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Migrant labour in the automotive industry: A literature review

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Abstract

The automotive industry has a significant role not only in global and national economies but also in the formation of a nation's labour force, by (re)training workers. While historically the automobile industry has attracted mostly low-skilled migrants for the assembly lines, in the present times, an additional need for highly skilled and often STEM-educated migrant workers has been noted. By performing a systematic literature review, the present study explored the relationships between migrant labour and the car industry sector outlined in the research literature. The study followed a thematic analysis and reached findings that were summarised in four themes. Firstly, two profiles of migrant workers were identified, corresponding to what is often discussed as low- and highly skilled workers. Secondly, the working conditions for the migrant labour force were prominent in the literature, while they varied based on the profile of the migrant worker. Thirdly, from a historical perspective, strikes were shown to affect migrants' working conditions and rights, while fourthly, the business practice of offshoring was shown to influence migrant workforce conditions and status. In conclusion, the complexity of the issue under research, the scarcity of the relevant literature, and the contextuality of the cases presented have acted as limitations of this literature review. Further research on the topic is needed since the car industry is a core player in national economies, and, hence, its influence on migration practices and policies should not be underestimated.

Keywords: automotive, automobile industry, labour force, migrant worker, vocational education and training

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Introduction

Portrayed as the industry of industries (Drucker, 1992), the car industry has a significant role in global and national economies, not only because of its massive size but also because of its connections to other industries (Dicken, 2003), being a key player in the trade and economy of several countries around the world. Originating in France and Germany, its activity has reached the United States, Japan, and the Republic of Korea, while the more recent emergence of China, especially regarding electric vehicles, cannot be overlooked. Expanding in services more than vehicle production, the car automotive industry became synonymous with the industrial development of the 20th century (Papatheodouru & Harris, 2017). In terms of its contribution to global economic growth, the automotive industry's annual turnover is of equal value to the world's sixth-largest economy (Masoumi et al., 2019). The car industry is perceived as capital-intensive, but it drives research and innovation, also creating job positions and investment. The automotive industry plays a big role in meeting sector specific goals relating to sustainable development, for example, the introduction of electric vehicles aiming to reduce fossil fuel dependence; the adoption of circular economy principles (e.g., recycling and reusing materials); the development of renewable energy sources; or ensuring accurately tracked and reported sustainability metrics. Because of its size, the automotive industry has been perceived as a key actor also in achieving several other Sustainable Development Goals for 2030, including sustainable economic growth, decent work, quality education, and sustainable cities (Lenort et al., 2023).

Besides the economic and technological contribution, the automotive industry's role in education and training is indisputable. Automobile companies have been responsible for the vocational development of the workers, with (technical) training provided in-house, often in collaboration with vocational education and training institutions, and/or government agencies (Laseinde & Kanakana, 2017). As the sector is currently undergoing transformation, the car industry should revise practices of recruiting and (re)training workers, investing in the competence of a labour force that can use new technologies to improve productivity and sustainability, as according to the International Labour Organization (ILO) (2020) the capabilities of the workforce in the car industry are decisive for its future.

From a historical perspective, the automotive industry has been highly resilient, recovering from financial recessions and contributing to Gross Domestic Product (GDP) and global employment. Since the beginning of mass automobile production in the United States until today, the car industry has employed large numbers of migrants. From 2012 to 2017, the percentage of migrants as part of all automotive industry workers increased by around 8–10% in the United States (US). The automobile industry has historically attracted low-

skilled workers for the assembly lines, and fewer skilled workers for specialised tasks. Nevertheless, in the present times, there is a need for highly skilled and often science, technology, engineering, and mathematics (STEM)-educated migrant workers. Recruiting a (highly skilled) migrant workforce is beneficial to the car industry; yet it causes a permanent loss of the national workforce, often qualified nationals (ILO, 2020). On the other hand, migrant workers recruited for low-skilled jobs have raised concerns about their work conditions, which research literature has shown to be bad (e.g., Lau, 2012; Leach, 2008; Schmitz, 2019).

According to ILO (2020), migration policies are continuously evolving, due to a growing reliance on temporary labour migration programmes rather than permanent migration. More specifically, a tendency towards temporary foreign worker schemes has been identified, with these schemes requiring stricter conditions for the admission of less skilled workers compared to highly skilled workers. These trends create a rather demanding environment for migrant workers, putting an increasing emphasis on skills recognition and meaningful employment. In these terms, validation of prior experience and recognition of skills becomes an issue of transnational collaboration.

Summarising the car industry as a sector that is an important contributor to economic growth, a common provider of training, and an employer of a migrant workforce, researching further the relationships between this sector and migrant labour can illuminate the potential lying within it and the challenges ahead. Hence, the present study explores the relationships between migrant labour and the car industry sector as they are outlined in the research literature. Nevertheless, it is important to note that the literature considering both topics, meaning the car industry and migration (or migrant labour), is scarce.

For purposes of clarity, the following concepts are defined briefly. Firstly, *automotive* refers to all parts and accessories of a vehicle, *automobile* refers to the actual vehicle, while *car* is the commonly used word for a vehicle, usually for private use. Regarding *industry*, *automotive, automobile, car industry* the three terms are used interchangeably in the present study. Automotive/automobile/ car industry refers to companies in all vehicle production areas. Secondly, *migrant* is an individual that moves from one place to another with the aim of improving their life (and working) conditions (Oxford Dictionary, 2023). In the present study, this term is used in reference to both international and national migration.

Structural changes in the production processes of the automotive industry

The car industry has been undergoing a constant change, driven both by its success and the transnational nature it has developed over time. With a vision that high volumes of standardised parts would reduce product costs and create

jobs, in the United States Ford's mass production system introduced inter-changeable standardised parts, as well as the moving assembly line in the 1920s (Womack et al., 1990). At the same time, a process of vertical integration (Womack et al., 1990) would complete the idea of mass production by introducing single-function machines that workers were trained to use. The core idea of these processes was the simplification of production and workflow without interruptions. Since tasks in the process were allocated to different workers, faults were to be identified at the end of the assembly. Efficiency in smaller tasks was increased but the workers were de-skilled (Piore & Sabel, 1984).

