reflections on methodologies in the Latin American social sciences. This approach questions the construction of meanings and the role of the subject, especially in contrast to hermeneutic and marxist perspectives.

The fundamental criticisms in those debates were directed towards the structuralist and culturalist determinisms present in Marxist and hermeneutic perspectives. According to Enrique de la Garza Toledo, considered the intellectual progenitor of Latin American configurationism, these currents proved insufficient to comprehensively address the complex relationships between subject and object.

In Europe and the United States, with the emergence of post-structuralist and institutionalist perspectives from the 1970s onwards, economic institutionalism, organizational theories and neo-institutionalist approaches were consolidated. Simultaneously, in Latin America, dependency theories, liberalization philosophies, the contributions of Wallerstein's world-system theories and other critical elements of capitalism were challenged and experienced a crisis.

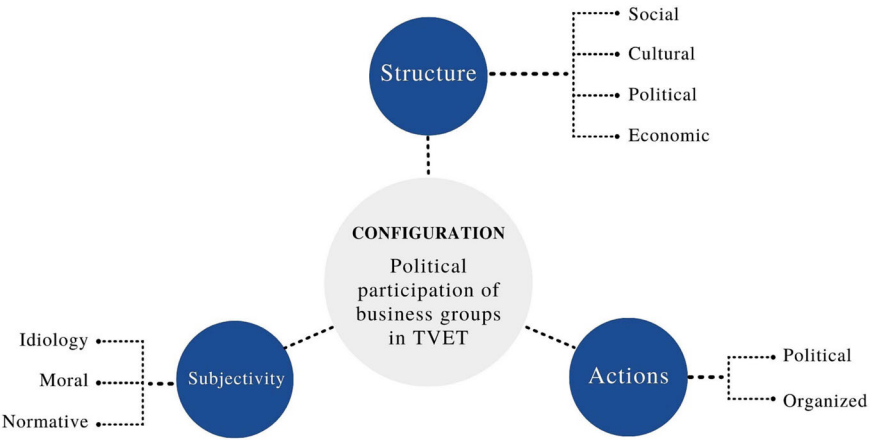
On the one hand, the dominant structuralist, functionalist and neo-institutionalist currents presented a capitalism without a subject, at least devoid of agency or reduced to economic rationality. On the other hand, the currents that sought to rescue the role of the subject neglected the importance of structure, perhaps for fear of falling into structuralism or poststructuralism.

In the 1980s, Mexican sociologist Enrique de la Garza acutely synthesized the above critique and embarked on the elaboration of a theoretical and methodological proposal to apprehend Latin American reality, giving rise to what is now widely known as configurationism. In essence, configurationism represents a theoretical critique of the predom-

inant currents in the social sciences, while constituting a scientific proposal to recover the centrality of the subject, its subjectivity and its structures, without falling into subjectivist or structuralist determinism.

As Felix (2020, p. 132) points out, configurationalism posits that reality must be understood as a process in which both structures and subjectivities intervene, and in which none of them determines reality, but rather conditions it. In this context, configurationalism conceives *configurations* as the relationships between structures, subjectivities and interactions, in an effort to comprehensively reconstruct the totality of reality.

Figure 1: Structure in the configurationist method.



Source: Láscarez Smith (2023).

Entrepreneurial subjectivities were studied, understood as the "process of creating meanings", or "the process of giving meaning to social action" (De la Garza, 2018). Structures are understood as the rules that guide recurrent ordered practices; practices entail rules, and rules exist in practices, that is, they do not exist in themselves, apart from practice (Giddens, 1984). Structures can be understood as the result of human actions that objectify themselves, becoming relatively independent of their creators and turning upon them. Structures can exist at various levels of abstraction; they are abstractions that depend on conceptions, but also on realities that exceed the subjectivity of the subjects (de la Garza 2018).

Social actions are social practices that attempt to influence the course of social life. They have a meaning that can be conscious or unconscious. They have a dimension of power over other actors to persuade, influence, deceive, defeat, win, dominate or obtain a certain dimension of the material reality (De la Garza 2018).

3 Methods

To understand the structural transformations and changes in the actions and subjectivities of entrepreneurs and their organizations, this study employs a qualitative approach. This choice is rooted in the recognition that qualitative methodologies allow for a more in-depth exploration of complex social relations compared to positivist approaches. Furthermore, qualitative research aligns more closely with the research object, providing depth, richness, interpretative insights, contextualization of the environment, attention to details, and an exploration of unique experiences. As Hernández-Sampieri et al. (2004) articulate, qualitative research offers a fresh, natural, and holistic perspective on phenomena while affording the researcher flexibility in their investigative pursuits.

The selection of study subjects adhered to two primary criteria: 1) prior research experience in the Costa Rican business sector and 2) qualitative inclusion and exclusion parameters.

The first criterion, "previous experience", pertains to research undertaken on the national landscape of vocational training programs in Costa Rica in 2014. This investigation facilitated a comprehensive understanding of key stakeholders—business, institutional, union, public, and private—involved in Technical and Vocational Education and Training (TVET). Active participation in the tripartite dialogue table initiated by the International Labour Organization (ILO) in 2017, aimed at establishing a dual apprenticeship model, facilitated contact with business representatives pivotal in formulating TVET policy. During the study on the costs and benefits of TVET in 2017, interactions with ten managers and business owners keen on engaging in apprenticeship programs offered insights. Subsequently, research on business perceptions of the dual apprenticeship policy in Costa Rica pinpointed optimal business groups for inclusion in this study. These prior experiences informed the establishment of inclusion and exclusion criteria for subjects and business organizations participating in the current research.

The second criterion, "inclusion and exclusion criteria", delineates the essential characteristics for subjects and organizations to be considered eligible for participation, as well as those characteristics precluding participation.

For inclusion criteria, business organizations were defined as chambers or business associations. Chambers align with specific economic sectors (e.g., tourism or agriculture), while business associations coalesce around shared economic or political objectives transcending individual sectors (e.g., the Business Alliance for Development). Recognized by both business entities and the state, formal business associations advocate for private interests (e.g., COMEX[1] or CINDE[2] It was imperative for these associations to maintain a department or unit dedicated to TVET development, exhibiting consistent and recognized political engagement during the study period. Additionally, individuals and representatives affiliated with business associations were required to lead the TVET department or own/manage enterprises, possessing sufficient knowledge about TVET.

Exclusion criteria encompassed business organizations lacking demonstrated involvement in TVET matters, informal entities, and those unrecognized by the state or

1 Ministry of Foreign Trade

2 Costa Rican Coalition of Development Initiatives

other business organizations. Matters unrelated directly to TVET development were also excluded from consideration in this research.

To conduct this research, a series of 14 semi-structured interviews were undertaken, with eight of them directed towards representatives of prominent business organizations in Costa Rica:

1. The Union of Chambers and Companies of the Private Sector of Costa Rica
2. The Chamber of Industries of Costa Rica
3. The Chamber of Tourism of Costa Rica (CANATUR)
4. Costa Rican Coalition of Development Initiatives (CINDE)
5. Costa Rican-German Chamber of Commerce (AHK)
6. Chamber of Information and Communication Technologies (CAMTIC)
7. Chamber of Free Trade Zones
8. Business representative on INA's Board of Directors

The second set of interviews comprised three discussions with representatives of Technical and Vocational Education and Training (TVET) institutions involved in coordination with the business sector. These included officials from INA, MEP, and UTN who collaborated with Group 1. However, it is noteworthy that these individuals possessed the subjectivity of public officials rather than entrepreneurs, despite their claim to be responsive to business interests.

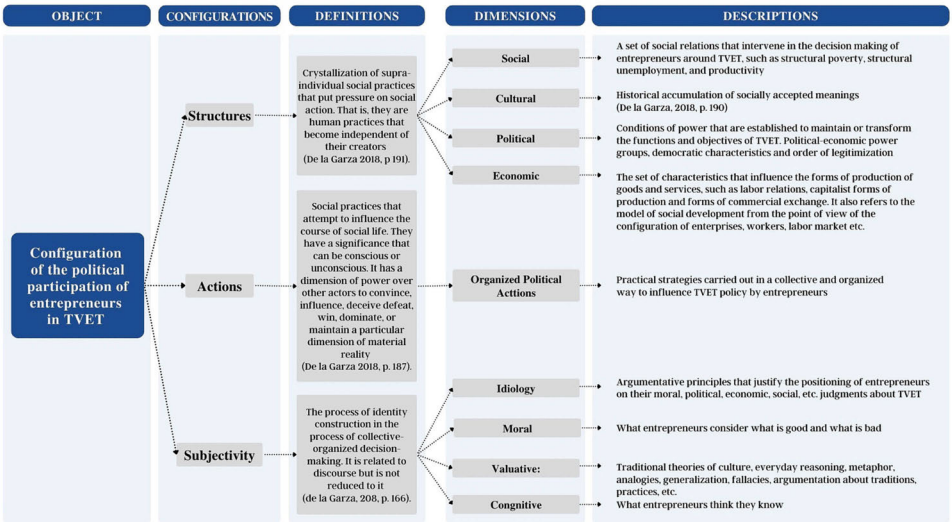
1. Directorate of Technical Education MEP and MEP's Business Linkage Department
2. National Apprenticeship Institute
3. National Technical University

The third group of interviewees consisted of experts in the field of TVET in Costa Rica. The first expert held senior positions in the Directorate of Technical Education of the MEP for three decades and played a pivotal role in implementing reforms and changes in the TVET system during the study's relevant period. He is now retired and works as a TVET policy advisor in Costa Rica. The second expert was responsible for overseeing the implementation of the first pilot plan in dual apprenticeships in Costa Rica in 1995 within the framework of cooperation between Germany and Costa Rica. This group also included a social scientist specializing in enterprise and organizational studies in Costa Rica.

1. Expert 1
2. Expert 2
3. Sociologist expert in business studies

The operationalization of the problem and the general categories can be seen below:

Figure 2: Configurations, definitions, dimensions, and descriptions of the object research.



Source: Láscarez Smith (2023).

4 Results

4.1 TVET and economic liberalization

During the crisis and the weakening of the welfare state, new conceptions of social and economic development emerged, dominated by liberal theses. New power groups called "transnationalists" presented a development alternative based on financial "modernization" as a strategy for insertion into the capitalist market (Alvarado, 1981).

For this new political class, privatization and economic liberalization were the most effective ways of slowing state growth and accelerating the stagnant growth rates of certain economic groups. Of course, the neoliberal discourse was also presented as an answer to the problem of poverty in society through the idea that the fewer barriers companies had, the more employment opportunities they could create. The economic model promoted was that of financial modernization. Financial modernization was no longer understood as nationalization, but as financial openness. It should be remembered that bank nationalization was the basis on which the welfare state was built. Since the Costa Rican Development Corporation (CODESA) (Raventós, 1995, pp. 10–13) was the maximum representation of a State with nationalized banking, these modernization measures were translated into the sale of CODESA shares. In addition, some measures included the attraction of financial centers, since they were considered an instrument of expansion that supported banking denationalization (Gorostiaga, 1978).

With respect to TVET, the biggest problem that arose for this new economic project and the new entrepreneurs was that the structures of TVET were built from the perspec-

tive of the previous development model. For this reason, the discourse of modernization of TVET structures in Costa Rica emerged strongly.

4.2 Structural adjustment programs and state reforms

As a solution to the great financial crisis and the deterioration of Costa Rican social conditions in the late 1970s and 1970s, the International Monetary Fund and the World Bank, together with the "transnationalists" proposed modernizing economic structures through structural adjustment programs. According to Raventós (1995), the second government of the neoliberal era (1982 to 1986) introduced austerity measures demanded by the International Monetary Fund as a condition for continuing to finance the State. This government signed the contract with the IMF and witnessed the implementation of the first Structural Adjustment Program (SAP I in 1985) (Raventós, 1995, p. 80), which in turn led to cuts in the public budget. It was then that the banking system was truly denationalized and the first steps of private investment began to take place. The objective of this SAP was financial equilibrium and expenditure control, for example, by freezing public sector salaries.

Later, in the third government of this period (Arias Sánchez 1986 to 1990), the second SAP was implemented (Raventós, 1996, p. 105) which increased privatization and state control. This second SAP pursued the same objectives as the previous SAP and basically involved a reform of financial policy, the agricultural sector, foreign trade, and the public sector.

It was followed in 1995 by SAP III, which consisted of state reforms (Raventós, 1995, pp. 145–154). This Structural Adjustment Program sought a deeper reform of the state through the pension system, privatization policy, financial liberalization and fiscal policy. These reforms would have an almost immediate impact on the entire labor and educational structure of Costa Rica. The following configuration describes the relationship between these processes in the institutional reforms of TVET and how employers participated in these processes.

The dramatic changes in the economic, labor, productive, institutional, private, and public structures are closely related to the subjectivity of the groups that promoted these changes and, of course, respond to certain political actions that have been oriented towards the transformation of the TVET system.

4.3 Between old and new business subjectivity: the social status of TVET since 1980

Within the import substitution model, a cultural perception emerged that relegated technical education to an inferior status. This perception manifested notably with the establishment of the National Apprenticeship Institute (INA), aiming to qualify masses of potential workers lacking formal education. This socio-cultural association persisted, delineating a dichotomy between academic and non-academic education. The social and economic value attributed to Technical and Vocational Education and Training (TVET) did not align, exemplified by non-competitive TVET salaries pre-1980, incentivizing students to pursue higher education for better earnings.

During this era, there prevailed a prevailing sentiment equating attendance at INA with a lack of intelligence. Domestic companies, less concerned with workforce training, relied on the state for a supply of skilled labor. The dynamics of underdeveloped capitalism, coupled with the active role of the state in industrial development, contributed to the limited interest of national companies in TVET.

Costa Rica's integration into world capitalism, coupled with unfavorable terms of trade, fostered a robust national industry under the import substitution model. However, criticism of the model emerged due to its inefficacy. Underdeveloped capitalism, coupled with state-led TVET and its diminished cultural and social value, resulted in a tepid interest among domestic firms in TVET.

The pattern of economic growth showcased an asymmetrical relationship between the central and peripheral regions, concentrating dynamic economic activities in the Greater Metropolitan Area. This led to structural issues in peripheral regions, characterized by low productivity, unstable labor markets, and challenges in accessing quality goods and services.

Ineffectiveness in economic and employment policies to integrate individuals into the labor market, particularly since 2008, contributed to rising unemployment and informality. The business sector gradually shifted its perception of TVET, viewing it as a vehicle to foster entrepreneurship among the youth. This ideological shift aligned with the concept of "tropicalization" (Láscarez Smith & Schmees, 2021) of international economic recommendations, prompting the establishment of departments and programs focused on entrepreneurial skills within the educational system. This shift, however, contradicted the promises of the neoliberal project, as it aimed to address employment challenges.

During the administrations of former presidents Arias Sánchez (1982 to 1986) and Rodríguez Echeverría (1998 to 2002) onwards, economic and political power in Costa Rica acquired new dimensions. In this period, the ideological foundations of transnational corporations in economic orientations were established, influenced by the Alliance for Progress, the Washington School and the role of USAID in economic policy (Morois 2005, p. 106, 110).

The Union of Chambers of Commerce and Industry of Costa Rica (UCCAEP) exemplifies the consolidation of economic and political subjectivity. Historically, UCCAEP presidents came primarily from traditional sectors, but since 2008 there has been a shift and now UCCAEP presidents come from the modern service sector. This change reflects not only the transformation of Costa Rica's productive structure, but also the emergence of business leaders with a non-traditional vision of the economy.

UCCAEP continued to promote a change in the functions of TVET, an ethical vision of education at the service of the market. The organization emphasized the adaptation of technical education to meet the requirements of national production and synchronize labor supply with business demand, reflecting a strategic action for productive transformation. The Ten Principles established by UCCAEP emphasized the importance of TVET in preparing the education system for an open economy exposed to increased competition.

Although business discussions on TVET are often conducted from an economistic approach, the UCCAEP recognized the importance of pedagogy in meeting the objectives of system change. For this reason, businesses began to become actively involved in

curriculum planning processes. The emphasis shifted to fostering collaboration between academia and the business sector to train educators who are entrepreneurial, technologically adept and capable of integrating students into the innovation process according to Industry 4.0.

The subjective criteria that give meaning to the elaboration of national TVET policies respond to ideological criteria and a disconnection from the issue of poverty in the sense that the economy grows, but does not create jobs, since jobs are created in the national economy. This is the "double engine of the economy", described by the UCCAEP representative when he said that Costa Rica has two economies: the export economy and the domestic market.

In addition, part of the ideological elements present in transnational corporations is the anti-union discourse. Labor flexibilization, the elimination of the minimum wage and tax exemption for corporate social security have been part of the productive transformation agenda for a better investment climate. The role of TVET institutions in this context, according to business, is to respond to the needs of the market against the interventionist interests of the unions.

4.4 Political actions of business groups around TVET

The following are some of the political actions that business groups have taken to strengthen the total or partial aspects of the TVET system in Costa Rica.

New Institutional Framework: Human Capital and Foreign Investment Attraction (1980s-1990s)

- The creation of institutions like the Costa Rican Coalition of Development Initiatives (CINDE) in 1982 played a crucial role in shaping TVET.
- CINDE's focus on human talent development through initiatives like the Training Program (PROCAP) aimed at aligning education with the needs of emerging industries.
- The geopolitical context, driven by the Cold War, influenced the creation of institutions like CINDE, reflecting the strategic importance of economic shifts in the region.
- The Ministry of Foreign Trade (COMEX) and the Foreign Trade Promotion Agency (PROCOMER) emerged in 1996, reinforcing the country's commitment to economic liberalization.

INTEL's Arrival and Curricular Transformation (1990s)

- The arrival of INTEL in 1998 marked a turning point, leading to significant curricular and institutional changes in TVET.
- INTEL's demand for well-trained workers prompted an overhaul of TVET programs to meet the needs of emerging high-tech industries.
- The cooperation between the Costa Rican government and the Taiwanese government played a pivotal role in modernizing curricula.
- The impact of INTEL on enrollment figures in TVET institutions underscored the need for higher standards and new competencies.

Linking TVET and Business Organizations: "*Less Width, More Depth*" (1990s)

- The slogan "Less Width, More Depth" symbolized a shift toward specialized, industry-relevant curricula in response to business demands.
- Direct collaboration between TVET institutions and businesses gained momentum, with a focus on identifying specialized areas and updating existing programs.
- Business associations became pivotal in shaping curricular discussions, marking a new trend in influencing TVET directions.