Mass production factories generate thousands of jobs. The influx of workers seeking employment in urban centres contributed to the rapid pace of urbanisation. People started connecting their own well-being with the economic flourishing of the nation, which was heavily dependent on the development of these mass production factories (Reich, 1992). However, in the 1910s working conditions were tough leading to the rise of trade unions and strikes as a means of worker protection (Anstey, 2006). With time and around 1940s, strikes were replaced by collective bargaining, which introduced a set of rules to regulate conflicts – a process that disrupted production less than strikes (Anstey, 2006).

The way that production was organised has varied around the world and at different times. In Germany, companies in the automobile industry, like Bavarian Motor Works (BMW) and Daimler Benz, took off in the 1990s. German workers enjoyed better access to information and a higher influence on company matters compared to their US counterparts. The emergence of the Japanese car industry became an additional threat to the dominance of American companies in car production and trade (Anstey, 2006). Toyota introduced a lean production process, aiming at zero defects in production. Together with quality and quality control, Toyota developed a humanisation element in their vision, which was translated into an effort to increase workers' motivation and morale, including by supporting their creativity (Monden, 1983). The Japanese approach was based on a lifetime employment perspective, where the employee is re-trained constantly and remains committed to the company (Japan Institute for Labour Policy and Training, 2004). Finally, the Swedish car industry, including Saab and Volvo, focused on multi-skilled employees who participated in production. Other elements included horizontal labour division, coherent instead of fragmented tasks, stationary instead of moving assembly lines, and flat hierarchies. While this approach increased work efficiency, a return to traditional production modes soon occurred (Berggren, 1993).

The trends that followed were the result of the mutation of these national automotive vehicle production units into transnational corporations. These reached new markets and often bought off their competitors. With the saturation of markets in developed economies, the car manufacturers turned their attention

to developing ones, for example, Brazil, Mexico, India, and China. By 2000 the car industry had moved up to 60% of its production abroad (Dicken, 2003) due to the possibility of thereby earning higher profits. In this intense migration of services, the United Nations and ILO have tried to secure the working rights of the workers in the car industry (Anstey, 2006). While it is interesting to consider how the development of Eastern automobile companies has affected the respective countries' labour, it is equally interesting to examine what this migration of services has meant for the Western labour force and the coexistence of the two.

Methodology

The selection of literature for the review in the present study has not been systematic, as the scarcity of sources and the multiple issues of homonymy did not allow it. The review is rather narrative. The initial search for literature was conducted in the EBSCOhost database[1], which was considered relevant for the topic and broad, since the topic can spread across different disciplines. The keywords searched for included:

- car industry or automobile industry or automotive industry
- migration or immigration or emigration or refugee

At this initial stage, issues of homonymy became relevant. *Migration* is used to describe the movement of individuals or groups, but also *(automated) migration* refers to the process of data movement between information repositories. The second meaning of migration is often encountered in relation to the automobile industry. To deal with this particularity, the next search included instead the keywords:

- car industry or automobile industry or automotive industry
- migrants or immigrants

Other criteria for the search included a time limit between 2000 and 2023 and the inclusion of peer-reviewed literature. As the literature suggests, by 2000 the car industry had moved up to 60% of its production abroad (Dicken, 2003), leading to a migration of services that has possibly affected the type of migration movement and relationships between countries. In order to ensure that these relationships will be included and for reasons of feasibility the time period of 2000–2023 was selected. Peer-reviewed research was selected to ensure credibility and exclude texts with specific political directions. As regards language, there was no limitation at this stage.

This search resulted in 46 texts that were evaluated by abstract relevance. Out of these, 36 were considered for full-text reading. All 36 texts were journal articles. The 36 texts were reduced to 13 based on text relevance. In both cases,

judging abstract and text relevance, texts that did not refer both to migration (e.g., migration policies, integration strategies, immigrant workers or employees) and the automotive industry (referred to as automotive industry or referred to specific companies) were discarded (see Figure 1). Nevertheless, as several of these texts referred to one of the two topics, citation tracking was performed, without any additional results. The final body of literature used for this study includes 13 texts in English, Spanish, and French, which the researchers could read, hence language was not used as an inclusion criterion. These texts represent research from and about Canada, China, El Salvador, France, Germany, Mexico, Sweden, Turkey, and the US. The studies included represent historical research, focusing mostly on strikes, but also empirical studies focusing on different aspects of migrant workers' lives.

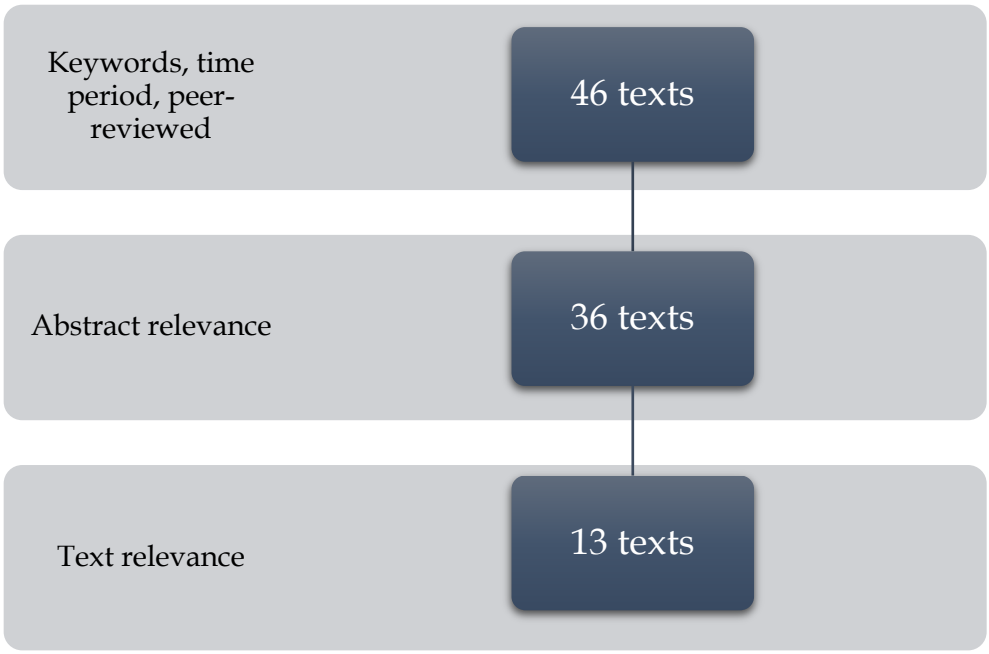

Figure 1. Inclusion criteria in different search phases.

Summarising the inclusion criteria for this search after the selection of keywords, these included the period between 2000 and 2023, peer-reviewed scientific articles, abstract relevance and text relevance.

Analysis

The first reading of the texts was performed on a country basis to allow a better understanding of the various contexts present. The second reading that led to the

main analysis focused on themes. The analysis followed the steps for thematic analysis as described by Braun and Clarke (2021).
Firstly, the researchers familiarised themselves with the material. Secondly, they created initial codes followed by a first round of coding. To ensure consistency in coding (Saldaña, 2009), there was a second coding round, resulting in revising the initial codes. Fourthly, themes were created based on codes, and fifthly, themes were modified based on the research aim. Finally, the themes were investigated with reference to their relations.

Limitations

The main limitation of the study lies in the issue of homonymy of the term *migrant* and *migration*. As mentioned above, migration refers to both the movement of individuals and groups as well as the transfer of information in a computerised fashion (automated migration). Moreover, *migrant* can refer to an individual changing their country of residence, but in the literature selected for this study, it also refers to an individual moving from their broader areas of residence to a new place. That broader area refers to provinces (e.g., the cases of China or Mexico). This limitation combined with the scarcity of research on the topic has rendered a systematic approach difficult since the coherence of the systematic method would be hard to evaluate.

Findings

This section presents the findings of the literature review, summarised under the following themes: the profile of the migrant worker (Profiles 1 and 2), working conditions, strikes, and finally offshoring and transnational migration (see Figure 2).

As Figure 2 indicates, the themes cover the micro (individuals and work-places), the meso (national), and the macro level (international). More specifically, several of the research studies selected for this review focused on the characteristics of migrant workers and their interaction with the workplaces, often addressing questions of integration in the workplaces. On the meso level, the literature addressed company actions and regulations with reference to migrant workers and migration in general, often in relationship to national legislation. On the macro level, the literature discussed the phenomena of offshoring and transnational migration, both as international overarching phenomena, but also in relation to individual workers and companies. As Figure 2 shows, while each study of the literature selected would focus on one of the levels, the influence between them was also acknowledged.

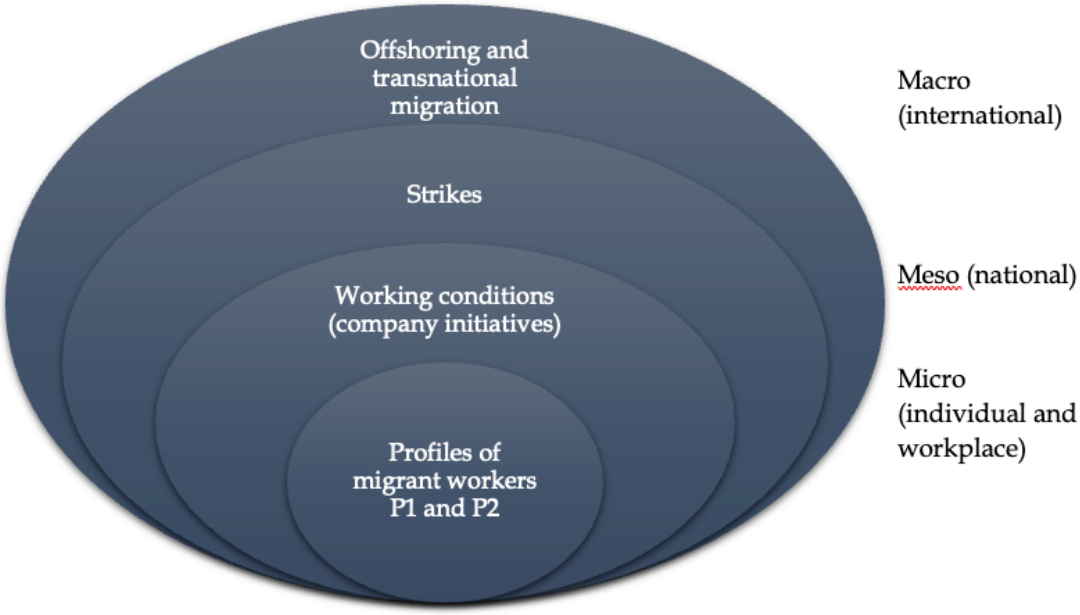

Figure 2. Themes and their relationships.

The profile of the migrant worker

The profile of the migrant worker in the car industry emerges as a theme in the material, although it is rarely the main focus of the studies. There are two profiles identified, namely the low-skilled and the highly skilled worker. However, throughout the material there are several sub-profiles as well. The factors that affect their outline are summarised as skills/qualifications, level of company position, country of origin (and movement to a new country/province), cultural and language capital, and residency status (e.g., refugees). Many of these factors are interrelated, while they also interact before, during and after the appointment of the individual in a job position.

Profile 1

Beginning with low-skilled migrant workers and employees, it can be argued that individuals and groups under this profile are in a precarious state (Akhtar, 2015) and have a lower status than their co-workers in the workplace. According to Leach (2008), these employees take up multiple tasks and exhibit high determination as well as high performance. They often work overtime to build up the image of a 'hard' worker. This image is expected to secure future employment for themselves and for others with similar profiles, usually other migrants, friends and/or family members. These individuals often have low

language skills in the dominant language of their host country, especially in comparison to employees of local origin (native speakers).