Dual Apprenticeships: TVET Modernization Flagship (1990s-2019)

- The discussion on dual apprenticeships in Costa Rica dates back to the late 1980s, with significant institutionalization in the early 1990s.
- A seminar in 1991 laid the foundation for a public policy on dual apprenticeships, drawing inspiration from the German model.
- The emphasis on bipartite responsibility and consensus highlighted the importance of collaboration between businesses and educational institutions.
- The 2019 dual apprenticeships law formalized the apprentice's status as a student, emphasizing a new phase in TVET modernization.

5 Conclusions

The research focused on examining the configuration of the political participation of entrepreneurs in the construction of the technical vocational education and training (TVET) system in Costa Rica. The analysis focused on the organized participation of chambers and business associations, considering structures, actions and subjectivities.

From a historical-structural perspective, it is deduced that, starting in the 1980s, Costa Rica experienced a political-economic project driven by a new transnational business group in response to neoliberal capitalism. However, the full implementation of neoliberal policies was met with social resistance, which generated a gradual process influenced by social tensions and resistance.

In the area of business political actions, two levels of participation were identified: state organizations that respond to business interests and business chambers and organizations directly involved in TVET institutions. Political participation has focused on reforms and law proposals, highlighting the dual apprenticeship law in 2019 and the reform of the National Apprenticeship Institute (INA) in 2020 as achievements for entrepreneurs.

It highlights the lack of clarity in the pedagogical objectives of business political participation, evidenced in contradictions such as the adoption of the German dual apprenticeship model without the corresponding cooperation and labor rights needed for apprentices.

The main conclusion is that the political participation of business has been subordinated to the economic project, providing labor to transnational corporations. TVET has evolved into a strategy that allows employers to participate in areas historically dominated by the state and trade unions.

In the context of TVET institutions, a business linkage strategy aimed at improving educational offerings according to business needs can be observed. However, the introduction of "modernization" measures has not been entirely successful, and political participation has been transformed in response to financial crises and changes at the top.

Business political participation is influenced by economic structures, while recognizing the fragmentation of the Costa Rican business sector, where only large transnational corporations have effectively influenced TVET policies.

It highlights the creation of a transnational subjectivity in TVET after 1980, based on flexibilization and liberalization, designed to benefit specific sectors such as free trade zones, call centers and services. The business vision idealizes Costa Rica as a large free trade zone, subordinating TVET to the needs of foreign investment.

Ultimately, despite the theoretical capacity of TVET to integrate youth into quality markets, the lack of a solid structure based on the transnational subjectivities of entrepreneurs has limited its effectiveness. Further analysis of youth unemployment and the contribution of the general education system to youth labor integration is suggested.

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About the Roles of TVET in the Brazilian System of Innovation

A Critical Discourse Analysis on TVET Modernization in Brazil

Jan Peter Ganter de Otero

Abstract *This paper employs Critical Discourse Analysis (CDA) to investigate the discourses on modernization of Technical and Vocational Education and Training (TVET) in Brazil and its integration into the national innovation system. Two key aspects are explored: (1) how the roles of TVET organizations are represented in the innovation and TVET discourses in Brazil, and (2) how the roles of TVET graduates in innovation processes are represented in the innovation and TVET discourses in Brazil. The research framework draws from Cultural Political Economy (CPE) and the Critical Discourse Analysis. The analysis, based on the CDA approach of Fairclough & Fairclough (2011, 2012) is presented around three main layers: Discursive Practices, Discourses as Texts, and Discourse as Social Practices. Data collection methods encompass document analysis and interviews with experts in Brazil. The study finds that SENAI and the Federal Network advocate a radical approach, aiming to boost TVET's role in Brazil's innovation model, while SENAC takes a conservative stance, limiting the involvement of TVET institutions and graduates in innovation.*

Title *About the roles of TVET in the Brazilian System of Innovation. A Critical Discourse Analysis on TVET Modernization in Brazil*

Keywords *Innovation, systems of innovation, TVET, vocational education, TVET modernization*

1 Introduction

In the 21st century, Technical and Vocational Education and Training (TVET) systems worldwide are undergoing significant transformations. In an era characterized by economic discourses that underscore the pivotal role of innovation-led productivity

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as the main driver for sustainable growth and development. The notion of innovation as the driver of economic progress, and by extension, societal well-being, has gained widespread acceptance. This pervasive belief in an innovation imperative (OECD, 2015) provides the foundation upon which public and private actors focus their attention, devising diverse strategies and policies aimed at enhancing their innovative capabilities.

Globally, a consensus seems to prevail that a region's or country's innovative capacity is contingent upon the interactions among diverse actors within a well-coordinated system. This principle underlies the concept of systems of innovation, supported by organizations such as the OECD and embraced as a pivotal policy framework in recent decades worldwide. A system of innovation can be construed as "a system of interconnected institutions to create, store, and transfer the knowledge, skills, and artefacts which define new technologies" (Metcalfe, 1995, p. 462) or other types of innovations. The development of systems of innovation, wherein knowledge and skills circulate among different stakeholders, has assumed important significance on the economic policy landscape. It functions as a centripetal force influencing societal perceptions and shaping education policies.

As the 'innovation imperative' highlights the importance of education and training as integral components of the innovation processes, global, national, and local discourses on TVET recurrently invoke the term 'TVET modernization' to address the process of adapting, transforming, or reforming existing TVET systems to align them with a desired future state, wherein TVET systems are more seamlessly integrated into systems of innovation and more attuned to economic needs. However, the integration of 'modern' TVET in innovation policies can also represent until certain level a source of transformation of local and national vocational education cultures. This occurs not only because innovation policies seek to integrate TVET, but also because the different TVET systems, networks, and schools are incorporating the discourse on innovation to increase their attractivity in a context of growing rates of higher education attainment. In this sense, this "modernization" may represent rather an identity crisis in TVET systems that creates space for the development of new conceptions and practices in vocational education.

Against this background, this paper presents the results of a critical discourse analysis of TVET modernization in the context of Brazil. By doing so, the paper seeks to discuss how the discourses on TVET modernization describe the multifaceted dynamics at play in the integration of TVET within the Brazilian systems of innovation. This includes an analysis of two main aspects: (1) the analysis of the representations on the roles of TVET organizations in the Brazilian system of innovation, and (2) the analysis of the representations of the roles of TVET graduates in innovation processes in Brazil. To do so, this paper departs from the assumption that when TVET policies delineate an envisioned future state of TVET systems (TVET modernization), they also reference the array of services that TVET systems must offer within innovation systems. In this paper, these services, as outlined in policy discourses, are construed as the roles of TVET systems within systems of innovation. Furthermore, policy discourses on TVET modernization underscore the significance of TVET graduates in labour markets and the specific tasks they are expected to undertake within diverse innovation processes.

This research identified that the discourses on TVET modernization among the SENAI and the Federal Network in Brazil reflect a radical approach that seeks to en-

hance the participation of TVET and TVET graduates in the linear model of innovation. On the other hand, SENAC – one of the major TVET providers in the country – reflect a conservative view that restrict the role of TVET institutions and TVET graduates in innovation processes.

In what follows, the paper is structured into different sections, starting with a brief review of contributions from previous literature, followed by a presentation of the theoretical and methodological framework, and an outline of the data collection procedures. The core of the paper presents a critical discourse analysis on Brazilian discourse emerging from recent innovation and TVET policies. The first level (Discursive Practices) focus on describing the Brazilian Hierarchical political economy, the innovation system and TVET landscape in Brazil. Following this, the second level of analysis (Text Analysis) is divided into three parts, examining challenges and goals in innovation discourses, TVET modernization, and TVET's roles in Brazil's innovation system. The last level of analysis (Discourses as Social Practices) discusses different perspectives on TVET modernization and its possible effects in terms of TVET and TVET graduates' participation in innovation processes.

2 Previous literature on the roles of TVET and TVET graduates in systems of innovation

The discussions on innovation processes within the academic world has evolved significantly over time, transitioning from a linear model approach to a more intricate and systemic approach (Godin 2006a). This transformation has been largely guided by the Systems of Innovation framework, which emerged at the close of the 20th century as a pivotal turning point in the field of innovation studies (Edquist 2010).

The initial paradigm, known as the Linear Model of innovation, delineated innovation as a sequential process encompassing five core stages: pure science, invention, innovation, finance, and acceptance (or diffusion) (Godin, 2008). This model emphasized the continuum between fundamental scientific research and engineering applications. It underscored the critical role of transitioning from fundamental research to applied research, mirroring the increased private sector investments in Research & Development (R&D) (Godin, 2006, 2008, 2012). This linear model primarily operated under the assumption that technical change flows from basic scientific research to applied research, eventually reaching production and diffusion stages (Godin, 2006b; Toner, 2010). This perspective advanced a staged progression, including knowledge generation, knowledge codification, and knowledge utilization (Kogut & Zander, 1992; Garud, Tuertscher, & Van de Ven AH 2013; Rupietta, Meuer, & Backes-Gellner 2021).

In contrast, the Systems of Innovation framework recognizes that innovation can manifest through different processes. Within this framework, at least two distinct modes of innovation can be delineated: the Science, Technology, and Innovation (STI) mode and the Doing, Using, Interacting (DUI) mode (Jensen, Johnson, Lorenz, & Lundvall, 2007). The STI mode focuses on formal processes of research and development, and it is characterized by a sequence of stages that reflect the linear model, encompassing knowledge generation, codification, and utilization. Conversely, the DUI mode thrives on in-

formal processes of learning and experiential knowledge. This mode often finds its locus at the company level, particularly among small and medium-sized enterprises (SMEs), operating within less R&D-focused knowledge environments (Thomä, 2017). It thrives on bottom-up learning and multi-directional knowledge flows, prioritizing practical know-how and adaptability over formal research.

However, while much scholarly attention has been directed towards the contributions of universities as knowledge institutions, the role of TVET has remained comparatively understudied. One of the few works available on this thematic (Toner, 2010) argues that TVET institutions are multifaceted entities within innovation processes, serving three distinct roles. First, these institutions are pivotal in disseminating practical skills and knowledge of production processes, thereby contributing to technology diffusion. Second, they function as intermediaries, facilitating the exchange of technology and information among producers, service providers, and organizations. Third, especially in regions lacking strong university or R&D presences, TVET colleges emerge as primary sources of technical expertise, offering crucial support for SMEs and industries seeking to adapt and incorporate existing technologies and innovations (Toner, 2010).

Moreover, the author argues that TVET graduates play an integral role in innovation processes through several avenues. Firstly, they contribute to innovation through experiential learning and hands-on experience, embodying the ethos of 'learning by doing' (Landes, 1972). Equipped with the skills necessary to design, install, adapt, operate, and maintain technology and equipment, TVET graduates are instrumental in practical problem-solving and innovation (Toner, 2010). Secondly, TVET graduates actively engage in public and private R&D activities, offering a valuable pool of skills and expertise tailored to problem-solving and the implementation of innovations (Toner, 2011). Their knowledge and aptitude for troubleshooting and optimization make them essential contributors to the innovation landscape. And thirdly, TVET graduates serve as adept users of capital, goods, and services, serving as valuable conduits for companies and public sectors to gather user feedback and insights. Their involvement in the user experience realm enables organizations to listen to users' needs and suggestions, facilitating continuous adaptation and innovation (Toner, 2010).

3 Theoretical and Methodological Framework: Cultural Political Economy (CPE) and Critical Discourse Analysis (CDA)

This paper seeks to answer the following questions:

1. How do discourses on innovation and TVET represent the roles of modern TVET systems in systems of innovation in Brazil?
2. How do discourses on innovation and TVET represent the roles of TVET graduates in different innovation process in Brazil?

To answer to these questions, the research adopted a comprehensive theoretical and methodological framework rooted in Cultural Political Economy (CPE) and Critical Discourse Analysis (CDA). CPE serves as our overarching theoretical lens, offering a

macro-level perspective. It investigates the intricate relationships between policy discourses, economic and political ideologies, and their translation into concrete strategies, projects, and institutional structures (Jessop, 2008, 2010). This framework emphasizes the pivotal role of semiosis and discourses in shaping economic and political realities (Jessop, 2010).

At its core, CPE contends that socio-political transformations are the outcome of a nuanced interplay between material and semiotic elements, orchestrated through mechanisms known as variation, selection, and retention (Sum & Jessop, 2013). Variation encompasses the emergence of new or different policy discourses and practices in response to a myriad of factors. Selection involves the identification of the most suitable interpretations of existing problems and the corresponding policy solutions. These selections vary across different contexts due to distinctive political economy structures and ideological coalitions. Lastly, retention refers to the institutionalization of newly adopted discourses and policies.

As a methodological approach, we employ Critical Discourse Analysis (CDA), as developed by Norman and Isabela Fairclough, to investigate the role of language within social and cultural processes (Fairclough, 2003). The term language here is used to refer to discourses. CDA views discourses as both a reflection of social reality and a powerful instrument that actively shapes and influences it. CDA operates across three analytical layers:

- Discursive Practices: It investigates the contextual factors that shape discursive practices, including institutional and organizational dynamics. This analysis aims to map the key actors involved in producing and disseminating discourses and to understand the conditions that facilitate discourse production through a discussion concerning the Brazilian hierarchical political economy (Schneider, 2008a).
- Discourses as Texts: This layer involves a detailed language analysis of texts using an argumentative text analysis. This approach involves analysing premises related to circumstances, goals, values, actions, and means (Fairclough & Fairclough, 2011, 2012).
- Discourse as Social Practices: This final layer interprets discourses within the broader social context, assessing their impact on society and their role in driving social transformation. (Fairclough, 2003).

3.1 Data Collection Procedures

The data collection procedures for this research were conducted to ensure a comprehensive exploration of the TVET landscape in Brazil and its integration into the country's innovation system. Data was gathered through two primary methods: document analysis and semi-structured interviews, involving key stakeholders at various levels. Data collection procedures encompassed two distinct geographic levels:

- National Levels: Data collection at the national level centred on examining national policies and institutional frameworks related to innovation and TVET in Brazil. It provided insights into the overarching strategies and initiatives at the country level.
- Local Levels: The local level data collection involved observing the perceptions and interactions of different actors within a specific local system of innovation. Emphasis was placed on the Energy sector, with a focus on the 'APL Oil and Gas Macaé' in Brazil. In this research, the use of the local level has been important to identify variations in the discourses on innovation and TVET in Brazil, however, the main focus of the analysis remains in the national level.

Local Productive Arrangement – APL Oil and Gas Macaé

The 'APL Oil and Gas Macaé' was a significant focal point of the research. This arrangement refers to a local innovative cluster, as described by Cassiolato and Lastres (2003). It represents territorial agglomerations of economic, political, and social agents focused on specific economic activities. In the Campos basin of Rio de Janeiro, Petrobras established one of the world's largest marine oil complexes. The governance of 'APL Oil and Gas Macaé' is managed through the 'Petro Network,' a non-profit organization dedicated to promoting, articulating, and fostering business generation within the oil, gas, and energy production chain of the Campos Basin. Notably, the Petro Network includes over 70 private companies, 24 public or non-profit institutions, and major TVET networks in Brazil, such as SENAI, SENAC, and the Federal Network.

Documents analysed

A wide array of documents, encompassing both national and local perspectives, was collected. These documents covered the period from 2011 to 2019 and provided insights into various facets of innovation and TVET policies in Brazil. The selection of the documents, considering time and labour constrains, was not designed in a way to cover a large number of publications produced by each of the stakeholders. For this reason, only one annual report has been selected within the covered period from 2011 and 2019.

The significance of the analysed documents lies in their ability to offer a multifaceted view of the integration of TVET into Brazil's innovation system. These documents represent a diverse array of perspectives, ranging from governmental strategies to industry-specific challenges, providing a comprehensive spectrum for critical discourse analysis. More importantly, the documents present the circumstances, goals, values, actions, and means (Fairclough & Fairclough, 2011, 2012) highlighted by the discourses on innovation and TVET policies. The list of documents include:

- Business Mobilization for Innovation (MEI) New Agenda to Expand Business Innovation (CNI, 2014a): This publication detailed the updated work agenda of MEI, reflecting the collective input of prominent business leaders and government officials involved in the initiative.
- National Science, Technology and Innovation Strategy 2016 (MCTIC, 2016): This strategic document outlined the medium-term Science, Technology, and Innovation (ST&I) strategy during President Michel Temer's tenure (2016–2018).

- Challenges for Industry 4.0 in Brazil (CNI, 2016): Organized by the Permanent Thematic Council for Industrial Policy and Technological Development within the National Industry Confederation (CNI), this publication delved into the concepts of 'digitalization' and 'Industry 4.0.'
- Industry 4.0 (ABDI, n.d.): This online portal (no longer available) presented the MCTIC's comprehensive strategy for Industry 4.0 in Brazil, crafted by the Working Group for Industry 4.0 (GTI 4.0) in 2017.
- The Pernambuco Declaration (SBPC, 2018): This concise publication produce by Brazilian Society for the Progress of Science (SBPC) summarized twelve key points regarding Brazilian science, technology, and innovation policy.
- Technology Roadmaps Planning 2015–2020 (FIRJAN, 2015): The document produced by the Federation of Industries of the State of Rio de Janeiro (FIRJAN) was developed collaboratively with around 120 specialists in 2014, focusing on research and development collaboration, identifying strategic areas, and addressing industrial demands in the state of Rio de Janeiro.
- Annual Report on the Analysis of the Management Indicators of the Federal Institutions of Professional, Scientific and Technological Education. Year 2018 (MEC 2019): This report, organized by the Secretariat of Professional and Technological Education (Setec) of the Ministry of Education (MEC), presented an overview of the management indicators of the TVET Federal Network in 2018.
- Portraits of the Brazilian Society: Professional Education (CNI, 2014b): This publication presents the results of a national research initiative conducted by the National Confederation of Industry (CNI) regarding the perception of TVET in Brazilian society.
- Management Report NEPI (MEC, 2018): This report summarized the activities of the 'Structuring Center of Innovation Policy' (NEPI/SETEC) within the federal Ministry of Education for the year 2016. Focusing on the 'Innovation Policy in the Federal Institutes,' the publication outlined 22 activities undertaken by NEPI.
- Annual Report of Activities SESI-SENAI-IEL 2018 (CNI, 2019): This report provided a national summary of the activities carried out by the entire 'Industry System,' including SESI, SENAI, and IEL, in the year 2018.
- SENAC General Report 2018 (SENAC, 2019): This publication presented a national summary of the activities conducted by SENAC in the year 2018.
- SENAC Pedagogical Model Guidelines (SENAC, 2018): This document provided an overview of the principles governing SENAC's new national pedagogical model, which had been developed through ongoing dialogue with SENAC Regional Departments since 2013.
- 2018 Management Report SENAC-RJ (SENAC RJ, 2019): This report summarized the activities of SENAC's Regional Department in Rio de Janeiro during the year 2018.
- 2019 Management Report SENAI-RJ (SENAI RJ, 2019): This report presented an overview of SENAI-RJ's institutional objectives, organizational planning, and activities in 2019.