In the French context, around 1983–1984, the migrant employees of Profile 1 were described as low paid and as the least qualified fraction of the workforce, while their participation in the automotive industry at that time reached 52.3% of the workforce. Their profile was characterised as poorly qualified, mostly males, and in need of further training due to low language skills in French. Around 73% of them had more than 10 years of seniority. During the strikes of 1983, this group was presented in the public discourse as ageing and unable to adapt to new job demands, although on average their age was less than 50 years old. Following the layoffs of 1983, this group of migrant employees demanded aid for relocation back to their countries, making their voices heard and asking for further rights (Gay, 2014).

Profile 2

Profile 2 describes the highly skilled and often qualified migrant employee who holds a position of medium or higher level in a company. A characteristic example of such migrants is Mexican engineer graduates who are recruited in the United States. According to Crossa Niell and Delgado Wise (2021), Mexican graduates holding bachelor's and master's degrees in engineering, often also with experience working in the *maquiladoras*[2], are recruited by head-hunters to work in the car industry in Detroit. This group comprises up to 71% men and specialises in STEM or engineering. The recruitment processes these candidates undergo are strict since they are recruited for knowledge-intensive roles. Crossa Niell and Delgado Wise (2021) argued that the innovation that takes place in the United States and the Western world should also be attributed to the workforce of migrant origin, like the highly skilled Mexican engineers mentioned in this study.

Within Profile 2 there is a special sub-category of highly skilled migrant employees that are labelled as re-migrants. Re-migrants are individuals who have lived abroad for some years, studying and/or working, and who return to their country of origin. While there can be re-migrants fitting Profile 1, in the material selected for this study, re-migrants are medium- or highly skilled. More specifically, in the case of Turkey–Germany, there are a number of re-migrants of Turkish origin who are recruited from the German labour market with the aim of being appointed to a captive supplier unit owned by a German car company but located in Istanbul. These individuals were described as having qualifications and working experience from the German labour market, as well as speaking both German and Turkish. Re-migrants in this case were perceived as agents of embeddedness. Acting as boundary spanners, re-migrants were first expected to mitigate resistance both from the local employees and from the German and

international clients. Re-migrants' capacity in both German and Turkish and their understanding of the Turkish, the German, and the company cultures, allowed them to create trusting relationships with several actors (e.g., clients and other employees). Secondly, re-migrants were expected to disembed and reembed organisational knowledge assisting the overall development of the captive supplier unit, a task that would be more difficult for an expatriate employee (Müller & Franz, 2019).

In the case of Turkey–Germany, the importance of integration of all employees was not just highlighted but became a driving force behind major decisions on an organisational level. The availability of re-migrants of Turkish origin (with skills in German) affected the selection of Turkey as the new location of the captive supplier unit. This indicates that the profile of all available human resources can potentially affect industry trends and directions.

Working conditions

Working conditions were not the main topic for the majority of the texts reviewed and therefore, the information about working conditions is unequally distributed between different texts. The context of the study affects to a high extent the working conditions described. Hence, a short description of the context is presented in the following paragraphs. Finally, the working conditions presented in this section refer only to migrant employees of Profile 1.

In several studies, migrant workers were described as receiving lower salaries compared to local workers, taking lower-level positions and working longer hours (Lau, 2012; Leach, 2008; Schmitz, 2019). Often, migrants choose to work longer hours in order to complement their income and/or to build the profile of a hard-working person. In the case of Salvadorian migrant employees in Canada, the intention of these employees to work additional hours created conditions that affected other employees and the employers' behaviour. According to Leach (2008), the eagerness of migrant employees to work additional hours might make employers extend the working hours for all employees or might let flexibility and temporary work go unchallenged. This result could cause a reaction of non-migrant employees against their migrant co-workers.

Moreover, Leach (2008) reported that in a working environment of migrant and non-migrant workers, individuals with the same language were positioned physically closer to each other by the management. The workers themselves, though, also tended to distinguish themselves and their colleagues in groups based on the country of origin. Discrimination at work between migrants and non-migrants is noted by the first ones, who claimed that Canadian workers would cover the mistakes of other Canadians in the work, leading to migrants and non-migrants having different workloads despite holding the same positions. As Fernando claimed (Leach, 2008, p. 45), 'The supervisors allowed

him; everybody is watching to see why the Canadian is allowed, while the others have to run the machines.' This type of discriminating action was reported also by Bhalla (2008).

Besides the actual origin of the employees in Profile 1, some studies showed that they can be grouped under the same ethnic label. For instance, Salvadorian workers were labelled as Mexicans because the majority of the employees for the same task originated from Mexico. Leach (2008) discussed in detail how behaviours like the one mentioned above create racialised identities rather than professional identities in the workplace and in society. Replacing the professional identity of the migrant employee with another of their characteristics was also evident in the strikes in the French automobile industry. The Muslim identity replaced the professional and social identity of the strikers with reference to the public discourse (Gay, 2015). In both cases, the respective authors pointed out the importance of colonial history in the definition of the relationship between the migrant group and the non-migrant ones. Furthermore, Leach (2008) argued that researching migrant workers should always be considered in relation to non-migrant workers, in order to highlight implicit elements of their relationship that occur in the workplace but are shaped by broader social factors and historical developments.

Furthermore, unequal treatment between migrant and non-migrant groups was reflected in the case of French strikes (Gay, 2014), where inequalities between local and migrant workers were noticed with Muslim workers demanding freedom of religion, respect, and dignity during the strike. Although a part of the public discourse ascribed this demand to religious reasons, the workers claimed their working rights and the practice of religion as part of their everyday work routines.

Finally, the only working conditions related to the employees of Profile 2 concern the role of Turkish re-migrants as boundary spanners. Compared to their German expatriates the re-migrants seemed to have a core role in the liaison processes, as they are the contact points with clients and other workers. German expatriates on the contrary were limited to back-office roles (Müller & Franz, 2019). From this short but concise information, it can be hypothesised that migrants with highly valued skills have better working conditions.

In summary, histories connected to the country of origin of the migrants seem to be highly important in the way they are treated in their workplaces. As Leach (2008, p. 46) mentioned, 'although these groups appear to encounter each other for the first time side by side on an assembly line or work cell, their histories have been entwined through decades of transnational capitalist expansion and contraction'. Reflecting national histories and international relations, national policies determine who may be a migrant and on what terms, also indicating the expected potential contribution of this person to the local economy.

Companies' initiatives for migrants' integration: The role of training

This section aims to highlight a sub-theme connected primarily with the role that the car industry has in training (potential) migrant workers under different circumstances. The cases of Germany and Sweden are presented.

Aiming to integrate refugees into the labour market, the local administration of the city of Stuttgart in Germany and the private sector developed a relevant initiative engaging public and private actors. In their study, Torfa and colleagues (2022) reported that the main actions taken to assist refugee integration were training provision, providing employment opportunities, funding of initiatives via donations and advocacy on refugees' rights. Small and medium companies were very engaged in the process, due to their need for skilled workers. Although they offered apprenticeships and internships, they also acted as employers, offering jobs to refugees after training. Small and medium companies faced difficulties with bureaucracy issues. However, they supported refugees with reference to their rights to stay in Germany and find employment. On the other hand, bigger enterprises (car and tech industry) acted mainly as trainers and rarely as potential employers, although they also supported the initiative financially.

The second example comes from Sweden (Broberg & Moreno Herrera, 2023). The study focused on historical developments and structural changes with reference to education, migration, and the labour market in the context of Sweden. Viewing recent migrants as an important recruitment base (Volvo Cars, 2002), Volvo Cars developed a pilot training programme for car assembly workers that is a joint collaboration between Volvo Cars Torslanda, an upper secondary school (Göteborgsregionens Tekniska Gymnasium), an adult education organisation (ABF), a trade union (Metall), and the City of Gothenburg. The training is provided by the upper secondary school, owned by the Volvo Car Corporation, AB Volvo and the City of Gothenburg.

According to Broberg and Moreno Herrera (2023), this initiative aims at preparing the students with technical skills, as well as with knowledge and understanding of Swedish society. The programme duration varies from two to four years, depending on the previous experience and competence of the participants. The programme includes practical experience of car assembly and related theory, but also study of the Swedish and English languages, civics, and mathematics at upper secondary level. Students are assigned a mentor, often from the same country of origin. Upon completion of studies, there is a certificate for car assembly workers (including an upper secondary qualification in the core subjects). Having achieved familiarity with Volvo's quality objectives, the graduates are offered employment for a trial period.

Strikes

Connected to the car industry and workers' rights, strikes hold a distinct position in the related literature. Nevertheless, the role of migrant employees is often indirectly explored in the literature. The cases of France and China are briefly presented in this section.

The presence of a Muslim workforce in France has been part of the public discourse related both to the state and companies. Although the Muslim identity of migrants received attention before the strikes (De Barros, 2005), workers from Maghreb or sub-Saharan Africa were considered a workforce whose religious characteristics were not really in question. However, with the major strikes in the automobile sector (mostly Citroen and Talbot) at the beginning of the 1980s, the 'Muslim problem' arose with a focus on the involvement of migrant workers in social conflicts. Such involvement was perceived as a change in their behaviour. The study of Gay (2015) highlighted the inequalities and domination in the world of work, through the differentiated treatment of Muslims by French institutions or their representatives.

In addition, Gay (2015) highlighted how a religious identity was transformed through discursive practices into a racial identity (a theme present also in Leach, 2008, with professional identity replaced by racial identity). Religion became a major element in explaining the conflicts, hiding the social roots of the issues, the organisation of work, and the working conditions. Migrants were perceived as Muslims, and the problem was also labelled as such. The actual questions of work and domination motivating the strikes were sidelined and the religious characteristics of strikers were considered to overshadow their professional and social identities.

The second example from France (Gay, 2014) described how at the end of the 1970s and the beginning of the 1980s the automobile industry experienced a restructuring period resulting in a massive reduction in low-skilled jobs. As a reaction to the layoffs at the Talbot factory in Poissy in 1983, a strike started. Under this strike, some of the specialised migrant workers, the first to be concerned by layoffs, demanded assistance to return to their countries of origin. The trade unions, uncomfortable with this demand, distanced themselves from the fight for employment, although they ended up accepting the demand. The government, on the other hand, saw an opportunity for a new system that supported the return of migrant workers' repatriation. In the study of Gay (2014), migrant workers were given a voice as migrants and not as workers, as they based their claims on their contribution to France and not to the car industry.

While the French case is an interesting source of information about migration, literature from China makes it hard to reach conclusions about migrant workers as they are only viewed as part of the larger working population and are not considered separately. In 2010, there were big strikes by Honda workers in China,

leading to changes in the working rights of car industry employees but also in changes in the way unions were formed and operated (Chan & Hui, 2014; Lau, 2012). Regarding migrants' role in the strikes, migrant workers were considered part of the broader worker population, and they were not discussed as a separate group (Chan & Hui, 2014). In general, in literature related to China, migrant workers have been discussed with reference to their motivation to move and work in urban areas, but also their tendency to remain there and continue working (Franceschini et al., 2016).

Offshoring and transnational migration

This theme addresses relationships and conditions within the activity of service offshoring. Offshore insourcing describes a wholly owned (production) unit, also called a captive supplier, that is located in a foreign country. The captive supplier unit is contracted to provide business functions otherwise performed by the parent company or in-house. Offshoring is discussed in the context of Mexico–United States and Turkey–Germany, with the United States and Germany owning the parent production units.

In the Mexico–United States context, Peña (2000) investigated the working conditions in the *maquiladoras*, the captive supplier units owned by USA companies, but located in Mexico. *Maquiladoras* offered employment to local Mexican workers from both urban and rural areas, who are often low-skilled. According to Peña (2000), the turnover rates among *maquiladora* workers are quite high, with an average tenure of 10 months before resignation. Nevertheless, the car industry *maquiladoras* have the most stable working environment as the workers tend to stay an average of two years.