Semi-structured expert interviews

Moreover, semi-structured interviews were conducted with key stakeholders to gain a deeper understanding of TVET policies and innovation strategies. The selection of the interviewees was defined by a multilevel strategy that include national and local stakeholders from innovation and TVET landscapes. The interviews were held at various geographic levels, including both national and local perspectives:

- Ministry of Science, Technology, and Innovation (MCTIC): An interview was conducted with a representative from the Department of Technological Development and Innovation. Duration: 46 minutes. Code: MCTIC.
- Ministry of Education I (Brasilia, 19.10.2017): Interview with the former secretary of TVET. Duration: 90 minutes. Code: FormerMEC.national.
- Ministry of Education II (Brasilia, 17.10.2017): Interview with two representatives of the 'Structuring Center of Innovation Policy' (NEPI). Duration: 90 minutes. Code: MEC.national.
- National Service of Commercial Apprenticeship (Rio de Janeiro, 24.10.2017): Interview with the representative of the TVET section at the SENAC national department. Duration: 80 minutes. Code: SENAC.National.
- National Service of Industrial Apprenticeship (Rio de Janeiro, 06.11.2017): Interview with two representatives of SENAI's innovation department in the state of Rio de Janeiro. Duration: 75 minutes. Code: SENAI.RJ
- Federal Institute for Vocational Education Fluminense (Campos dos Goytacazes, 02.11.2017): Interview with the representative of the IFF Innovation department. Duration: 80 minutes. Code: IFF.local.
- Petro-BC Network: Interview with the representative of the network management. Duration: 99 minutes. Code: RedePetro

4 Discursive practices: Brazil's Hierarchical Political Economy as a Landscape of Challenges in Innovation, Education, and Skills

The Global Competitiveness Index of 2018 positioned Brazil as the 72nd most competitive economy globally, yet it stood out as the most innovative nation in South America, ranking 40th overall. However, the nation's performance in innovation is constrained by institutional factors, particularly the poor integration of policies and the lack of coordination between the public and private sectors (World Economic Forum, 2019).

This paper argues that the integration of TVET within systems of innovation at both the national and local levels in Brazil is embedded within a hierarchical political economy (Murillo, 2001). This framework is characterized by distinctive traits, including a strong sense of hierarchy, fragmented collective agents, and inefficient regulation and collective bargaining (Murillo, 2001). Additionally, Bresser-Pereira (2012) characterizes this context as a liberal-dependent model, highlighting the dependency of its elites to varying degrees and the absence of a cohesive national development strategy.

Integral to Brazil's hierarchical market economy is a concentrated ownership structure, with a significant portion of companies, including multinational corporations (MNCs), controlled by a handful of powerful families, forming large economic groups (Schneider, 2008a). This concentration extends to business associations, which often lack the capacity for self-governance at the industry level due to their limited influence over decisions made by economic groups or MNCs within their sectors (Schneider, 2004). This reality is exacerbated by the weakness of unions within companies and industries, further diminishing the bargaining power of associational intermediaries.

Furthermore, Brazil's competitive landscape is shaped by the absence of robust competition policies and effective legislation concerning public contracts. Economic groups and MNCs enjoy privileged access to information and capital, fostering a symbiotic relationship with the political system (Schneider, 2008b).

Within this hierarchical market economy, Brazil's educational system exhibits a strong social disparities. The elite classes access superior human capital resources, while the working classes are relegated to a second-tier education (Frangi, 2012). A substantial portion of the workforce in Brazil possesses limited educational attainment, primarily engaging in the informal sector, characterized by low wages, job insecurity, and a dearth of training opportunities. In contrast, a select few enjoy stable careers in the public sector, MNCs, or large domestic enterprises, contingent upon higher education qualifications (Schneider & Soskice, 2009). Employees at large firms typically experience long tenures, union representation, and significant legal protection. Although some prominent companies, particularly MNCs in sectors such as automobile manufacturing, invest in specific in-company training for a core workforce, this training is not widespread due, in part, to the preference of large firms for poaching skilled workers by offering higher wages.

Significant economic groups and MNCs in Brazil have shown limited inclination to invest in innovation or research and development activities. Technology imports from advanced economies remain the norm, and there is minimal focus on innovation-driven export markets, as success within oligopolistic markets often relies more on market power than product development (Schneider & Soskice, 2009). MNCs tend to conduct research outside Latin America, primarily in their research structures in developed countries.

Recent studies (Cassiolato, Szapiro, & Lastres, 2015) underscore the concentration of R&D expenditures in Brazil within a few sectors, with substantial emphasis on the automobile industry. Large locally owned firms also exhibit a high level of concentration, notably in oil refining and the 'other transport equipment' sector, as exemplified by Embraer, the renowned Brazilian aircraft manufacturer (Cassiolato, Lastres & Maciel, 2003).

In Brazil, while the majority of the economic sectors present lower levels of innovation and R&D, innovation assumes paramount importance in the competitiveness strategies of sectors linked to the export of primary goods. Despite a reliance on imported technologies, these sectors often engage in local technology development, often in collaboration with institutions like the Brazilian Agricultural Research Company (Embrapa) and the National Institute for Space Research (INPE) (Cassiolato et al., 2015).

4.1 Brazilian Innovation System and Its Main Actors

The Brazilian innovation landscape is complex and dynamic, involving a multitude of actors from various sectors. These actors play pivotal roles in shaping the country's innovation policies and practices. Below is a detailed description of the key actors within the Brazilian Innovation System (MCTIC, 2016):

- Ministry of Science, Technology, and Innovation (MCTIC): While it was extinguished in 2019 (recreated later on), the MCTIC held a critical role in formulating and executing national policies for scientific and technological research and innovation. It coordinated, supervised, and controlled activities in these domains, including serving as the coordinator of the Brazilian Innovation System.
- Ministry of Education (MEC): The MEC is a crucial federal ministry responsible for providing guidelines and funding for various educational policies, spanning primary, secondary, tertiary, adult education, technical and vocational education and training (TVET), special education, and distance education. It also evaluates research programs in the field of innovation.
- National Council of Science and Technology: Established in 1996, this advisory body reports to the President of the Republic. Its primary role is to formulate and implement national policies for science, technology, and innovation. The Council proposes science and technology policies, formulates plans, establishes national priorities, and evaluates policy execution, offering guidance for innovation programs and regulatory acts.
- Regulatory Agencies: These relatively recent entrants into the Brazilian Innovation System are legally obligated to invest in science, technology, and innovation activities within their regulated sectors. Agencies like the National Agency of Petroleum, Natural Gas, and Biofuels (ANP) and the National Electric Energy Agency (Aneel) manage sectoral funds with Research and Development (R&D) clauses to promote private investment in innovation.
- State Secretariats: Each of Brazil's federal states has its innovation secretariat, serving as coordinators and financiers of regional innovation systems. These secretariats, alongside governance of 'Research Support Foundations,' form part of the articulation efforts at both the state and national levels. Two key representative bodies include the 'National Council of State Secretaries for Science, Technology, and Innovation Affairs' (Consecti) and the 'National Council of State Research Support Foundations' (Confap).
- Employers Confederations: National Confederation of Commerce (CNC): CNC, along with other national confederations like the National Confederation of Agriculture (CAN) and the National Confederation of Industry (CNI), represents various organized private sectors in Brazil. CNI, in particular, promotes public policies supporting innovation in industrial production.
    - Business Mobilization for Innovation (MEI): MEI, coordinated by CNI, is an initiative of more than 200 business leaders, government authorities, and institutional representatives. It seeks to enhance collaboration between the public and

private sectors in Brazil's innovation system to boost the effectiveness of public innovation policies.

- Trade Unions: Trade unions in Brazil are organized around central bodies that coordinate workers' representation and engage in high-level negotiations. For instance, the Unified Workers' Central (CUT), founded in 1983, is the largest union center in Brazil and Latin America, representing millions of workers. The Sindical Force, founded in 1991, also has a significant presence.
- Science Associations: It includes for example the Brazilian Academy of Sciences (ABC), the Brazilian Society for the Advancement of Science (SBPC).
- Funding Agencies: Includes the National Council for Scientific and Technological Development (CNPq), who promotes scientific and technological research and supports the training of Brazilian researchers, and the Coordination for the Improvement of Higher Education Personnel (CAPES). More recently, the creation of the Brazilian Association for Industrial Research and Innovation (EMBRAPII) in 2013 seeks to foster innovation in Brazilian industry by promoting synergies between research institutions and industrial companies. Finally, the Research Support Foundations (FAPs) are state-level agencies, including the Foundation Carlos Chagas Filho Research (FAPERJ), that offer funding for research projects, scholarships, scientific infrastructure, and educational curriculum updates.
- Science, Technology, and Innovation Operators: These entities are responsible for developing and implementing science, technology, and innovation activities. It includes the Federal Higher Education Network and State Universities; The National Institutes of Science and Technology (INCT) established in 2008; The Federal Institutes of Education, Science, and Technology (Federal Institutes), as well as the SENAI Innovation Institutes

4.2 The Brazilian TVET Landscape

In the area of Technical and Vocational Education and Training , Brazil showcases a landscape marked by diverse actors operating with limited interinstitutional coordination and complementarity. This section delineates the key TVET actors (Souza et al. 2015) within Brazil's multifaceted TVET systems, primarily comprising the TVET National Federal Network (public), state funded TVET schools, and the 'S system,' featuring institutions like SENAI and SENAC, which TVET providers under the organization of the Chambers of Commerce.

The organization of TVET in Brazil is characterized by historical dualities and distinct perspectives on the objectives and structure of TVET systems. These dualities encompass divisions between public and private TVET systems, as well as the fundamental duality within the education system itself, where TVET is juxtaposed with higher education.

Brazilian TVET legislation provides substantial autonomy to TVET institutions to define the scope of their activities and the development and approval of TVET programs. This autonomy, however, comes with limited guidance on structuring TVET provision. Public and private TVET institutions in Brazil tend to develop their own concepts and frameworks, enjoying a high degree of institutional autonomy.

Notably, private TVET institutions like SENAI and SENAC employ competency-based curricula, which organize TVET programs around the development of professional competencies. These institutions implement national pedagogical models that emphasize learning through practical experience and active student participation. Competence is defined as observable professional action (SENAC, 2018) in these models, emphasizing its articulation with knowledge, skills, attitudes, and values. TVET curricula are modular, with each curricular unit corresponding to a specific competency.

In contrast, institutions within the Federal Network have historically resisted the use of competency-based curricula in TVET. The Federal Network operates with a high degree of autonomy across administrative, patrimonial, financial, didactic-pedagogical, and disciplinary dimensions, as stipulated by Federal Law number 12.677 of 2012. the Federal Network places a strong emphasis on the inseparability between teaching, research, and extension, reflecting its commitment to integrating these components.

The Brazilian public TVET landscape encompasses various public actors at both national and local levels. These entities play pivotal roles in shaping the country's TVET policies and systems (Souza et al. 2015):

- Ministry of Education (MEC): At the apex of Brazil's educational policy coordination, the MEC is responsible for formulating the nation's educational policy and implementing the 'National Education Plan (NPE) 2014–2024.' The Secretariat of Professional and Technological Education of the Ministry of Education (SETEC/MEC) operates under the MEC's umbrella, steering TVET policies, programs, and actions. SETEC is also entrusted with developing and updating national guidelines for TVET courses, certifications, and recognition of professional competences. It plays a crucial role in devising teaching methodologies, evaluation frameworks, and management models for public TVET institutions. Additionally, within MEC's purview, the National Institute of Educational Studies and Research (INEP) conducts vital assessments and supports policy development, while the Coordination for Improvement of Higher Education Personnel (CAPES) evaluates graduate programs offered by TVET schools.
- The Federal Network of TVET Institutes: Established in 2008, the Federal Network constitutes a significant milestone in Brazil's TVET expansion. Comprising three main types of TVET institutions—Federal Institutes, Technical Schools affiliated with Federal Universities, and Technological Centers (along with a few universities)—this network boasts over 40 TVET institutions and over 600 TVET centres scattered across the country. These institutions wield autonomy in course creation and diploma registration within their territorial domains. The National Council of Institutions of the Federal Network of Professional, Scientific and Technological Education (Conif) serves as the principal platform for policy discussions, propositions, and the promotion of training, research, and innovation. Conif also spearheads various initiatives, including research projects and knowledge exchange forums.
- State Secretariats and TVET Schools: Brazil's State Education Secretariats hold the authority to authorize, certify, monitor, and evaluate local educational institutions. Notably, in Rio de Janeiro, the State Education Secretariat (SEEDUC) operates a network of local TVET schools and offers TVET courses, often integrated with secondary

education. The National Council of Education Secretaries (CONSED) plays a pivotal role, uniting state representatives to foster the integration of state education networks and amplify state participation in national policy decision-making. Another significant contributor to the state TVET network is the Foundation for the Support of Technical Schools (FAETEC), an entity linked to the State Secretariat for Science and Technology.

Brazil's private TVET systems encompass a range of public and private actors at national and local levels. These actors include the Ministry of Labour and Employment (now the Ministry of Economy), various institutions within the 'S system,' and other private TVET schools:

- Ministry of Labour and Employment: Responsible for enforcing apprenticeship legislation and overseeing the apprenticeship system, the Ministry of Labour and Employment ensures that companies maintain a mandatory quota of 5 % of young employees through specialized work contracts. The ministry's functions include organizing the Brazilian Classification of Occupations (CBO) and maintaining the national registration of qualified apprenticeship institutions. It establishes rules for assessing the competence of entities, validates apprenticeship programs and courses, and compiles data on new apprenticeship contracts.
- National Apprenticeship Services (S System): The S System, comprised of nonprofit private entities functioning as autonomous social services, is a crucial player in Brazil's TVET policy landscape. These entities provide over 40 % of the country's TVET offerings. Prominent members of the S System include SENAI (focused on the industrial sector), SENAC (concentrating on Commerce and Tourism sectors), SENAR (operating in rural areas), and SENAT (providing safety programs and vocational training in the transportation sector). A substantial portion of their revenue stems from mandatory taxes levied on firms in different sectors, with a portion earmarked for the provision of free professional and technical education programs. These institutions adhere to a corporate governance model characterized by a confederation structure, featuring national and regional departments, councils, and fiscal councils. Notably, a tripartite composition—Government, Workers, and Entrepreneurs—comprises the National Councils of these entities, as agreed upon with the Ministry of Education in 2009.
- Other Private TVET Institutions: Beyond the National Apprenticeship Services, private TVET institutions, including private higher education institutions offering high school technical courses and private secondary schools, are emerging as potential TVET providers, contributing to the diversification of Brazil's TVET landscape. The presence of other private TVET institutions in the country is limited and, for that reason, this category of stakeholders has not been included in the data collection procedures.

5 Text Analysis

This section aims to present the results of the text analysis of the documents and interviews concerning TVET policies at national and local level in Brazil. The texts from interviews and documents are analysed to identify (1) current challenges and goals of innovation discourses in Brazil; (2) the challenges and goals of TVET discourses in Brazil; and (3) the role of modern TVET systems in innovation systems and the role of TVET graduates in innovation processes.

5.1 Challenges and goals of Innovation Discourses in Brazil

The analysis of the texts from documents and interviews spanning from 2011 to 2019 unveils significant findings and key challenges within Brazil's innovation policy landscape. In general, the documents and interviews concerning innovation policies at national and local level in Brazil present an idea of innovation focused on activities of applied research as the source of innovation, in contrast to basic research. This approach has been reinforced with the establishment of Embrappi in 2013, a model inspired by the German Fraunhofer Institute model. However, they also recognize that, historically, innovation policies in Brazil have faced a persistent challenge – the lack of prioritization of science and research within the country's social and economic development agenda. This is a recurring theme emphasized across various documents and interviews. The document "MEI's New Agenda to Expand Business Innovation: The State of Innovation in Brazil," published by the MEI in 2014, underscored this issue, for example, by asserting that "low levels of public and private investments in research and development are one of the main barriers in the development of innovation in Brazil" (CNI, 2014a, p. 4).

The documents and interviews highlight challenges concerning substantial reduction in public investments in innovation policies from the second half of 2010's in Brazil. The representative of SENAI at the national level highlighted that during the government of former Vice President Michel Temer (2016–2018), there was "a lack of political influence from the MEI and the CNI in promoting the participation of the federal government in innovation policies" (SENAI.National).

An issue that the interviews bring to the forefront is the limited interaction between Brazil's higher education system and the business sector. A representative of SENAI in Rio de Janeiro pointed out, "There are islands of excellence here that we find throughout the country […] these are universities that have a research history that is relevant […] but that for some reasons, they are a little distant from companies, from industries" (SENAI.RJ).

Another pressing concern demonstrated in the interviews and documents is the process of deindustrialization witnessed in Brazil's national economy in the last decades. The industrial sector, which once contributed over 20 % to the national GDP in the early 1980s, saw its share decline to a mere 11 % by 2016 (ABDI and MICS, n.d). Innovation discourses highlight that this industrial decline poses a considerable challenge to innovation policies aiming to bolster the international competitiveness of Brazil's industries, as competitiveness is seen as direct consequence of the level of innovation in this economic sector. Brazil's industrial sector has experienced a diminishing role in the national econ-

omy, characterized as an early deindustrialization phenomenon (Cassiolato & Lastres, 2017).

The interview with the representative of the Petro-BC Network (Rede Petro) depicted a scenario where sectors like Oil and Gas and "the area of production (Campos basin) is almost completely disconnected with the processes of innovation development in the sector of Oil and Gas." In the view of the representative, institutional challenges also hinder progress, particularly in the case of the Rede Petro, which lacks proper legal recognition. The representative explained, "the lack of a proper legal structure creates a scenario where the Rede Petro has low access to financing and must work on an extremely small budget of approximately 6,000 reais per month (less than 1,000 dollars) financed by its members" (Rede Petro).

Against this background, the analysis unveiled two main policy goals in innovation discourses in Brazil: first, the objective of reducing the technological gap between the country and developed nations, and second, the objective of leveraging innovations and technologies to bolster economic competitiveness. The interviewee from SENAI at the national level stressed the importance of closing the technological gap, noting, "National companies, as a rule, are technologically dependent [...] it brings this agenda into the institution, to try to close these technological gaps."

5.2 Challenges and Goals of discourses on TVET modernization in Brazil

The discourses that emerge from the interviews and document surrounding TVET modernization in Brazil reflects different challenges and objectives, including issues of social inequality, constraints on public investments, and the need to adapt to global discourses on innovation.

The documents and interviews underscore a stark scenario of social inequality related to access to education, TVET, and employment within Brazil. According to the SENAC 2018 National Report, data from the 2017 IBGE's National Continuous Household Survey (Pnad) revealed that two out of every ten young Brazilians neither study nor work, indicating a concerning trend (SENAC, 2019). Furthermore, a study by CNI (2014b) highlighted a significant disparity: 42 % of respondents with higher degrees had taken or were taking professional education courses, whereas this percentage plummeted to a mere 5 % for those with up to a 4th-grade elementary school education.

Moreover, since the onset of Michel Temer's presidency in 2016, Brazil's TVET policies have encountered significant budget cuts, mirroring the challenges faced by innovation policies during the same period. This period witnessed a competitive scramble for public investments in TVET. During an interview in late 2017, a representative of SENAC at the national level described Brazil as a country engulfed in political and social turmoil, with a critical search for resources (SENAC.National). At the local level, within the state of Rio de Janeiro, documents and interviews related to TVET policy painted a similar picture. For example, the 2018 SENAC-RJ Management Report depicted an economic crisis in the state, compelling the institution to take significant cost-cutting measures (SENAC RJ, 2019).

The challenges of social inequality related to access to education, as well as the significant budget cuts in the field of education and TVET convergence towards a general

concern with the need to increase labour productivity and social inclusion. Against this background of main challenges described by the documents and interviews, TVET policies in Brazil revolve around key objectives, with a shared focus on enhancing labour productivity, bolstering economic competitiveness, and promoting social inclusion. These goals are echoed at both national and local levels, as showed by interviews and document at local level. However, a distinctive objective emerged in the discourses from TVET policies of the Federal Network of TVET Institutes and SENAI, which was not as pronounced in the case of SENAC: obtaining additional funding by providing services related to innovation development, such as applied research and consultancy services.

Institutions such as those within the Federal Network and SENAI have a vested interest in promoting the vision of modernity to secure additional funding, particularly in an environment characterized by reduced public investments. A representative from the former SETEC/MEC administration emphasized the need for institutions in the Federal Network to explore alternatives to sustain their model of excellence. This includes establishing specialized units for innovation with the aim of raising funds from the private sector (FormerMEC.National).

5.3 The Different Roles of TVET in Brazil's System of Innovation

In Brazil, TVET organizations are emerging as critical actors in innovation policies, particularly those within the Federal TVET network and the SENAI network (CNI, 2014a; MCTIC 2016). These organisations are now recognized as science and technology institutions with a mission encompassing technological research and development (MCTIC 2016). The representative of the MCTIC accentuated their role, asserting that, "today, the Federal TVET Institutes and the SENAI innovation institutes have higher education courses. We have master's and we have doctorates […] partnership with EMBRAPII with MCTIC, with MEC, can really create this different culture" (MCTIC).

The role of TVET in the systems of innovation in the case of SENAI and the Federal Network in Brazil is presented by the documents and interviews as the result of a broad process of TVET transformation that seeks to combine the provision of skilled workers and activities related to technology transfer. In both cases, the representation of TVET modernity is based on an attempt to enhance the participation of TVET institutions in systems of innovation and TVET graduates in processes of innovation development highly centred on the activities of research and development, with a focus on applied research projects and public partnerships.

Within the Federal Network, the role of TVET in innovation is intertwined with the fundamental concept of 'inseparability between teaching, research, and extension', a paradigm described by the Brazilian Federal Constitution of 1988 as the main principle that should guide the work of universities. The federal law number 9.394 of 1996 (Brasil, 1996, own translation, art. 43) establishes the guidelines and bases of national education and describes the work of teaching as training "graduates in different areas of knowledge, suitable for insertion in professional sectors and for participation in the development of Brazilian society, and to collaborate in their continuous training". Research is defined by the law as "scientific research and investigation, aiming at the development of science and technology and the creation and diffusion of culture. Lastly,

the term "extension" is described as "the dissemination of the achievements and benefits resulting from cultural creation and scientific and technological research generated at the institution" (Brazil, 1996, own translation, art. 43).

The decision of using this concept to orient the organization of the Federal TVET Institutes, reinforces the need for educational institutions to consider an institutional strategy on the relationship with external partners and society. By doing so, it also opened an opportunity for this TVET providers to deliver not only training programmes and activities but also scientific research and investigation with the objective of promoting impact on the communities and environment (extension).

Interviews with representatives of this network underscore the paramount importance of applied research as a means of addressing tangible problems. A senior official from the SETEC/MEC administration emphasized the distinctive mandate of TVET institutions within the Federal Network to actively engage in solving real-world issues through applied research. According to this representative, this commitment is rooted in a long-standing TVET tradition that emphasizes practical solutions and the transformation of academic knowledge into tangible products that resonate with the productive sector. Moreover, the verticalization of TVET supply within the Federal Network is a prominent feature. The introduction of professional master's and doctoral programs within the TVET system (different than traditional masters and doctoral programs provided by Universities)signifies a pivotal shift toward fostering applied research at the graduate level. According to this representative, these programs are designed around real-world projects aimed at finding solutions to critical sector-specific problems, positioning TVET graduates as catalysts for innovation development.

Furthermore, SENAI places an equally strong emphasis on research-oriented activities seeking a symbiotic relationship between these activities and the provision of a skilled workforce. SENAI representatives have articulated a vision that aligns the training of skilled workers with technology transfer and innovation development in the Brazilian industrial sector. This discourse on TVET modernization suggests that the provision of research and technology transfer services can help TVET providers to stay updated on the needs and modern requirements in terms of technology, , equipment, machinery and the new skills in TVET curricula, therefore, facilitating the provision of skilled workers. . This approach is also substantiated by a commitment to the verticalization of TVET supply, mirrored by the establishment of professional master's and doctoral programs. These programs, characterized by project-based learning, are attuned to the resolution of practical problems in various sectors and play a pivotal role in positioning TVET graduates as active contributors to the innovation landscape.

Along with this line, the discourses from Federal Network and SENAI highlight the central role of TVET graduates as innovation developers – and not only implementers (or 'competent users' as described by Toner 2010). For example, as suggested by the representative of the SENAI at local level:

> "The company brings a demand. And this problem is taken to vocational education students, and they seek that solution, that innovation. So, it is a way for us to stimulate in this moment of formation the look for innovation, looking for a solution. I mean, this professional who will leave here trained, he will be a professional within a

> company. He will leave here with that concept that if he is within the company, he will always have to be looking for solutions and innovations for that activity" (SENAI.Local, own translation).

On the other hand, the case of SENAC emerges as a variation in the national discourses with a strict focus on the provision of skilled workers. The institution's primary role within Brazil's system of innovation predominantly centres on supplying a highly skilled workforce in commerce and tourism sectors. At SENAC, the innovation agenda is focused into the discussions of the changes in future skills demands caused by the introduction of disruptive technologies in these sectors.

The focus on the provision of skilled workers is also reflected in the representation of the services offered by SENAC-RJ. According to SENAC-RJ (2019, own translation, p. 25), the services focus on transforming the demands from "governments, companies, unions, employers' associations and civil entities" into several types of TVET courses, courses' content and learning activities including secondary- and tertiary-level TVET, as well as short-term courses, specializations, distance learning programs, book publications, and customized projects for companies, public agencies and social entities.

In the last years, the cornerstone of its modernization efforts revolves around the development and implementation of the SENAC National Pedagogical Model. For SENAC, it entails aligning TVET courses closely with employers' needs, ensuring that the skills and competencies imparted to students are in high demand within the job market. By doing so, SENAC seeks to foster the employability and "productive inclusion" of young and adult individuals, effectively integrating them into the workforce (SENAC.National).

The framework of the SENAC National Pedagogical 230 Model describes the special curricular unit of 'integrating project' as a practical proposal of effect. In the development of 'integrating project' and innovative solutions, TVET graduates are expected to present the SENAC's formative marks, namely the entrepreneurial, sustainable and collaborative attitudes, technical-scientific expertise, and critical view. In SENAC's discourse on the development of 'integrating project' and innovative solutions, TVET graduates can be represented both as innovation 'developers' and 'implementers'. As implementers, TVET graduates must shows the skills required by new technologies in commerce and tourism. However, while acting as developers of innovation through 'integrating projects', TVET students are not provided the opportunity to be inserted in scientific activities as it is in the case of SENAI and the Federal Network. The kind of innovation developed by TVET students is rather the result of project-based learning detached from the activities of research and development in cooperation with private companies and universities.

Against this background, this research identified that the discourses on TVET modernization among the SENAI and the Federal Network reflect a radical approach that seeks to enhance the participation of TVET and TVET graduates in the linear model of innovation in Brazil. In this way, TVET and TVET graduates are presented as main actors also in the processes of technology and innovation development. On the other hand, SENAC – one of the major TVET providers in the country – reflect a conservative view that restrict the role of TVET institutions and TVET graduates in processes of installing, adapting, operating, and maintaining technology and equipment.

6 Discourse as social practice: different possibilities of TVET modernization in Brazil

This last analytical section briefly compare the different perspectives on TVET modernization in Brazil and its possible effects in terms of TVET and TVET graduates' participation in innovation processes.

National and local discourses on TVET in Brazil frequently make use of the expression 'TVET modernization' to describe the process of adapting, changing or reforming current TVET systems to achieve a desirable future state (MEC, 2018; CNI 2019; SENAC, 2019).

However, as showed in the last section, the effects of the different discourses on TVET modernization in terms of participation of TVET and TVET graduates in systems of innovation can be quite different.

The analysis of the discourses in Brazil showed two different perspectives of TVET integration in systems of innovation, that will be here described as 'conservative TVET modernization' and 'radical TVET modernization'[1]. These two categories are based on an interpretative exercise: discourses based on the conservative TVET modernization approach, as seen in the case of SENAC, suggests that modern TVET systems must focus on traditionally established TVET services – mainly skills development through training. Within this specific discourse, TVET modernization is characterized rather as a process of adjustments or improvements in traditionally established TVET services. On the other hand, the discourses based on a radical TVET modernization seek to incorporate new types of TVET services, which redefines the nature of TVET systems and by doing so, suggests different roles of TVET in systems of innovation. The radical TVET modernization approach was identified in the case of SENAI and the Federal Network in Brazil.

In this context, the conservative discourse seems to reinforce a representation of TVET as an important mechanism of skills formation, while other educational institutions, such as universities and research institutes are perceived as producers of knowledge through basic and applied research. Within this discourse on TVET modernization, the main role of TVET is to provide skilled individuals to act as workers and competent users of technology in contexts of substantial shifts in labour demands and the use of technology in labour markets. By doing so, this conservative approach departs from a scenario where TVET is located in the end of a linear model of innovation. This suggests that SENAC selectively excludes TVET schools from adopting different roles in the Brazilian innovation system, as it remains seen as a type of institution that does not generate or codify knowledge.

On the other hand, the radical discourse on TVET modernization presents a broad process of TVET transformation, in which TVET institutions compete and collaborate with universities in innovation processes highly centred on the activities of research and development, with a focus on applied research projects, while the provision of TVET skilled workers remains at the core of the services provided by TVET. Against this background, the TVET policies in the Federal Network and SENAI also present the objective

1 The use of the terms radical and conservative modernization here refers exclusively to the degree of change that is reflected in the discourses.

to obtain extra funding through the provision of services related to the development of innovation. In both cases, the integration of technology transfer, applied research, and the provision of a skilled workforce is central to the modernization efforts. This vision of TVET institutions as innovation hubs does not excludes the most traditional focus on skills formation, as it remains an important contribution of TVET to innovation policies. It rather seeks to create a symbiosis between training programmes and research-oriented activities.

Lastly, this paper argues that both radical and conservative discourses seem to corroborate Toner's representation on the roles of TVET graduates in the DUI mode (learning by doing), which include "design, install, adapt, operate and maintain equipment, software and other technologies" (Toner, 2010, p. 80). However, the different perspectives (conservative and radical modernization) seem to highlight different roles of TVET graduates within the linear model (STI mode). SENAI and the Federal Network highlight the participation of TVET graduates during the whole STI mode, which includes not only the utilisation of knowledge and technologies but also a crucial participation on the generation and codification of knowledge in the STI mode. In the case of SENAC, the participation of TVET graduates in the linear model is often presented within the world of 'praxis'. This suggests a view of TVET graduates as 'competent users' of the knowledge generated and codified in the world of 'science'.

7 Further points for discussion

This last section presents some further points for discussion concerning the theoretical and methodological aspects of the research, including a debate on the limitations of this research.

The first point for further discussion refers to a critique to the use of orthodox Political Economy of Skills – and its normative representation of TVET as a type of education exclusively focused on imparting skills within skill formation regimes (Busemeyer, 2015) – in comparative and international studies. Within this framework of analysis, TVET is exclusively considered as a key mechanism for equipping the workforce with the skills required for the "jobs of tomorrow" (Tether, Mina, Consoli, & Gagliardi, 2005). This research argues that the use of this orthodox approach can make it harder for researchers to perceive and identify other possible roles of TVET in innovation processes, including acting as intermediaries between companies and services, and providing technical expertise in the form of research and development activities. This can also help to explain why are there very few studies that seek to conceptualize the role of TVET and TVET graduates in innovation processes, especially considering the growing importance of the orthodox PES approach in the field of TVET research in the last decades.

This paper argues that the use of the critical discourse analysis approach is fundamental to investigate the semiotic aspect of different TVET policies, especially in the comparative and international perspective. This approach helps to overcome the normative vision of TVET as described in the orthodox Political Economy of Skills, as it opens a space for different voices, including the experiences in regions that are not historically considered within the framework of the PES. Along with this line, this approach con-

tributes to de-naturalization of the idea of TVET as a mechanism of skills formation and diffusion, which in great sense reflects better the TVET cultures of developed countries.

However, the way the CPE approach has been materialized and implemented requires further development to fully achieve its potential. This paper argues that there is a need for combining the Critical Discourse Analysis with other types of methods that are more appropriated to analyse aspects of structuration. As CDA is described as the main type of method of analysis within the CPE approach, it may corroborate to the criticism of CPE as too constructivist (Staricco, 2015; Jessop & Sum, 2017).

Likewise, with the use of the Critical Discourse Analysis, the type of data collected and analysed in this research can be mainly described as qualitative data (text) in the form of number of interviews and documents produced within the time span of 2011–2019. This, in part, creates important issues for the results of the research. For example, because CDA is more appropriated to be implemented in the analysis of a limited number of texts, this research did not include a greater number of documents or other social actors, such as Trade Unions, or individual companies. In further investigations, the inclusion of a broader number of data sources (including quantitative analysis), therefore, could be beneficial to better understand the challenges and social tensions within innovation and TVET policies.

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TVET History and Reform

The Case of Palestine

Malaka Samara

Abstract *This paper explores and analyses the evolution of Technical and Vocational Education and Training (TVET) in Palestine since 1860 and critically reflects on the main differences and changes of traditional and current TVET. Some of the initial differences include: (1) TVET goals and objectives and (2) approaches to connect learners with the real world of work. Exploring TVET reform will illustrate the regression of its current model concerning quality, relevance and responsiveness. The article is seeking to provide a deeper understanding of TVET development and changes throughout history through a critical sociological theory lens. It will also reflect on the current conditions in Palestine under the social, cultural, political and economic systems that have been affecting the TVET system and students' vocational choices vs. academic choices.*

Title *TVET History and Reform. The Case of Palestine*

Keywords *sociological, history, traditional, experiential, strategic*

1 Introduction

Due to its vocational nature and being inherently tied to a specific trade or occupation, Technical and Vocational Education and Training (TVET) is traditionally a non-academic approach to learning. Accordingly, the objective of TVET is to teach skills, knowledge and attitudes that relate to a certain profession and create employment opportunities and enhance motivation and competitiveness for advanced skills and creativity in the workplace (Mintrom, 2014). TVET objectives also involve providing the market with trained and skilled workers, or qualified technicians and practitioners who are able to contribute to social and economic development and respond to the changes in the labour market. This is achieved by offering a special training programme with a focus on practical and

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applicable skills in order students to subsequently obtain a permanent job in a specific trade (Sulaiman, Yunus, & Ahmad, 2019). This is the reason experiential and self-regulated learning was one of the main features and characteristics of traditional forms of TVET. Learning was simply not limited to attending classes or lectures guided by teachers. Alternatively, the concept of learning tells us that "deep, lasting, independent learning requires a range of activities – cognitive, affective and even physical – that go far beyond reading and listening" (Nilson, 2013, p. 4).

Traditional TVET was able to provide the market with semiskilled, skilled and craftworkers. Learning a vocation was considered a necessity not only for a stable long-term job but also for life-long learning. The term "lifelong learning encompasses all learning activities undertaken throughout life for the development of competencies and qualifications" (Aggarwal, 2005, p. 34). This is not only relevant for a lifetime job, however, this life-long learning was combined with experiential learning and depends on individuals to seek further and advanced skills, competencies and knowledge. Traditional TVET responded to the needs and requirements of the community, while the current TVET has been under the pressure of the current implementation of education policies that deviate TVET institutes from the direction that achieves goals. Thus, traditional TVET communities experienced economic and social prosperity more than current communities.