With reference to the relationship between Mexico and the United States, the theme of transnational migration is also discussed by Crossa Niell and Delgado Wise (2021), but with an emphasis on the intellectual and scientific contribution of the global South to the global North via the migration of a trained and highly skilled workforce. More specifically, the study focused on Mexican engineers employed in the car industries in Detroit. The authors highlighted Mexico's asymmetrical and subordinate role to the USA, with limited or no influence in the field of innovation, although with a contribution via the Mexican workforce. As a result of this asymmetrical and dependent relationship, Mexico has become an exporter of a qualified, trained, and prepared labour force, for whom there is no place in the narrow Mexican labour market. This workforce is massively attracted to the most dynamic technological development of the US economy.

Moreover, the case of Turkey–Germany provides the present study with more details on offshore outsourcing and the role of migrant employees in it. According to Norlander (2014), the role of labour migration has been ignored in the service offshoring literature, with only a few exceptions (Anderson, 2015;

Duvivier & Peeters, 2011). Offshore outsourcing studies have been performed mostly in countries where English is spoken, like India and the Philippines (Müller & Franz, 2019). Offshore outsourcing in business practice relates not only to service provision but also to knowledge transfer between the various cultural and institutional contexts connected to both onshore and offshore locations. With knowledge transfer being a crucial precondition for offshoring (Chen et al., 2013), (re)migrants' role as boundary spanners becomes vital (Müller & Franz, 2019).

Briefly, Müller and Franz's (2019) study referred to the case of a German original equipment manufacturer, operating as a lead firm in automotive production. In 2013, the enterprise resource planning software services were offshored from Germany to a captive offshore service centre located in Turkey. Hence, the company hired an intercultural group of employees, meaning highly skilled (re-)migrants of Turkish origin. More specifically, highly skilled refers to holding a tertiary degree. Re-migrants of Turkish origin are Turks who lived in Germany for at least 12 months before moving (back) to Turkey. Also, individuals of Turkish origin born and raised in Germany were included.

According to Müller and Franz (2019), offshore outsourcing creates a double mobility of both capital and knowledge transfer via the skilled workforce. The process also requires double embeddedness. For the re-migrants that meant that they were embedded both in the Turkish culture and context, as well as in the company's working culture and norms, connected with German culture and language. Competences required by the re-migrants included technical skills, and German and Turkish language skills, while familiarity with both German and Turkish contexts was implied. Acting as boundary spanners, re-migrants were expected to mitigate resistance from the local employees and from the clients, by creating trusting relationships with both actors. Furthermore, re-migrants were expected to disembed and re-embed organisational knowledge facilitating the development of the captive supplier unit.

Both Mexican and Turkish workers in the above-mentioned cases were perceived as resources in the production process and they were heavily relied upon for their competence and labour. Nevertheless, in the case of re-migrants, their origin, heritage and culture were perceived as advantages and were also utilised together with their labour and competence. On the other hand, cultural background was not of direct use in the case of Mexican employees, either in *maquiladoras* located in Mexico or in the parent production units in Detroit. In addition, in all cases in this scenario, the overall control over the captive supplier unit was held by an expatriate, a national from Germany or the USA, rather than a Mexican or Turkish origin employee. This is indicative of the power relations not only between the parent and child unit but also between the countries involved.

Discussion

By identifying the relationships between the migrant workforce and the car industry as they are reflected in the international literature, this study has reached the following results. Firstly, there are mainly two profiles of migrant workers in the literature, while working conditions are included in the majority of the studies reviewed for this literature review. Secondly, the business practice of offshoring seems to affect the migrant workforce in a way that reflects many aspects of their work life and most importantly their status. Thirdly, from a historical perspective, strikes have affected migrants' working conditions and rights. And finally, issues of definition of the migrant worker have not been resolved at an international level, creating confusion and hindering further research.

Reflecting on the identified themes and with reference to migrant workers' profiles, the types of skills that they bring to the car industry seem to be of primary importance. Highly skilled migrants seem to enjoy higher status and to be assigned further responsibilities, as the case of Turkish re-migrants shows. Another interesting element is the use and, thus, the value attributed to the cultural capital that re-migrants bring. Cultural capital can be viewed as the social position that a person has and how it affects their actions. In analogy with economic capital, cultural capital is a resource, for example knowledge, to be invested and/or converted into other forms. In this study, Turkish re-migrants' cultural capital is their competence in Turkish and German, along with their knowledge of the Turkish labour market and society. Moreover, the cultural capital of Mexicans and Salvadorians comprises the Spanish language and possibly their knowledge about *maquiladoras*. While cultural capital does not seem to be of importance in the case of Mexican engineers in the United States (Crossa Niell & Delgado Wise, 2021) or of Salvadorian migrants in Canada (Leach, 2008), Turkish re-migrants' cultural capital is decisive for organisational decisions (the selection of location for the captive supplier unit) and for the recruitment of re-migrants themselves.

The cultural capital and the language skills of re-migrants renders them suitable to be boundary spanners mediating between the car company and the German-related culture that might inform its working culture, the Turkish employees (employed in Turkey) and the clients that might raise concerns about the new captive supplier unit. This case frames re-migrants as individuals with added value and stands against the deficit approach that is often encountered with reference to other migrant workers, portraying them as lacking the needed skills or failing to integrate into the new environment (e.g., Leach, 2008). Setting the focus on assigning the right task to the right person, this case is indicative of the unexploited potential of migrant workers. Moreover, it shows how managing human resources can potentially empower workers. High-skilled migrant

workers' impact on broader industry innovation are also reported in the study by Fassio and colleagues (2019).

On the opposite side of the deficit approach lies the provision of promising practices that focus on the exploration of what are considered successful integration strategies. Such initiatives are presented in the studies of Torfa and colleagues (2022) and Broberg and Moreno Herrera (2023). In both cases, the importance of training is highlighted not only with reference to technical skills but also in relation to the new context, which includes the host country but also the new workplace. The case of Sweden provides an additional strategy rooted in the idea of using the cultural capital of migrant workers, by assigning them the role of a mentor to new migrant workers. As in the case of re-migrants, migrants in the Swedish example become boundary spanners for a potential incoming workforce.