The methods of traditional TVET focussed on professional and personal competencies including (but not limited to) communication, problem-solving, self-motivation, work ethics, discipline and entrepreneurial skills. It was a comprehensive and holistic approach that consisted of a number of variables that influence learning (Panadero, 2017). Teachers of the traditional form were also trained in specifically how to teach as well as how one learns and acquires new skills. Life-long and experiential learning was not only limited to the students but also to teachers who were learning side by side with their students as part of Self-Regulated Learning (SRL). "SRL is a constant goal for everyone, including both teachers and students" (Harding, 2018, p. 6). The acquisition of skills and competencies requires both the teacher and learner to develop strategies for teaching and learning respectively in order to be able to think critically, reflect and learn new knowledge and skills to achieve the learning objectives with quality output.

Developing and enhancing professional and personal competencies is one of the most important issues for policymakers and TVET stakeholders as part of achieving the collective TVET goals and objectives (Brewer & Comyn, 2015). Their overall objective is to contribute to social and economic development and be able to respond to any changes in the labour market by equipping qualified and competent manpower. More specifically, there are certain objectives for each level of TVET according to the classification (or rather, the level) of their institutes (Samara, 2016). For example, the objective of TVET training institutes is to train and provide the market with semi-skilled workers (level 1), while the objective of TVET secondary schools is to equip and provide the market with skilled and craftsmen (level 2 and level 3) and the objective of the technical colleges is to equip and provide the market with technicians and experts (level 4 and level 5; see Table 1). This is why it is important to define the objectives of each level and work practically to meet these objectives.

In Palestine, the current stage of TVET, especially secondary vocational schools, aims to primarily prepare their students for higher education. However, this aim directly con-

tradicts their stated objectives of preparing skilled graduates for the market. In addition to this, there have been numerous global challenges affecting the labour market, including newly emerging industries and globalisation leading to drastic changes to older working methods. Meanwhile, these changes are also coupled with a global economic recession and an increasing unemployment rate (Comyn, 2018). These factors have all contributed to an increase in a skills mismatch between education and the market. The main consequence of this is the inability of learners to find opportunities for Work-Based Learning (WBL) which allows for the acquisition of professional practical skills, competencies and attitudes in a real-world work environment. WBL is described as being used in vocational education and training "to develop basic work habits, occupational identity and specific occupational competencies" (Sweet, 2013, p. 170). Thus, practical skills and competencies are necessary to bridge the gap between education and the market and help to avoid the consequences of skills mismatch

Besides the current higher-education focussed system, the lack of efficient and successful work-based learning (WBL) practices and methodologies or the unsystematic WBL practices and activities (Samara, 2021a) persist due to a lack of a goal-oriented system; TVET system is failing to achieve their goals by not providing the market with skilled workers, crafts and technicians, especially graduates of secondary vocational schools and vocational colleges. The local and national industries are in high demand for qualified skilled workers and craftspeople who are supposed to be TVET graduates. Instead, there is an increasing gap between the needs of the market and the majors offered in TVET institutes. The results of a study prepared by the Palestinian Policy Research Institute (MAS) entitled "Skills shortages and gaps in the industrial sector in the occupied Palestinian territories" emphasised the scarcity of skilled workers due to the lack of necessary skills and experience and the lack of the required specialisations in the education institutions and this presents the most prominent obstacles to the development of the industrial sector in Palestine (Al-Ayyam Newspaper, 2019).

In the last 20 years, the shortage of skilled labour has become a major challenge facing numerous traditional industrial and vocational sectors in Palestine, which has even led some employers to halt production lines in their enterprises. Despite the high unemployment rates, there is a severe shortage of skilled labour workers particularly in the field of technology and machine maintenance and operational qualifications due to the lack of majors in TVET institutes that meet the market demand and due to the lack of workers who prefer to join the regional markets seeking better opportunities and higher salaries. Additionally, there is a lack of communication between employers and TVET graduates without a stringent employment agency or tool to support this communication. This causes great economic and industrial losses, often then leading to the closure of several factories and thousands of workshops. This in turn has raised fears among entrepreneurs about the future of the remaining working businesses and industries (Amr, 2021). One of the strategic approaches therefore strengthens TVET and skill development within a framework of lifelong learning (Comyn, 2018), open majors in TVET institutes that meet the market and industry demand for required knowledge and skills, work to improve communication and relationships between employers and TVET institutes and qualify TVET personal to be familiar with technological developments in the industrial sector.

Furthermore, in times of ongoing crisis in Palestine, education and the economy, one can see further setbacks. In any practical profession, WBL is crucial in the learning process in order to see a practical application of the skills required for the job. However, when the opportunities for WBL are limited, for instance in the case of the COVID-19 pandemic where most learning was transitioned to a remote setting, it became almost impossible to meaningfully teach practical professional skills (Samara, 2021b). As teaching was still being developed remotely, the need for experiential and self-learning became even more critical. Therefore, current economic crises are a call to awaken governments and individuals to the importance of changing the nature of TVET programmes and adopting teaching and learning methodologies to address the challenges and be able to prepare education programmes focusing on immediate youth employment. This cannot be achieved without considering the need for sustainable WBL forms that can manage economic crises or are adequately supported so they can be maintained as a learning methodology and strategy for teachers and learners to equip learners with life-long learning skills and 21st-century skills to boost learners' innovation, creativity and critical and reflective thinking (Bell, 2010).

2 Methodology

This paper uses sociological theory (Akanle & Olutayo, 2021) by providing a deeper understanding and explanation for the traditional and current TVET system changes and reform in Palestine. This will explore and analyse social, cultural, political and economic perspectives and changes that exist in the community (Thompson, 2017). This paper explores and analyses the popular perception of TVET in Palestinian society and therefore seeks to offer insights to transform individuals and communities from a certain perception of disempowerment (Douglas, 2003).

The primary data were collected from main TVET stakeholders including representatives from the Ministry of Education (MoE), Ministry of Labour (MoL), the private sector and sociology experts. The study mainly used in-depth interviews to collect the necessary data to help understand the reasons for the changes that took place in traditional vocational education through understanding the current situation of TVET, policies, education objectives and stakeholders' and learners' perspectives and experiences. In-depth interviews were also conducted with TVET students, TVET graduates and their parents.

As secondary data collection, there was a bibliographical analysis of varied resources such as books, journals, online newspaper articles, and online news reports on the history and development of TVET. This also included an analysis of TVET strategies and policies.

This paper consists of eight sections. Section One introduces the study and its surrounding context. Section Two outlines the paper's methodology and tools. Section Three introduces the history of TVET in Palestine since 1860 followed by Section Four which covers the current classification of TVET Institutes in Palestine. Subsequently, in Section Five, the paper introduces the political development in Palestine since 1948 and Its Impact on TVET. Section Six presents the social-cultural perception towards TVET in Palestine. A final section before the conclusion addresses TVET development from 2011–2023.

This study took place in Palestine in 2023. All the interviews and data were conducted, collected and analysed before the war events took place on October 7, 2023. In July 2019, Palestine was recognized as a state by 138 of the 193 UN Member States. However, many countries do not recognize Palestine as a state (Roth, 2023).

3 History of TVET in Palestine

Traditional TVET in Palestine was first introduced in 1860 when the Ottoman Empire allowed foreigners to establish schools. The German teacher Johann Ludwig Schneller established the first vocational school in Palestine and called it the Syrian Orphanage (in German: *Syrisches Waisenhaus*) (Zachs, 2019). The school aimed at addressing the needs of individuals and communities and started providing vocational training to hundreds of orphaned, refugees and needy children to teach them practical vocational skills and competencies to enable them to acquire a profession to earn income and eventually be able to support themselves. Their training programmes were limited to vocational traditional professions such as sewing, shoemaking and pottery. After that, in 1863 the Salesian School was established in Bethlehem as a vocational school to achieve comparable goals to the Syrian Orphanage. During the British Mandate, the Islamic Orphanage was established in Jerusalem in 1922 as an industrial school to help orphans and the needy provide a decent life by training for a specific profession. The Khadoori Agricultural School was established in 1930 in Tulkarm, to train other students who had completed primary school on the general farming method and agricultural education for a period of two academic years, which became three years in 1943 and the graduates returned, as successful farmers, to work in their villages and train other citizens (Sabella, 1983). In 1933 the first government vocational school was established in Haifa. The first training centre was established in Jerusalem in 1948. Then, it was transferred to Beit Hanina in 1964. Most of the students enrolled in this centre were orphans and children of poor families and refugees (Busailah, 2018). Since 1958, during Jordanian rule, the TVET system covered the secondary education stage and the higher education stage under the Jordanian Ministry of Education, where the government and UNRWA established a number of vocational schools, vocational training centres and community colleges especially to support refugees who live in the camps (Hilal, 2019).

As described above, the traditional TVET system was able to provide the market with semi-skilled, skilled and crafts workers. Over time, these traditional professions had seen prosperity. Thus, shops selling clothes, leathers and shoes were increasing and expanding in all Palestinian cities to serve the local market, having the capacity to employ more people then after years these shops expanded to become factories in some cities and started to employ hundreds of workers and producing and filling the local markets with high-quality local products (Tomizy, 2015).

Families used to be named after their profession and the profession became a profession for the whole family and inherited from one generation to another. This inheritance did not only include professional skills but also included interpersonal skills that the learners were learning while travelling for the purpose of learning new skills and meeting with new people of the same profession (Bazzi, 2011). Palestinian society knew and

recognised families under the names of their job such as the tailor family, عائلة الخياط, the carpenter familyعائلة النجار, the blacksmith family, عائلة الحداد (Saraya Agency News, 2018). Furthermore, in every village, several women learned vocational professions and were working and running their own individual workshops in their homes, owning their sewing machines and knitting. These women used to sew clothes for all the villagers around and would then pass these skills on to other girls who showed the desire to learn the profession.

WBL for traditional TVET was informal through experiential and self-regulated learning. Students who completed their studies at school were sent to another neighbouring country to develop other alternative new skills, knowledge and competencies, not necessarily available locally. In this example, learners from Palestine would visit neighbouring Arab Countries such as Egypt, Syria and Iraq for self-regulated and experiential learning to learn a certain profession (Bazzi, 2011). Upon their return, they would assist in teaching their fellow students by hosting workshops and learning sessions to share what they have gained from their experience related to that vocation. Teachers would then observe students' individual skills, personal characteristics and motivations to assist in guiding them to a vocational profession that suits them. Teachers and students were aware of the nature of the job and what kind of skills and competencies were required. Experiential and self-regulated learning was allowed to flourish because students and learners had personal motivation, critical thinking, investigation and travel for knowledge.

This way of learning is explained in the six propositions of experiential learning theory (Kolb & Kolb, 2008). The experiential learning process is based on a cycle that consists of four stages (Ord, 2012). However, vocational learners in Palestine were going through different stages of learning which are :

- Learning the profession
- Travel to gain more professional and personal skills- individual motivation
- Return to share and reflect on their experience
- Teaching others who are learners in the workshop
- Expand their work and profession in a more creative way and in a more skilled and professional way to become teachers for other learners.

TVET institutes played an important role in the local market and for the local community. The vocational school was considered the main provider for skilled and crafts workers who were working in the shops and factories of the traditional majors. Students were graduating with adequate skills and knowledge about their profession and were ready to make the transition from school to work immediately after graduation, gaining advanced professional and personal skills and then starting their own workshops and private business. Students were developing advanced professional and personal skills individually, driven by their motivation and desire to learn the profession.

In the 80s, the industrial and vocational enterprises between small and medium enterprises (S/ME) were the most widespread. Palestine was renowned for a variety of products such as among others shoes, stone, soap and glass. For these traditional professions, Palestine used to have thousands of factories and shops but have been

the most affected by the crises of skilled workers shortage. Only in Hebron city, these factories employed more than 1,800 workers, constituting 39 % of the total workforce in the field of industry in Hebron. Its production covers the entire Palestinian market and a large part of the Israeli market (Amr, 2021).

4 Current Classification of TVET Institutes in Palestine

In Palestine, there are three main classifications for TVET institutes. The classification depends on (1) the objective of the institute; (2) students' qualifications and academic achievement in grade 10 (student age is 16) and if they pass it or not and (3) the social status of the learner as a refugee, orphan, widows, family status or gender (for differences, see table 1) (UNESCO-UNEVOC, 2012).

4.1 The Formal Institutes

The formal TVET institutes in Palestine are considered and affiliated with the Ministry of Education (MoE) and include:

(1) Upper Secondary vocational schools (student age is 16 to 18) that qualify and provide the market with skilled and craft workers of level 2 and level 3 (see Figure 1). These schools focus on preparing students for work on the one hand and joining community and technical colleges and universities on the other hand. Students in these schools spend half of their studies studying general subjects and the second half students join practical training in the profession. To be accepted into these schools, students must successfully pass the tenth grade and then attend the school for two years. After graduation, students take the high school exam for the vocational stream and if they pass, they obtain the high school certificate for the vocational stream, which qualifies them to enrol in community colleges or in the university according to their major and profession in the school.

(2) Community colleges and technical colleges that graduate and provide the market with technicians and experts of level 4 and level 5 (see Figure 1). To join these colleges students must pass the high school exam successfully. Students study for two years and then they can also join universities if they pass a final comprehensive exam.

4.2 The Non-Formal Learning Institutes

The non-formal TVET institutes are the vocational training institutes and training centres such as the vocational training centres that are affiliated with the Ministry of Labour, the Ministry of Social Affairs, the United Nations Relief and Work Agency (UNRWA) and the Chamber of Commerce as the main providers. There are other organisations that also provide the community and learners with vocational training programmes and courses which some of them are affiliated with the private sector. Non-formal means that the provided vocational training, courses and programmes have different durations that extend from five months to two years, courses do not have a predetermined curriculum, and there are no minimum qualifications for learners who want to join the courses. Ad-

ditionally, learners are granted recognized certificates by the MoL but are not recognised by the MoE. Thus, learners and graduates cannot join higher academic education. Such non-formal vocational training courses are linked to certain defined objectives, curricula and qualifications. However, these programs are not connected to the educational system that is considered formal.

These vocational training centres qualify learners to be in level 1 of TVET which is semi-skilled workers (see table 1). With the Ministry of Labor (MoL), the duration of the training courses ranges from five to 14 months depending on the type of course and training objectives. Upon completion of the course, the student receives a course certificate from the Ministry of Labour. With the UNRWA, the duration of the training courses ranges from one to two years. After students complete the training, they receive a diploma in the profession for which they were trained.

Table 1: Classifications of TVET Institutes

Classifications of TVET Institutes			
Name	Vocational training institutes	Vocational secondary schools	Vocational colleges
Level	Level 1	Level 2&3	Level 4&5
Objectives/graduates	semi-skilled workers	skilled and craftsman	technicians and experts
Students who can join	Finish 9th grade (above 15 years old)	Finish 10th grade (above 16 years old)	Finish high school (above 18 years old)
Higher education possibilities	Students cannot join colleges or universities	Students can join colleges and universities	Students can join universities
Ministry affiliated with	– Ministry of Labour (MoL) – Ministry of Social Affairs – UNRWA – Chamber of Commerce – Other private employers	Ministry of Education (MoE)	Ministry of Education (MoE)

5 Political Development in Palestine since 1948 and Its Impact on TVET

Since 1948, the education system in Palestine has been controlled by Israeli policies (Mahamid, 2017). According to Abu-Saad (2006), Palestinians had limited access to schools and studies such as vocational, agricultural and scientific studies with limited participation in education policy-making, access to resources, education materials, freedom of movement for education and international cooperation.

The Palestinian National Authority (PNA) was formed in 1994 and in 1996 Palestine achieved autonomy. As a result, the PNA took control back of the education system represented in the Ministry of Education and Higher Education (MoE&HE) including TVET system and policies (Dana & Jarbawi, 2022). From 1995 to 1996, under the National Strategy, the MoE&HE implemented reform on the Technical Vocational Education and Training (TVET) system. In 1998, the MoE&HE created the National TVET Strategy for TVET reform (GIZ, 2010). This strategy was developed with the involvement of the private sector and the Ministry of Labour (MoL) as main partners. The national TVET Strategy aimed to create a Palestinian TVET system that is efficient, effective, flexible and linked to the needs of the labour market and available to all groups, in a way that achieves justice (Nicolai, 2007). From 2000 to 2005, the National TVET Strategy was not implemented due to the start of the second uprising that resulted in worsening of the political situation due to the Israeli military attack on Palestine (Lin, 2021).

In 2000 the second Intifada (uprising) started, once again due to the military attacks that destroyed the infrastructure of the government headquarters including ministries (Lin, 2021). This lasted until 2006 until the legislative elections were held. In 2006, Hamas won the elections and their new government was formed with new policies (Brown, 2010). The international powers boycotted the new government and stopped all international financial support in an attempt to force Hamas to leave the government (Nicolai, 2007). An inner conflict started between the two main political parties Hamas and Fath. Since then, Palestine started to have two governments, one in the West Bank (Fatah) and one in the Gaza Strip (Hamas) (Brown, 2010). These political crises affected the implementation of the National TVET Strategy. However, concerning education and TVET, the West Bank and Gaza remained working under the same TVET policy and the same MoE&HE . After that, in 2006, MoE&HE created a Revised TVET Strategy that was issued in 2011 (GIZ, 2010).

Political stability in any country is important for social and economic stability and development (Pastore & Zimmermann, 2019). The political situation that Palestine has been going through is affecting the TVET system development. This includes many issues among others TVET policy implementation, School to Work (STW) Transition and the cooperation and engagement with employers and with the private sector. It also affects employers themselves, their business sustainability and their capacity to offer places for Work Based Learning (WBL) for TVET students and graduates (Sayre, 2017). The political crises and their negative implications and consequences have been creating a continuous situation of uncertainty and causing the absence of sound development projects by the government and thus limited the capacity of all TVET stakeholders, partners and TVET institutes at all levels (General Union of Palestinian Economists, 2018).

6 Social-Cultural Perception Towards TVET in Palestine

The existing inferiority of the majority of people in Palestine towards TVET and the lack of awareness of TVET's importance for social and economic development encourage individuals to measure their achievement-based academia rather than developing their practical skills (Al-Shalabi, 2019). This has originated from the governing system partic-

ularly the education system that affects individual behaviours including their relationship with a job and their way of considering education and acquiring skills and competencies (Ivković,1999). This perception and understanding of TVET and its graduates as inferior prevent people from recognising its importance and impact, especially graduates of TVET skilled workers of level 2 and level 3 (see Figure 1) for social and economic development in the market through its creation of skilled and crafts workers. The result is that the markets in Palestine become sparse of many professional and skilled workers which creates an imbalance in the labour market and the industrial sector in Palestine (Al-Ayyam Newspaper, 2019).

Additionally, the prevailing trend of parents supporting their children to pursue academic studies after they graduate from TVET institutes is to seek social status for their children and to seek an employee with the government with a permanent salary (Al-Shalabi, 2019) . This behaviour has also affected individual attitudes toward learning from experiential learning work to seeking a job for life and salary by flowing to the cities, adopting a new lifestyle heading towards academic education and seeking academic certifications rather than seeking a profession (Samara, 2022). This, in a way, has made people being identified as consumers more than producers. People are not aware that they are being exploited in the name of education at a time when the education system is business-driven (Samkange, 2015). People started to become accustomed to and become dependent on this model of easy and cheap exports from countries such as China and Turkey (Al-Deek, 2016).

This social lifestyle has prevented people from being more independent and prosperous individuals by not understanding their circumstances and not taking action to make a change and being able to choose what empowers their social and economic life (Kantzara, 2012).

7 TVET Development From 2011–2023

The TVET system in Palestine has been suffering from numerous challenges, including a fragmented TVET system going unaddressed among a number of ministries, the absence of participation from both the private sector and civil society, the lack of qualified staff and the absence of a Palestinian law concerning TVET legislation (Nicolai, 2007). Furthermore, there is a decrease in the rate of youth interest in TVET and enrolment due to a culture of preference for academic education over TVET programmes in Palestinian society. This preference persists as a result of the belief that academic education opens possibilities for better jobs, higher salaries and a recognised social value in the community for individuals. In other words, due to the popular understanding of inferiority associated with TVET students and graduates and the lack of awareness of parents and students of the importance of these specialisations and their areas of work in providing future opportunities (Daraghma, 2020).

Additionally, according to the Ministry of Education and Higher Education, there is a significantly increasing rate of unemployment among academic graduates (MoE&HE, 2017). The Palestinian labour market suffers from a weakness in its absorptive capacity for the number of graduates from higher education institutions, as a result of their fail-

ure to align educational output with what the local market demands. This is due to an overemphasis and focus on theoretical and cognitive curricula away from practical programmes and training.

In light of the above situation, reform was a necessity to address these challenges and work to eliminate them. The reform for TVET began in 1996 and resulted in many changes. According to the TVET reform strategy, all TVET elements that required reform were addressed (GIZ, 2010). Curricula were changed concerning their content, objectives and teaching and learning methodologies. This consisted of new policies in Public-Private Partnership (PPP) that were developed to enhance partnerships with the private sector and thus bridge the skill gap between students and the market in order to facilitate employment (Samara, 2016).

Furthermore, more schools were opened and girls have been included in new and old existing majors after years of exclusion from joining vocational majors in TVET schools, in specific vocational secondary schools. Accordingly, the number of students and majors has increased in response to the rapid market change and the emergence of new industries such as smart buildings and renewable energy.

The new majors have been failing, however, to equip their graduates with the necessary skills due to the lack of efficient implementation that could achieve the intended learning objectives. TVET institutes' education output still remains unaligned with TVET policy and strategy objectives (GIZ, 2010). Besides, the newly opened majors in the schools have been encouraging, preparing and directing students to pursue higher academic education, particularly in engineering instead of focusing on empowering their professional skills to engage directly in the market. This creates a real crisis in the TVET system and hinders TVET from achieving its objective and thus increasing unemployment. In 2018 according to an interview with a representative of the Engineers Syndicate in the West Bank, there has been a significant increase in engineer graduates reaching 20,400 engineers (Engineers Association, 2017) Currently, the universities accept graduates of TVET schools to join all engineering branches.

This means that TVET institutes started to attract students who aim to join the university and study academic majors. In most cases, academic majors at the university do not relate to what students study at the school. For example, most students can join any major at the university except for medicine and medical-affiliated colleges. This means that students lose the opportunity to build up on their skills and profession they gained from the school and lose the opportunity to work within the qualifications they gained from the vocational school. This has affected students and the local community's mindset and culture to perceive TVET as an academic path rather than a vocational opportunity that students can contribute to the social and economic development that TVET could bring to the community. With the reform policy, TVET has become education-oriented, not employment-oriented (Al-Shalabi, 2019). This also serves to explain the high rate of unemployment amongst youth according to the Palestinian Central Bureau of Statistics (PCBS) in 2021, the unemployment rate for males in Palestine was 23 % compared to 42 % for females (PCBS, 2021). This doesn't serve the TVET objective of providing the market with skilled and professional workers.

When TVET secondary schools are no longer a provider of professional workers for the market and local enterprises, especially the traditional professions such as clothes

and shoe manufacturing, the whole market of supply changes concerning such industries. When traditional businesses collapse and close, something else will replace them to provide the market with products. The main consequence of this however is that globalisation became the solution by allowing lower-quality products from China and Turkey to fill the market (Al-Deek, 2016). This has led to the current domestic market in Palestine being largely dependent on imported products rather than producing local high-quality products. This has caused less demand for local products produced by local factories and enterprises that are run and working by hundreds of TVET skilled and craftworkers (Moussa, 2022). As a result, this has caused less demand of local industries for skilled, crafts and technicians in the labour market. This started to represent a serious challenge facing these professions and factories and threatened any possibilities of their expansion and development. Such factories included the plastic industry, glass industry, shoe industry as well as cloth and leather factories (Al-Ayyam Newspaper, 2019).

Concerning the changing of the TVET curriculum, the reform strategy in 2010 stated that this should include curriculum development methods and approaches of modern teaching and learning, emphasising integrating social and individual development and Lifelong Learning (LLL) (GIZ, 2010). However, the implementation of the new curriculum of teaching modules and competencies faced challenges that included teachers' qualifications to deliver the new approaches (Samara, 2018). Thus, the modified curriculum was unable to go side by side with the necessity for providing teachers with the necessary training to empower their skills to deliver the curriculum and be able to achieve the learning objectives. Besides, the reform was not a comprehensive preparation for all TVET personnel including teachers' training and students' preparation for the labour market. The reform, especially on the implementation side, did not include the conceptual perspectives that include cultural, professional, psychological, institutional and political perspectives (Samara, 2023a).

Part of the reform aimed at expanding and networking with local government and organisations to facilitate TVET governance and provide professional training for learners. For this reason, the Local Employment and TVET councils (LET) were established in each city in Palestine (Samara, 2023b).

In 2019, the Palestinian MoE started working to integrate vocational education with academic education in some schools to graduate competent and qualified students to meet the labour market and contribute to solving the problem of the increase in academic graduates. The programme aimed to integrate vocational education into the basic grades (from seventh to ninth grade) and was implemented to enhance the vocational concept among students of both genders, which works to refine their future vocational orientation. Additionally, the MoE has created vocational units for the secondary majors of technology, cosmetology and graphic design.

In 2019, the MoE in cooperation with the Ministry of Labour (MoL) started a new track for WBL which is the apprenticeship track for the first time in Palestine, WBL practices take the formal arrangements between three partners including the employer and the two ministries. The process involves a contract, salary and health insurance for the student. However, this is still limited to a few schools and a few majors in Palestine (Samara, 2021).

In 2020, the decision of the Council of Ministers was taken to establish the National Authority for Vocational and Technical Education and Training with the main responsibility of being the sole authority and entity who is responsible for drawing up the policies and laying down the necessary plans for enhancing and supervising the TVET system. Till this year 2023, the government is still addressing challenges and not taking any action plan or efficient implementation for the planned strategy to address the real problem practically. Without efficient implementation as a crucial element for a successful strategic plan, TVET institutes will not be able to achieve their objectives (Tawse & Tabesh, 2021). The government attempts to write new strategies and policies, expand the network, change administrative institutes that represent TVET and start new initiatives or programmes in the excuse of new reform to achieve the objectives, yet, no concrete success in increasing the attractiveness of TVET system or increasing the community trust in the education output because according to the Ministry of Labour, the percentage of learners who join TVET programmes is 8 %, compared to 92 % for academic education (Ministry of Labour, 2021). Thus, reform must focus on the quality of the scale rather than focusing on the size of the scale and the quantity of increasing TVET schools' number or majors (Samara, 2023). Additionally, there is no importance or prioritisation shown by the government for developing, qualifying and preparing human resources in TVET education as a first step before opening any new school, programme, unit or major. There has been no adequate attention and investment in preparing qualified and competent TVET teachers. When this step is not taking any priority over all other elements, then there should be certain fears about the possibility of the success of TVET institutes in achieving their objectives. Because competent personnel is one of the main foundations for the success of implementing reform or facing any change in education. Thus, the staff must be empowered and motivated (Suciu, 2017).

8 Conclusion and Outlook

In the current economic, social and political crises in the world and in Palestine particularly, TVET is the only solution that can deal with and face challenges to reduce unemployment and respond to the rapid change because of globalisation, technology and emerging industries and the high rate of unemployment amongst academic education graduates. Bridging the gap is a necessity between the higher education academic institutes' business interests and the needs of society and individuals. TVET institutions must start to be goal-oriented to achieve their defined objectives for every level by developing and enhancing not only a strategic plan and policies but also a strategic implementation is required to achieve the objectives of every level (Tawse & Tabesh, 2021). Knowing that the overall objective of all TVET levels is enhancing social and economic development. Every level must be addressed separately and an action plan must be prepared separately to enable a successful and focused implementation and steps. This will enable the TVET system to produce and provide the market with more competent skilled crafts and technicians for the market and will enhance individuals' and families' well-being and social and economic development by supporting and providing local enterprises and local professions with skilled force work.

Accordingly, critical and reflective thinking is needed to analyse and understand the factors of success for the future of TVET institutes in Palestine, their role in the market and how to rebuild a system that can contribute to local socioeconomic prosperity by meeting individuals' and communities' needs. Furthermore, cooperation is required between TVET policymakers and related institutes to define and regulate policies for acceptance either for universities or for the TVET institutes, particularly TVET secondary schools, to increase the quality of students and direct them to the field of their study in the school rather than pursuing another field in the academic studies.

For any reform in TVET, it must be comprehensive, not only in the planning phase but also in the implementation phase. Otherwise, all the ongoing suggested solutions of new strategies and policies for reform will remain theoretical without any practical results to improve and change the situation. In short, the scale of any reform will remain without quality (Reimers, Amaechi, Banerji, & Wang, 2022). Additionally, TVET practitioners and personnel must utilise international experiences in education and TVET reform strategies, implementation, theories, gaps and challenges and adopt useful practices for implementation within the available and possible resources and capabilities of the TVET institute and the country.

To conclude, TVET still suffers from a stereotypical societal view of inferiority, despite the interest and efforts of the government and numerous ministries in this sector and the continuous attempts for reform. This consideration of inferiority impacts the type of students who join TVET institutes and has been associated with poor academic achievement learners. This has increased the demand for academic education and the reluctance to join TVET institutes, especially TVET secondary schools. Ultimately, this has impacted the quality of vocational schools' outputs and the quality of the workforce.

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General Section

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The Academisation and Europeanisation of Midwifery Training in Germany, Austria and Switzerland

Tim Migura

Abstract *The overall aim of the study is to examine the influence of EU steering instruments on national VET structures. Using the example of midwifery training it is to be determined whether and to what extent Directive 2005/36/EC leads to an increased academisation of VET systems. A comparative analysis is made of the extent to which the countries of Germany, Austria and Switzerland have adapted their legal requirements for midwifery training to the demand of the EU Directive over the periods 2002 and 2022. Neo-institutionalism serves as the theoretical framework. With regard to midwifery training the results suggest convergences between the countries Germany, Austria and Switzerland on the one hand and convergences between the region of Germany, Austria and Switzerland and the EU Directive 2005/36/EC on the other hand. In addition to the purely formal requirements Directive 2005/36/EC also conveys institutional myths because although the Directive does not explicitly call for the academisation of midwifery training this will be academised in the countries of Germany, Austria, and Switzerland by 2022.*

Title *The Academisation and Europeanisation of Midwifery Training in Germany, Austria and Switzerland*

Keywords *midwifery, europeanisation, academisation, European Union, legislation*

1 Introduction

Midwifery training in Germany is facing a transition phase. Until 2023 midwifery training was structurally located primarily at vocational schools (Plappert, Graf, Simoes, Schönhardt & Abele, 2019, pp. 854–855). However, this is changing as midwifery training in Germany will be fully academised by 2023. This means it will only be offered at

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academic higher education institutions and initially in the form of bachelor's degree programs. According to the German government the keystone for this was laid by EU Directive 2005/36/EC after amendment by Directive 2013/55/EU which sets uniform minimum standards in midwifery training in all countries of the European Union (EU), the European Economic Area (EEA), and Switzerland in order to enable automatic recognition of professional qualifications between these countries (Deutscher Bundestag, 2018, p. 9).

However, this form of Europeanisation is not without criticism. The German Medical Association (2019, p. 3), as an example, fears that the academisation of midwives will lead to dwindling areas of action that were previously the sole preserve of physicians. The German Midwives Association (2019, pp. 4–6) welcomes the decision and emphasises an improved attractiveness of the training and a more autonomous position of midwives in the professional field of action on the other hand.

From the perspective of the vocational and business education the overarching goal is to highlight the influence that EU legal norms have on the design of the training structures of the member states. The relevance is illustrated by the fact that both the import of promising policy programs in Western states (Schneider & Janning, 2006, p. 220) and the indirect influence of the EU on actually sovereignty-preserved policy areas of the member states have increased (Bohlinger, 2014, pp. 18–19). In order to be able to understand to what extent this applies to vocational training the implementation of Directive 2005/36/EC in relation to midwifery training is presented as an exemplary case.

Furthermore, the aim of the paper is to consider the motivations of the academisation of the midwifery profession as the German government attributes the change from vocational schools to university-level institutions to Directive 2005/36/EC although its wording does not call for academisation (Deutscher Bundestag, 2018, p. 9). Thus, it is obvious that beyond the formal requirements of the directive there are influences and motives that determine a full academisation of midwifery education. For this reason, the following question will be addressed in this article: To what extent has the EU Directive 2005/36/EC led to an academisation of midwifery training in Germany, Austria and Switzerland?

First, the legal and theoretical background is presented (section 2). This is followed by comments on the methodology (section 3) and descriptions of the training structures in Germany, Austria and Switzerland (section 4). These results are then summarised and discussed in section 5. The paper closes with a conclusion (section 6).

2 Background

Directive 2005/36/EC of the European Parliament and of the Council on the recognition of professional qualifications was adopted on 07.09.2005 and entered into force on 20.10.2005 (Stumpf, 2006, p. 104). 2005/36/EC applies in all countries of the EU, the EEA and Switzerland as well as guarantees the free movement of workers and regulates their freedom to provide services and freedom of establishment within the EU (Art. 1–2, 2005/36/EC in the version of 07.09.2005; Igl, 2020, p. 342). This directive was amended on 20.11.2013 by Directive 2013/55/EU. Within the scope of this amendment special at-

tention was paid to the health care professions which include for example physicians, pharmacists and nurses as well as midwives (Igl & Ludwig, 2014, pp. 214–215).

For Germany, this resulted in the need to amend the previously applicable Midwifery Act (HebG[G]) of 1987 including midwifery training through the Midwifery Reform Act (HebRefG) as it no longer met the minimum requirements (Igl, 2020, p. 342). In this sense, in Germany the introduction of the new midwifery law based on Directive 2005/36/EC after amendment by 2013/55/EU is associated with a presumably obvious academisation of midwifery education although this does not formally appear in the Directive (Bovermann, 2020, p. 124; Graf et al., 2020, pp. 1008–1009; Igl, 2020, p. 342). Nevertheless, indications can be isolated that speak for a preference of the university-based training location for midwifery training. These include the stronger focus on science work in training mentioned in the guideline and an increase in the entry requirements from ten general education school years to twelve school years at a general education school as an example (Igl, 2020, p. 344). Also, a possible representation of educational records through the ECTS gives an indication that higher education is the focus of consideration.

In the course of academisation developments in the EU publications have emerged that surveyed the educational structures of midwifery education (e.g. Ordre des sages-femmes, 2010; Luyben, Wijnen, Oblasser, Perrenoud & Gross, 2013; Vermeulen et al., 2019). A study by Vermeulen et al. (2019) examined the degrees by which midwives complete their education in their respective countries. In 19 countries in the European region midwifery training concluded with a bachelor's degree (as of 2019: e.g. Austria, Belgium, Switzerland; Vermeulen et al., 2019, p. 4). Seven countries in the European area required a master's degree for completed midwifery training (as of 2019: e.g. France, Norway, Spain; Vermeulen et al., 2019, p. 4). Furthermore, in Europe there were four countries in which the majority of midwifery education graduated with a diploma (as of 2019: Croatia, Estonia, Luxembourg, Germany; Vermeulen et al., 2019, p. 4). These data provide initial indications that although the first unified structures within the EU can be seen by 2019 it is not yet possible to speak of an EU-wide unified training structure due to the heterogeneity of training structures that continues to stand out.

2.1 Legal context

EU directives are addressed exclusively to the member states and must be implemented by them in their national law within a specified period (Ruffert, Grischek & Schramm, 2020, p. 415). The member states have a certain amount of flexibility in terms of the form and means of implementation so that national needs and unique characteristics can be taken into account in the implementation. Therefore, the Directive is considered a more sovereignty-friendly instrument of Union law (Ruffert, Grischek & Schramm, 2020, p. 415). However, when it comes to implementation, the requirement of effective implementation applies according to which states must choose a remedy that ensures the practical effectiveness of the law (Ruffert, Grischek & Schramm, 2020, p. 415; Lorenzen, 2021, p. 747).

Since the boundaries of vocational education and training cannot always be clearly distinguished from the occupational field and it is embedded in economic and cultural contexts (Baethge, 2006, pp. 27–28) the EU has the opportunity to influence or even indi-

rectly steer the policy field of vocational education and training which actually falls under the sovereignty of the EU member states (Bohlinger, 2014, pp. 18–19). Baethge (2006, p. 27) emphasizes that the national, economic and cultural embedding of vocational education and training is a major factor hindering EU-wide harmonisation which is why the Europeanisation of vocational education and training must be viewed critically.