Last but not least, the issue of power relations between different countries cannot be overlooked. This issue runs through all the material presented and it is often stated and discussed directly by authors. The power relations between countries, which are often the result of past histories and/or present economic dependencies, are reflected highly in individuals and groups of migrant workers and how they are perceived by others. These relations become the roots of inequality and discrimination. As the Canadian case demonstrated (Leach, 2008), the presence and activity of migrants might create new conditions and, thus, put at risk the control that white male workers, often skilled, assert over their own labour (Camacho, 1999), provoking the reaction of the first, the dominant group. This brings the two groups into some opposition, creating a division between the dominant group and the 'others'.

With reference to the relationships between migrant and non-migrant groups, the literature connected to the car industry clearly indicates the tendency of dominant groups to replace migrants' professional or social identities with racial identities. In the case of the workplace, as described in Leach (2008), this can be explained as the result of division between 'us' and the 'others'. In the case of strikes in France (Gay, 2014, 2015) the replacement of migrants' professional or social identities with racial identities may also be motivated by a need to downgrade the validity of the demands made by the migrant group of strikers. Besides migrant workers' self-identifications, usually based on their class, imposed categorisations deriving from characteristics such as ethnicity and/or race still constitute parts of their social life (Koskela, 2019). Classifications imposed by others can conflict with self-identification (Jenkins, 2004), and it has been previously shown that migrants might struggle to maintain a social identity based on class, rather than race and ethnicity (Eliasson, 2024).

From a research perspective, the current study points out the scarce research about migrant workers in the car industry. The identified and presented

literature originates from various disciplines, such as economic geography, migration, history, labour studies, anthropology, and business. While this diversity offers a variety of perspectives, the particular focus on the relationships between migrant workforces or migration and the car industry is not represented wholly in any of them. In addition, with different disciplines focusing on different aspects, the cases presented in the literature are not easy to compare, providing a fragmented picture of the question under investigation. Similarly, it can be noted that the research reviewed for the current study was often framed within the general migration framework of different countries. Combined with the lack of studies representing companies' actions and initiatives on integrating migrants (except for Torfa et al., 2022), the conclusions drawn by the present study can only act as indications and hypotheses.

Moreover, this study highlights issues of definitions and clarity in research communication. Starting with the literature referring to China (Franceschini et al., 2016; King-Chan & Hui, 2014; Lau, 2012; Schmitz, 2019), but also present in a study about Mexico (Peña, 2000), the issue of terminology becomes prominent. In the above-mentioned studies related to China, migration refers to individuals moving between rural and urban provinces, in contrast to the definition of migrants as individuals moving between different countries. With China being a large country, moving between provinces might have characteristics similar to transnational migration. Using the same concept of migrant for two quite distinct movements can create confusion and misunderstandings and, hence, may hinder further research. This clarification, besides serving as a limitation for the present study, raises the issue of definitions shared in the broader research community and the importance of their clarity.

Concluding remarks

In conclusion, the present study contributes by providing an overview of the literature and highlighting research gaps. Conclusions related to practical implementations are hard to reach due to the limited information available and the contextuality of each case presented in the literature.

Identifying two profiles of migrant workers shows diversity regarding the reason of recruiting migrants, meaning specific technical skills/knowledge or unskilled work force. In this case, different types of training or upskilling are required, as well as different approaches to integration or inclusion in the workplace. The literature referring to strikes on the other hand, draws attention to migrant workers' limited working rights, discussed as a result of the power relations between countries, power relations that derive from past histories and/or economic dependencies. Hence, thoughts are raised about the impact of past histories and dependencies in current approaches in in-company training

and education. Training and education cannot be expected to be purely focused on skills; but reflecting or distinctively including cultural elements or efforts of integration. Therefore, in-company training and other re- and up-skilling processes in VET entail social and political parameters influencing the migrant workers' lives and identities. That, in turn, indicates the necessity for research and reflection on how these cultural elements are infused in 'technical training' and how they can be offered in a way that does not only serve the receiving country´s interest, but also the migrant worker´s identity transformation.

In terms of research, the gap in the literature addressing the relationships between the automotive industry and migrant labour has been highlighted, rendering the need for further research urgent, especially considering the rapid growth of the car industry and of the migration movements. This research should take into consideration the confusion around key concepts, like migration, and provide clarifications that could assist in understanding the context and the phenomenon under discussion.

In accordance with Leach (2008), it is also important to compare migrant and non-migrant groups, with aim of detecting not only potential inequalities, but also power relations between the two that affect the working life of both groups. Finally, moving away from a deficit approach, research might contribute by investigating promising practices when the knowledge and skills of migrant employees, as well as their cultural capital have been used to improve production or the working life.

Endnotes

[1] The EBSOhost database includes the following databases: Academic Search Premier, OpenDissertations, ATLA Religion Database, Business Source Premier, CINAHL, Communication & Mass Media Complete, Communication Abstracts, Criminal Justice Abstracts, eBook Collection (EBSCOhost), EconLit, ERIC, Fuente Académica Premier, GreenFILE, Library, Information Science & Technology Abstracts, MathSciNet via EBSCOhost, MEDLINE, Philosopher's Index, Regional Business News, RILM Abstracts of Music Literature, Sociology Source Ultimate, MLA Directory of Periodicals, MLA International Bibliography.

[2] A factory in Mexico that is run by a foreign company and exports its products to the company's country of origin.

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* The asterisk (∗) indicates the studies that have been part of the literature review body for this study.