The member states have the possibility to adapt a guideline within the framework of the national structures but if this does not correspond to the cultural, political or economic basic structures there is the risk that the EU member states get into the dilemma of preserving the national identity and sovereignty on the one hand, but, on the other hand to meet the guidelines of the EU. In this respect, a deconstruction of national structures due to structural reforms on the part of the EU are occasionally evaluated negatively (Münk, 2010, pp. 190–191).

Directive 2005/36/EC guarantees the free movement of workers and regulates their freedom to provide services and freedom of establishment within the EU (Art. 1–2, 2005/36/EC in the version of 07.09.2005; Igl, 2020, p. 342). The decisions of the Lisbon Strategy are used as a basis so that the directive should make the EU more economically competitive (justification 2, 2005/36/EC in the version of 07.09.2005). Employees are to be given the opportunity to pursue an independent or dependent occupation in any EU country through EU-wide recognition of their professional qualifications provided that the activities are comparable (Art. 1, Art. 4, II, 2005/36/EC in the version of 07.09.2005). However, within the framework of this directive the regulations only apply to regulated professions (e.g. pharmacists, architects, midwives; cf. Stumpf, 2006, pp. 104–105; Deutscher Bundestag, 2019, pp. 4–15). The recognition of the foreign professional qualification has the implication that employees are permitted to practice the profession abroad under the same conditions as those who have acquired the professional qualification in the country of destination (cf. Art. 13, I, 2005/36/EC in the version of 07.09.2005).

On 20.11.2013 the EU Directive 2013/55/EU was issued. This amends the basic Directive 2005/36/EC (Igl & Ludwig, 2014, p. 214). The changes in Directive 2013/55/EU mainly concern the minimum requirements and entry requirements for midwifery training. The member states have been instructed to transpose these amendments into national law by 18.01.2020 (cf. Art. 3, II, 2013/55/EU).

Concerning the profession of midwifery, the Directive defines training standards according to which the training of midwives in the addressed countries should be designed. A qualification as a midwife can be obtained on the one hand by a basic three-year training after a twelve-year general school education and on the other hand by a further qualification of at least 18 months following a training as a nurse.

In order for these qualifications to be automatically recognised within the EU further criteria must be met which, at the structural level, relate primarily to the duration of training and the theory-practice ratio. This results in three training options for automatic recognition since previously qualified nurses with at least one year of relevant professional experience only need to have 18 months of midwifery training. For nurses without relevant work experience two years of midwifery training are required (cf. Table 1).

Table 1: Training options for automatic recognition in relation to 2005/36/EC (cf. Art. 40, I-II, Art. 41, 2005/36/EC in the version of 07.09.2005)

Option	Criteria	Guidance of the Directive 2005/36/EC from 10.12.2021
I	Type	Full-time
	Duration of training	At least 3 years with 4.600 h
	Theory-practice ratio	Theory and practice are required with a minimum of 1.533 hours of practice
	Access requirements	12 years of general school education
II	Type	Full-time
	Duration of training	At least 2 years with 3.600 h
	Theory-practice ratio	Not specified
	Access requirements	Qualification as a nurse in accordance with Annex 5.2.2 of Directive 2005/36/EC
III	Type	Full-time
	Duration of training	At least 18 months with 3.000 h
	Theory-practice ratio	Not specified
	Access requirements	Qualification as a nurse in accordance with Annex 5.2.2 of Directive 2005/36/EC and one year of relevant professional experience

2.2 Theoretical Framework

The theoretical framework for the study is the organisational neo-institutionalism. Representatives of neo-institutionalism assume that institution-based organisational patterns do not emerge for reasons of pure efficiency (Meyer & Rowan, 1977, pp. 352–355; Senge, 2011, pp. 117–118). Rather, contrary to the principles of purely functional organisational theories, organisations gain their legitimacy by adopting and reflecting normative, traditional, and socially expected organisational patterns (Meyer & Rowan, 1977, p. 349). As soon as organisations do not conform to these expected patterns, they risk being denied support or resources (Meyer & Rowan, 1977, pp. 352–353; Sandhu, 2012, p. 76). These societal expectations of organisational systems emanate from superior institutions which are, thus, able to shape subordinate organisational structures (Koch & Schemmann, 2009b, p. 7; Sandhu, 2012, pp. 75–76). Accordingly, institutions are constructs that contain established norms and convey them through institutionalised rules (Koch, 2009, p. 111). Institutions are flexible constructs that can take many manifestations. They are superordinate patterns in which social actors such as individuals, organisations, companies, or countries are embedded (Koch & Schemmann, 2009b, p. 7). An institution is always characterised by the following elements: (1) institutions have an externality which means they exist on a different level than the social actors, (2) they are objective so that they apply to several social actors, (3) they incorporate a permanence which means they exist over a longer period of time, (4) they have a certain meaning-

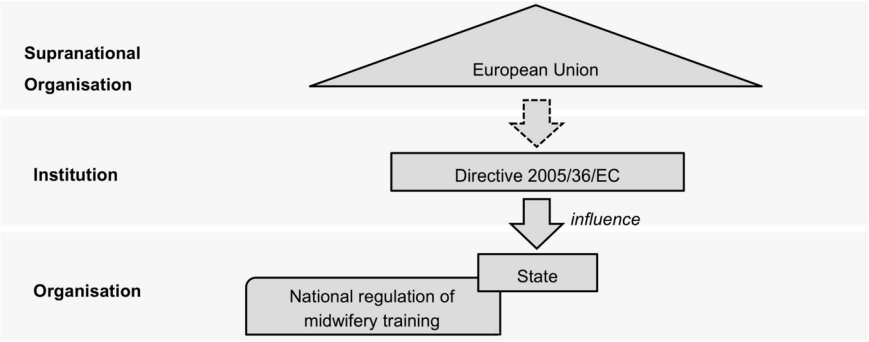
fulness so that they have a substantive meaning for the social actors and (5) they have a regularity so they influence social actors (Koch & Schemmann, 2009a, p. 22; 2009b, p. 7). Therefore, laws are an example of institutions (Koch & Schemmann, 2009a, p. 23). Organisations represent system networks in which coordinated and controlled activities take place (Meyer & Rowan, 2009, p. 28). In modern societies work increasingly takes place in complex networks and, thus, in highly institutionalised contexts (Meyer & Rowan, 2009, p. 28). This means that organisations locate themselves in fields that are shaped by socially expected concepts and patterns, both at the process and structural level (Meyer & Rowan, 2009, p. 28). In order to be accepted by society as a legitimate organisation, they must fulfil these expectations. This makes it clear that the system maintains itself because as soon as organisations implement these patterns and institutions, they become part of the collective expectation construct as they contribute to maintaining these expectations through participation and external impact, like a perpetual motion machine (Koch, 2009, p. 114; Koch & Schemmann, 2009b, pp. 8–10). The result of this pressure to conform is ultimately an isomorphism of organisational structures and processes (Koch & Schemmann, 2009a, p. 25; Meyer & Rowan, 2009, p. 36). This means that even at first glance different organisations have similar organisational patterns (Sandhu, 2012, p. 74). According to Meyer and Rowan (1977, pp. 341–342), institutional myths can also contribute to an alignment of organisations. The concept of institutional myths is based on the assumption that cause-and-effect relationships cannot always be reconstructed or verified. In relation to institutions or institutionalised rules these are mostly assumed causal relationships of organisational action which are analysed and 'debunked' as inaccurate, untrue, misleading or even irrational (Neuberger, 1995, pp. 1582–1583, quoted from Koch, 2009, p. 113). The origin of these myths usually lies in institutions and their institutional rules which serve as myths that describe various formal structures as rational means to achieve desired goals (Meyer & Rowan, 2009, p. 35). Despite their often lack of causality these myths determine societal expectations. Organisations adopt these institutions or institutionalised myths and, thus, the established expectations and norms to maintain their legitimacy.

Based on the aim to investigate the influence of the EU Directive 2005/36/EC on the national structures of midwifery education the addressed countries or the respective national regulatory structures of midwifery education, such as professional laws, represent the organisations. These are under the influence of the EU or, in the context of this study, the EU Directive 2005/36/EC so that the Directive itself represents an institution (cf. Figure 1). The Directive legitimises itself as an institution as it influences the countries from the outside starting from the EU as a supranational organisation (externality). Due to its radius of action across the EU, EEA and Switzerland the Directive fulfils the characteristic of objectivity (Igl, 2020, p. 342). The permanence of the Directive is due to the fact that it has been in place for over 15 years and will remain in its basic form in the future. The specific purpose of its application, namely the extension of the free movement of workers and the freedom to provide services and freedom of establishment gives Directive 2005/36/EC a sense of meaning. According to the characteristic of regularity the Directive is in accordance with as it is considered a binding legal act of the EU and can therefore exert an influence on the member states (Ruffert et al., 2020, p. 415). Whether

or to what extent the directive corresponds to an institutional myth is analysed in this paper.

A macro-institutional approach was chosen because this paper assumes that external institutions have an influence on organisations. Accordingly, the member states of the EU obtain their legitimacy through the isomorphism of formal structures by adapting their relevant legal acts for midwifery education to the institutional influence which would lead to harmonisation via the idea of conformity of the underlying theory.

Figure 1: Structural relationship of Directive 2005/36/EC in the context of the study



Based on the underlying European Union and its inherent interconnected character the EU directive as an institution implies the uniform values and beliefs of the EU (Ruffert, Grischek & Schramm, 2019, p. 975). The values and expectations of the EU and consequently the specifications of the legal norms derived from them form the legitimisation of the national educational structures at the EU level. When countries implement the requirements of Directive 2005/36/EC they legitimise themselves and get access to resources (e.g., funds or foreign labour) or support (e.g., bilateral cooperation).

It becomes clear that an investigation of the presented facts from the perspective of neo-institutionalism offers the possibility to make visible the subliminal influences of the institution and, consequently, of the supranational organisation. Furthermore, this offers the possibility to elaborate the indirect control of the EU which Bohlinger (2014, p. 7) has already highlighted using the exemplary case of Directive 2005/36/EC.

Deriving from the theoretical perspective of neo-institutionalism the central hypothesis is that Directive 2005/36/EC leads via myths to a unified academisation of the formal organisation of midwifery education. The link between the Directive and academisation is grounded in the fact that subtle indices within the Directive such as the reference back to ECTS or the increased focus on science work construct the myth that midwifery education would be most effective and productive if it were located at a university level. Consequently, EU member states only legitimise themselves if they provide midwifery education at the university level. Conversely, this means that member states that provide training at vocational schools or equivalent training institutions would find no or only limited recognition in the international mobility of midwives even if the rules for this had been formally observed. However, there is no direct instruction in the EU Directive

to shift midwifery training exclusively to a tertiary academic institution. Nevertheless, in academic discourse the full academisation of midwifery education is often attributed to Directive 2005/36/EC after amendment by 2013/55/EC (Bovermann, 2020, p. 124; Graf et al., 2020, pp. 1008–1009; Igl, 2020, p. 342).

3 Method

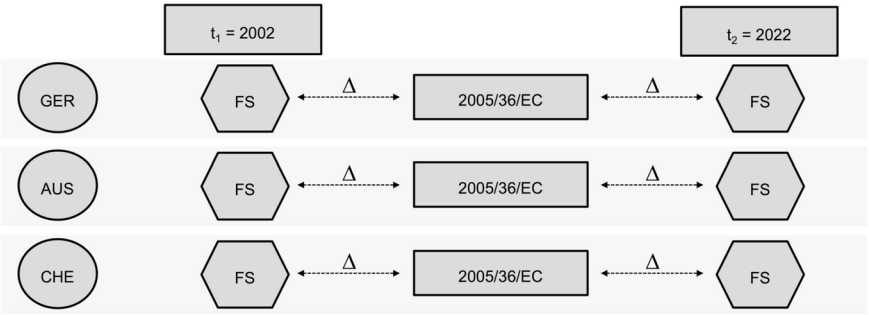
Based on the underlying interest in finding out to what extent Directive 2005/36/EC has influenced national statutory midwifery structures the focus of the study is on the influence of the institution and how it changes the formal structures of the nation states. This results in a top-down perspective with the EU's requirements as the starting point of the investigation (Radaelli, 2004, p. 4).

In order to be able to reconstruct whether and, if so, which changes the Directive 2005/36/EC entails on the national level and how the process of change proceeds the above-mentioned Directive in its current version of 10.12.2021 is set as an independent variable which is in line with the classical approaches of Europeanisation research (Eising, 2006, pp. 409–410). The counterpart and, thus, the dependent variable, is the national formal structure of midwifery training in the sense of the underlying research interest. In the context of this survey the operationalised element of formal structures are the country-specific regulations that determine the formal structure of midwifery training. Accordingly, primary sources that regulate midwifery training in a legally binding manner such as laws, guidelines, ordinances or similar national legal acts are examined. The specific study data of formal regulations are inductively generated from the requirements for automatic recognition of professional qualifications of the EU Directive 2005/36/EC (type, duration of training, theory-practice ratio, access requirements; cf. Table 1). Within the scope of this article only the basic training option (training option I) is examined for comprehensiveness reasons.

In order to better illustrate the process-related changes in national regulations due to the influence of EU Directive 2005/36/EC the formal structures before and after the influence of the Directive are surveyed by means of a vertical comparison. For this purpose, it will be analysed to what extent the national regulations differ from the EU Directive 2005/36/EC at the time before the Directive (t_1 = 2002) and at the time after the Directive (t_2 = 2022). The comparison of the two points in time allows statements to be made about the extent of the procedural change in the formal structure.

Eising (2006, pp. 409–410) refers to the problem that decisions of organisations are characterised by multi-causality so that in addition to the influence of the EU Directive also internal political or international effects have an impact on the education policy actors. Transferred to the above approach this would imply that individual national processes also have an impact on the national legal development. To reduce these confounding variables Europeanisation studies should be internationally comparative to gain greater control over generalising statements (Eising, 2006, p. 410). For this reason, the longitudinal data will be collected in three countries that are all under the influence of the EU Directive 2005/36/EC – Germany, Austria and Switzerland (cf. Figure 2).

Figure 2: Presentation of the methodological process (FS=Formal Structure; GER=Germany; AUS=Austria; CHE=Switzerland) (own illustration)



4 Results

The survey of the training structures in Germany, Austria and Switzerland is presented in short portraits. For this purpose, the structural design of the basic midwifery training (training option I) is presented at the time points t_1 and t_2 and finally placed in a summarising relationship to each other. For a more specific contextualisation, a brief historical context is given at the beginning of the country presentations.

4.1 Structure of midwifery training in Germany

Historical background

Midwives in Germany have been struggling to develop their profession since the 14th century although they have always been subject to restrictions. A change from the clerical dependence of the early period to the dependence on physicians in the Age of Enlightenment can be attributed to the medicalisation of obstetrics (Keyhan-Falsafi et al., 1999, p. 23). As a result, midwives were subject to the instructions of physicians and were excluded from academisation because, as women, they did not have free access to universities (Keyhan-Falsafi et al., 1999, p. 28–29). During the historical caesura of the time of National Socialism midwives experienced a strong increase in competence and a higher social, economic, and social status which, however, can be linked to solidarity with the political goals of the NS government and thus conformity with the ideological eugenics of the time (Mädrich & Nicolaus, 1999, p. 77). Nevertheless, according to Lisner (2006, p. 36) the amendments to the midwifery act (Reichshebammengesetz) of 21 December 1938 which defined an obligation for midwives to attend births a guaranteed minimum income and insurance cover represented the first steps towards professionalisation. The developments in the late 20th century illustrate the constant struggle of midwives for professional upgrading and academisation and the regular competition with the medical profession in line with history.

Training structures in 2002

The training was structurally divided into theoretical and practical courses as well as practical training. The place of learning for theoretical and practical courses was provided by state-approved midwifery schools which had to be affiliated with hospitals (§ 6, I, HebG[G] in the version of 30.04.2002). In addition to carrying out practical training the hospital also served as the funding body for the school (zu Sayn-Wittgenstein, 2007, p. 162). Midwifery schools were classified as health care schools in the systematics of the German vocational training landscape (Zoege, 2004, p. 63).

The regular basic full-time training for midwives lasted three years and included 4,600 hours (§ 1, I, HebAPrV; § 6, I, HebG[G] in the version of 30.04.2002). The ratio between theory and practice was 1,600 hours for practical and theoretical instruction and 3,000 hours for practical training making the training primarily practice-oriented (§ 1, I, HebAPrV). In addition to the general entry requirements applicants had to have a Secondary School Certificate or a comparable ten-year general school certificate (§ 7, HebAPrV). For applicants who had already successfully completed a two-year nursing preparatory school or vocational training relevant to the occupation, a lower secondary school certificate or a comparable school leaving certificate was sufficient for admission to training (§ 7, HebAPrV). Regardless of the general school education people with a completed qualification as a nursing assistant could enter midwifery training.

Training structures in 2022

The most far-reaching change in the new legislation is the transfer of midwifery education from vocational schools to institutions of higher education making educational success contingent on completion of a bachelor's degree (§ 5, II, 1, HebG[G] in the version of November 22, 2019). According to the current Midwifery Act a higher education institution is a state or state-recognised higher education institution or a state or state-recognised vocational academy that awards a bachelor's degree equivalent to the bachelor's degree awarded by higher education institutions (§ 2, VII, HebG[G] in the version of 22.11.2019). These include universities, universities of applied sciences and academies. In its basic structure the training represents a dual practice-integrated course of study in which practical work phases are integrated into the university-based course of study (§ 11, II, HebG[G] in the version of 22.11.2019; Wolter, 2016, pp. 40–41; BMBF, 2021, p. 35). The practical phases are largely located in the hospital, but 640 hours of practical training must also be completed in an ambulant setting (Appendix 2, HebStPrV).

The basic academic training is a full-time course of study and lasts a minimum of six and a maximum of eight semesters resulting in a training period of a minimum of three and a maximum of four years (§ 11, I, HebG[G] in the version of 22.11.2019). The duration of training is 4,600 hours of which at least 2,200 hours must correspond to the professional practical part and at least 2,200 hours to the university part (§ 11, II, HebG[G] in the version of 22.11.2019). The university part includes both theoretical and practical courses based on a modular university curriculum (§ 20, HebG[G] in the version of 22.11.2019). One possibility to enter the study program is the completion of a general school education of at least twelve years which corresponds to a subject-related university entrance qualification or the general university entrance qualification in Germany (§ 10, I, 1a, HebG[G] in the version of 22.11.2019). It should be noted, however, that with

a subject-related university entrance qualification there is no unrestricted admission to midwifery studies at a university (German Midwives Association, 2022).

Summary of the overall change in Germany

In Germany, extensive changes in the structure of midwifery education can be seen over the years. The shift from vocational training in vocational schools to academic training in universities resulted in far-reaching changes in responsibilities but also in the design of the training. The previously strong practical component of the training has been reduced so that the theory-practice ratio has an equal share even though practical lessons are to be present in the university part of the training, but these are not shown with a fixed proportion of hours. Overall the German case shows an approximation to the requirements of the EU Directive 2005/36/EC after amendment by 2013/55/EU which also concerns the criteria required for the automatic recognition of the professional qualification.

4.2 Structure of midwifery training in Austria

Historical background

The Austrian history of the development of midwifery shows that the training of midwives has been increasingly structured and standardised since the 18th century (Barth-Scalmani, 1994, p. 370). This initially took place through the establishment of a standardised national qualification basis for midwives in the 17th and 18th centuries, which then developed into a standardised institutionalisation and, building on this, a fixed legal basis. The need for high-quality training was always a priority but professionalisation was rarely promoted. This is attributable to the growing dependence on the medical profession since the 18th century (Barth-Scalmani, 1994, p. 365; Lehne et al., 2019, pp. 3–5). In more recent decades, however, there have been stronger developments that stem from international comparisons and can even be traced back to the EEC in the early 1990s, which led to the emergence of the first Europeanisation trends (König & Brumen, 2012, p. 126).

Training structures in 2002

The training of midwives took place at midwifery training academies (§ 23, II, HebG[A] in the version of 31.05.2002) which were assigned to the non-university tertiary sector and concluded with a diploma (§ 34, II, HebG[A] in the version of 31.05.2002; Lassnigg & Steiner, 2003, p. 53; BMBWK, 2004, p. 46; König & Brumen, 2012, pp. 126–127). These had to be in connection with a hospital which had to provide sufficient personnel and material resources as well as specialised departments so that the practical training could be carried out at this place of learning because a theory-practice link was required (§ 9, II, Heb-AV; § 25, I, HebG[A] in the version of 31.05.2002).

The basic full-time training for midwives lasted three years at time t_1 and provided 1,530 hours of theoretical instruction and 3,250 hours of practical training which resulted in a total of 4,780 hours (§ 8, I, § 9, I, Heb-AV; § 23, I, HebG[A] in the version of 31.05.2002). For access to this training option applicants had to pass the matriculation examination of a general secondary school or the matriculation and diploma examination at a vocational secondary school or an educational institution for kindergarden ped-

agogy or an educational institution for social pedagogy (§ 29, I, HebG[A] in the version of 31.05.2002). Usually the general secondary school could be completed after twelve years of schooling and the vocational secondary school after 13 years of schooling (Dorninger, Lauterbach & Neubert, 1996, p. 75; Schneeberger, 2003, p. 5).

Training structures in 2022

The training of midwives has been located at a university of applied sciences since 2005 and is structured in the form of a bachelor's degree program (§ 4, FH-Heb-AV; § 11, II, HebG[A] in the version of 16.11.2022). This provides the theoretical and practical training components (§ 3, II, FH-Heb-AV). In addition, midwifery students must complete internships in cooperating institutions. This takes place in hospitals or other institutions that can ensure the necessary personnel and material resources as well as an education that serves the educational goal (§ 3, III, FH-Heb- AV). Experienced and pedagogically suitable midwives provide practical support (§ 6, III, FH-Heb-AV).

The basic midwifery training at the university of applied sciences is a three-year bachelor's degree with a total of 4,600 hours (§ 2, Ia, FH-Heb-AV). The practical part must amount to at least one third of the total training time which corresponds to 1,533 hours (§ 2, Ia, FH-Heb-AV). There are no specific school entry requirements for midwifery. Applicants must have a university entrance qualification suitable for universities of applied sciences. In Austria, this can be done by a general university entrance qualification or by relevant professional qualifications (§ 4, IV, FHG). Usually the general university entrance qualification is obtained by passing the maturity examination at a general upper secondary school or by passing the maturity and diploma examination at a vocational upper secondary school which corresponds to twelve years of general schooling (Dorninger & Gramlinger, 2019, p. 58). Alternatively, a professional maturity examination can also be taken. By taking an external examination individuals can obtain a general higher education entrance qualification after completing initial vocational education and training (Dorninger & Gramlinger, 2019, p. 58).

Summary of the overall change in Austria

In Austria, an institutional change from academies to universities of applied sciences has taken place. Midwifery education remained at the tertiary level but changed from the non-academic to the academic sector. The total training period remained almost unchanged but the practical components of the highly practical training were reduced and the theoretical components increased accordingly. Overall this has brought the training structures closer to the requirements of EU Directive 2005/36/EC as amended by 2013/55/EU.

4.3 Structure of midwifery training in Switzerland

Although Switzerland is not a member of the EU a comparison is appropriate because through the Agreement on the Free Movement of Persons, Switzerland reached an agreement with the EU, according to which both parties agreed on the recognition of professional qualifications in 1999. On September 30, 2011, Switzerland signed the EU Directive 2005/36/EC thereby participating in the EU's common system for the recognition of

diplomas (Swiss Federal Council, 2011, n.p.). However, the adoption of the amending directive 2013/55/EU is still pending (Swiss Federal Council, 2019, p. 24). Preparatory efforts have been in progress since 2013 but so far there has been a lack of agreement between the EU and Switzerland on implementing legislation (Oesch, 2020, p. 95; Swiss Conference of Cantonal Ministers of Education, 2022, p. 31). However, the Swiss Federal Council emphasises that midwifery education is in line with the amending Directive 2013/55/EU despite the lack of legislation (Sommaruga & Casanova, 2015, p. 8777). Against this background, it seems even more significant to investigate the impact of EU Directive 2005/36/EC after amendment by 2013/55/EU on midwifery education in Switzerland although it is not formally recognised. The results can, thus, provide first insights into the informal Europeanisation developments in Switzerland and would underline the influence of the EU Directive beyond its official formal status.

Historical background

Overall, it can be seen that since the institutionalisation of midwifery training in Switzerland in the 18th century a dependency on physicians has been consolidated (Jenzer, 1966, p. 68). Development requests on the side of midwives have been implemented over time due to the need for higher qualifications but always in small steps limited and under protest from the majority of the medical profession (Zürcher, 1994, pp. 33–42; Schweizerischer Hebammenverband, 2019, p. 7). Until the 1970s standardised developments did not take place due to cantonal regulatory authority over midwifery training (Schweizerischer Hebammenverband, 2019, p. 13). The first public efforts to academise midwives emerged at the end of the 19th century and were implemented at the beginning of the 21st century (GDK, 2004a, p. 12; Oertle Bürki, 2009, p. 1716)

Training structures in 2002

Midwifery training in Switzerland experienced a period of change at the time of t_1. The reason for this was the educational reform of 1999 according to which midwifery education was to be raised to the tertiary level in the future. In the course of the educational reform many higher vocational schools were to be upgraded to universities of applied sciences and, thus, become institutions of higher academic education (Suter, Criblez, Spilimbergo & Lutz ,2020, p. 9). For midwives, it was not clearly clarified whether training should be offered in the future at a higher vocational school or at a university of applied sciences until 2002 (Bühl, 2004, p. 5). As a result, two different training models have emerged in Switzerland since 2002. In French-speaking Switzerland, training was increasingly provided at universities of applied sciences and in German-speaking Switzerland at higher vocational schools (Oertle Bürki & Plattner, 2003, p. 6; Bühl, 2004, p. 5). At the time of 2002 both the universities of applied sciences and the higher vocational schools belonged to the tertiary level (Suter et al., 2020, p. 9). In this regard, the higher vocational school was considered an independent part of the non-university tertiary sector and was assigned to higher vocational education at the time (Wettstein & Lauterbach, 1995, p. 27; Suter et al., 2020, pp. 9–10). The training concluded with a diploma.

Practical training was provided in the form of internships at external facilities. The school as well as the practical institution had to coordinate the training contents together (SRC, 2001, p. 27).

The basic midwifery training lasted three years with a training period of 4,620 hours (SRC, 2001, p. 25). It was possible to complete the training in part-time as long as the duration of the training was not shorter than in full-time training (SRC, 2001, p. 7). The proportion of school-based training had to correspond to at least one third and may not exceed half of the total training time. This resulted in a school-based training component of at least 1,540 hours and a maximum of 2,310 hours, or a practical training component of at least 2,310 hours and a maximum of 3,080 hours (SRC, 2001, p. 25). To be eligible for training students were required to have completed at least upper secondary education and to have sufficient knowledge of natural science and general education subjects (SRC, 2001, p. 43). Completion of upper secondary education could be achieved at the earliest via diploma middle schools after twelve years. Transitions via vocational school or higher secondary school were also possible (Wettstein & Lauterbach, 1995, pp. 25, 73; Oertle Bürki & Plattner, 2003, pp. 18, 97).

Training structures in 2022

In 2022 midwifery training in Switzerland is offered uniformly at universities of applied sciences. In 2004 the decision regarding this was made by the Swiss Conference of Cantonal Health Directors (GDK) (Oertle Bürki, 2009, p. 1716). To become a professional midwife a Bachelor of Science degree from a university of applied sciences is required (Art. 12, II, d, GesBG). The education should be practice-oriented and prepare students for professional activity through application-oriented research and practice-oriented studies (Art. 3, I, GesBG; Art. 26, I, HFKG). Specified practice locations are not defined.

Based on studies on health at Universities of Applied Sciences the training can be completed either full-time or part-time (GDK, 2004b, p. 3). With regard to the duration of training only a bachelor's degree program is prescribed. According to the ordinance by the Higher Education Council bachelor's degree programs in Switzerland should have a duration of 180 ECTS corresponding to a workload of 4,500 to 5,400 hours (Art. 3, II, Art. 4, I, a, Ordinance of the Higher Education Council on the Coordination of Teaching at Swiss Universities). The exact design including the practice linkage lies in the responsibility of the universities within the framework of the accreditation process.

The clinical-practical training components must be in accordance with the requirements of the relevant EU directives (cf. Appendix 4, Ordinance of the FDHA on the Accreditation of Study Programs under the GesBG). According to this the admission options are divided into area-specific and non-area-specific prerequisites. The area-specific previous education entitled to admission includes on the one hand the Swiss Federal Certificate of Proficiency (EFZ) in Health Care in conjunction with the Vocational Matura for Health and Social Services and on the other hand the Certificate of Secondary Education in Health together with the Specialised Matura in Health (GDK, 2004b, p. 3). The non-area-specific qualifications include other Maturas (GDK, 2004b, p. 4). Applicants with non-area-specific previous education must complete additional modules (usually internships) which are determined by the universities (GDK, 2004b, pp. 3–4). Overall, however, the entrance requirements presuppose a general school education of usually 12 to 13 years.

Summary of the overall change in Switzerland

In the case of Switzerland, it appears that training at the higher vocational colleges which are assigned to higher vocational education has been transferred to the universities of applied sciences in the analysed period so that a uniform institution is now responsible throughout Switzerland. In Switzerland, there has been a change from a very practically oriented midwifery education to a stronger theory orientation, too. With regard to the division of the theory-practice relationship explicit reference is even made to the applicable EU directives. Accordingly, the case of Switzerland also shows an approximation to the EU Directive 2005/36/EC after amendment by 2013/55/EU.

5 Discussion of results

The results of the country portraits show that the developments in all countries considered indicate an influence of the EU Directive 2005/36/EC with regard to midwifery training. Remarkably, the countries Austria and Switzerland had already academicised midwifery education before the introduction of Directive 2005/36/EC. However, the design of academisation in the respective education systems was individual at the time of 2002. The midwifery academies in Austria and the higher vocational schools in Switzerland were classified as higher vocational education (BMBWK, 2004, p. 46; Suter et al., 2020, pp. 8–9f.). In the discourses, however, the uniform view emerged that midwifery training should be relocated to universities of applied sciences, as these are regarded as a higher-quality place of learning due to their assignment to the higher academic sector. This is associated with the upgrading of training (König & Brumen, 2012, p. 128; Haberfellner & Sturm, 2014, p. 25; Sottas, 2021, p. 153). A similar argumentation occurred in Germany. The discourse is characterised in many ways by the fact that Universities of Applied Sciences could transmit higher-quality evidence-based competencies in contrast to vocational colleges. As an example, Igl (2020, p. 344) states that in principle no detailed knowledge of science can be taught in a vocational school education. This assertion is supported by the German Qualifications Framework (GQF). The training at a vocational school in the healthcare sector imparts competencies of GQF level 4 and bachelor's degrees are located at GQF level 6 (cf. Bund-Länder-Koordinierungsstelle für den DQR, 2022, p. 3).[1] According to the GQF, the upgrading goes hand in hand with a better understanding of science (AK DQR, 2011, pp. 6–7). Furthermore, the framework agreements on vocational schools do not explicitly mention the teaching of scientific competencies (Standing Conference of the Ministers of Education and Cultural Affairs, 2022).

Beyond the scientific requirements, academisation in all of the countries presented was linked to an increasingly complex professional practice. It remains to be seen whether the teaching of the necessary scientific and action-oriented competencies is unavoidably and exclusively tied to the higher academic education sector, or, whether an adjustment of the profile of the vocational schools would be a possibility for adaptation.

1 The levels of the German Qualifications Framework and the European Qualifications Framework correspond.

All in all, the myth that is transported by the Directive 2005/36/EC clarifies at this point. It is the myth that academic institutions of higher education are considered to be superior to (higher) vocational education. Whether the directive merely reflects the myth or contributes to it cannot be conclusively assessed at this point. It can only be said that this myth is inherent in the directive.

It is remarkable that midwifery education, with the exception of Germany at time t_1, is already located at the tertiary level. Only in Germany was education still at secondary level. At time t_2, the academic learning locations are shown to have aligned. In all cases midwifery education takes place at universities of applied sciences, in Germany it is also possible to study at universities and academies (cf. Table 2).

Table 2: Levels and institutions of midwifery training in Germany, Austria and Switzerland

Country	Localisation of midwifery training	
	2002	2022
GER	Upper secondary level: Vocational schools	Tertiary level: Universities of Applied Sciences, Universities, Academies
AUS	Tertiary level: Academies	Tertiary level: Universities of Applied Sciences
CHE	Tertiary level: Colleges of Higher Education/ Universities of Applied Sciences	Tertiary level: Universities of Applied Sciences

After the implementation of the Directive 2005/36/EC the types institutions in which midwifery education is located are converging with the universities of applied sciences in the region under study. As a result of the change in institutions and the implementation of the Bologna Process certificates of qualification have also been aligned. Instead of diplomas graduates of basic midwifery education obtain a bachelor's degree. The fact that the countries Austria and Switzerland have already started the academisation of the midwifery profession before Directive 2005/36/EC and have aligned the structure to the bachelor/master system suggests that the Bologna Process is a fundamental influence on the academisation of the midwifery profession. For Austria and Switzerland, therefore, Directive 2005/36/EC cannot be set as a cause for the academisation of midwifery education. Nevertheless, it can be seen that the structural design of the study program has closely aligned with the criteria for automatic recognition of professions (type, duration of training, theory-practice ratio, access requirements; cf. Table 1). It can be deduced from this that Directive 2005/36/EC is leading to a progressive convergence and shaping of the content of the study structure requirements in countries where academisation of midwifery education has already taken place. The case of Germany shows signs that Directive 2005/36/EC has the efficacy to support academisation in a country in which it is not yet present at that time.

The reasons given in the discourse in the course of the academisation process also show parallels. In this regard, both national and international motivations for academisation of midwifery education are listed in all countries. Among the international arguments listed in all countries are international comparison with other countries and the lack of recognition of professional qualifications abroad if the training is not academized (Oertle Bürki, 2009, p. 1715; König & Brumen, 2012, p. 126; Mériaux-Kratochvila, 2021, p. 142). In addition, academisation is expected to internationalise the profession not only in terms of mobility but also in terms of dialogue (Jakobi & Martens, 2007, p. 251; Butz et al., 2017, p. 7). Among the national motivations in all countries increasingly complex fields of activity and competence demands of midwives, the promotion of professional development, a higher professional autonomy of action, as well as an increase in the attractiveness of the training are mentioned (Oertle Bürki, 2009, p. 1716; Sommaruga & Casanova, 2015, p. 8723; Gerholz & Walkenhorst, 2016, pp. 74–75; Euler & Severing, 2017, p. 34; Walkenhorst, 2022, p. 52).

Due to the argument of upgrading the training by shifting from vocational education to academic education and the international argument of connectivity and the legitimation by the present EU directive, the structures of midwifery training have converged between the countries Germany, Austria and Switzerland. Although the directive does not explicitly call for academisation the directive is in many respects perceived in the discourse as a decisive reason for creating, consolidating or expanding academisation (König & Brumen, 2012, p. 128; Haberfellner & Sturm, 2014, p. 25; Sottas, 2021, p. 153).

6 Conclusion

The aim of the study was to identify the influence of EU legal standards on the design of the vocational training organisations of the member states. For this purpose, the implementation of Directive 2005/36/EC in relation to midwifery education was analysed in the countries of Germany, Austria and Switzerland. In this regard, the following research question was addressed: To what extent has the EU Directive 2005/36/EC led to an academisation of midwifery training in Germany, Austria and Switzerland?

In answering the research question the convergences uncovered show that the national midwifery training structures have not only aligned themselves with the EU Directive along the Directive-specific examination criteria. It was also shown that the isomorphism in terms of uniform academisation goes beyond the formal requirements of the EU. Consequently, it can be seen that the EU Directive 2005/36/EC has the potential to shape midwifery education in the countries under consideration and to bring about or consolidate academisation even though it does not formally prescribe academisation. In addition to the obvious Europeanisation processes subliminal driving forces of the Europeanisation of training structures become apparent which blur the sovereign borders of the countries.

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