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Integration of immigrants into vocational education and training in Europe: A scoping review

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Abstract

Increasing immigrants' labour market participation is an important political goal in many European countries. Vocational education and training (VET) can play a key role in this process. The aim of this scoping review was to review the literature on using VET programmes as a means for immigrants' labour market integration by mapping key characteristics of empirical studies within this research field, and to analyse challenges reported in the literature. We conducted systematic searches in three international indexed databases and supplementary searches in alternative sources. In total, 20 studies (published 2013–2023) were included. Our findings suggest that research on immigrants and VET has slightly increased during the ten-year period we mapped. The studies are predominantly qualitative and originate from the Nordic and German-speaking countries, with refugees and teachers as the main research participants. Through thematic analysis, we identified two broad and interrelated themes of barriers to integration in VET programmes: institutional challenges and situational challenges. Institutional challenges were further categorised into the sub-themes of information, access, course provision, and organisational challenges. Situational challenges include newcomer factors, reception factors, immigration policies, and integration policies. These findings highlight the complexity of immigrants' learning trajectories in VET, shaped by the interplay of multiple challenges within diverse local and national contexts.

Keywords: vocational education and training (VET), refugees, immigrants, integration, preparatory VET programmes

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Introduction

Across Europe, education and training are emphasised as key policy measures for achieving socio-economic integration (European Commission, 2020), with access to and participation in education and the labour market being identified as important outcomes (Penninx & Garcés-Mascareñas, 2016). In the context of integration policies targeting newly arrived immigrants, these measures are often framed within a 'train-first' approach, referring to long-term investment in developing individuals' skills (Arendt & Bolvig, 2020). Studies suggest that this approach is effective. Obtaining formal qualifications in the country of settlement – such as completing upper secondary education – can increase young refugees' participation in the labour market (Manhica et al., 2019). Likewise, it has been found that immigrants in Germany benefit from occupational-specific education and training, which enhances their access to the labour market (Geven & Spörlein, 2023).

One way of obtaining a formal qualification is through vocational education and training (VET). Both the EU and OECD regard VET as a powerful integration tool to secure newly arrived immigrants' stable labour market participation (European Commission, 2020; Jeon, 2019). Thus, several countries have developed policy measures that target this group's entry into VET. For example, in Switzerland, national authorities decided to use the VET system to facilitate refugees' integration into the labour market, and in 2018, a pre-apprenticeship programme was introduced (Aerne & Bonoli, 2023) with promising results for obtaining a subsequent regular apprenticeship (Stalder et al., 2023). Refugee apprenticeship programmes have also proven to offer effective transitions to employment in Denmark (Jørgensen, 2022).

The promising outcomes of these initiatives raise interesting broader questions about understanding how VET can serve as a means for integrating newly arrived immigrants into the labour market (Moreno Herrera et al., 2022). This growing interest is mirrored in an expanding body of research, spread across several disciplines and fields. To our knowledge, no scoping review and systematic analysis have addressed immigrants' participation in VET. Such a review can summarise central findings thus far and point to research gaps to enhance our understanding. There has been a call for more systematic syntheses drawing on an explicitly stated methodology of retrieving, selecting, and synthesising the relevant body of knowledge in the VET field (Gessler & Siemer, 2020). Therefore, to provide an overview of the literature in this interdisciplinary and dynamically evolving field, we applied a scoping review approach to systematically retrieve and map its breadth and to analyse the main themes. The following research questions are addressed: 1) What are the key characteristics and central topics in the studies we included? 2) What challenges are reported?

To address the first research question, we provide a structured overview of the included studies, mapping study population, geographical focus, topics, and methods used. To answer the second research question, we present a thematic analysis of the challenges the researchers point to in their analysis. Two additional research questions were originally considered, namely, to identify what the findings suggest about the benefits of VET for newly arrived immigrants' labour market integration, and what factors may foster newly arrived migrants' participation and completion of VET. Even though the intention of some of the empirical studies was to investigate benefits and barriers, few have addressed benefits in their findings; hence, we focused on what the literature says about challenges.

In this study, we identified and analysed 20 studies conducted in European countries. While migration is a global phenomenon, we focused on Europe because integration policies, education systems and labour market conditions tend to be more aligned across European countries than across other regions, due to shared legal frameworks and similar socio-political contexts. Our research strategy initially focused on locating VET studies that use the terms 'immigrants', 'refugees' or 'migrants'. Reflecting the literature identified, we adopt the term *newly arrived immigrant* as an overarching term. This term encompasses a range of migration motivations and diverse legal residency statuses. While most of the studies we analysed refer to their study population as *refugees*, some studies that use the broader term *migrants* refer to *refugees*. Moreover, some studies do not explicitly state the migration backgrounds of the students discussed; however, references to countries of origin – like Somalia and Afghanistan – suggest that most students in these studies may be refugees or individuals who have been reunified with refugee family members. When presenting individual study findings, however, we use the terminology applied by the respective authors.

The next paragraph focuses on the benefits and challenges of employing VET as a means for integrating newly arrived immigrants into the workforce. We then go on to describe our analytical perspective and the methods used, including the search protocol and coding procedures. In the results section, the key characteristics and central topics of the included literature are presented, as well as our thematic analysis of challenges. This scoping review ends with a discussion of the findings and reflects on some of the research gaps before its concluding section.

Benefits of VET for labour market integration

While European countries share some general similarities, the role VET can play in integrating newly arrived refugees can vary significantly, because VET systems are structured, organised, and embedded differently in the labour market across countries (Pilz, 2016). In countries where the traditional approach

to vocational training involves a blend of state and company provision – as seen in collective skill formation systems (Busemeyer & Trampusch, 2012) – VET makes significant promises in promoting a smooth transition from school to work (Koehler & Schneider, 2019; Nilsson, 2010) and for facilitating the integration of refugees (Arene & Bonoli, 2023). In collective skill formation systems, shared responsibility of employers, labour organisations, and the state ensures that training – in a dual system both at school and in the company as an apprentice – aligns with labour market needs in a way that benefits both individuals and employers. Individual benefits for newly arrived migrants include acquiring highly relevant technical and practical job skills, alongside opportunities for learning about the settlement countries' formal and informal workplace norms, practices, and expected conduct (Aerne & Bonoli, 2023; Jørgensen, 2022). Such dual systems, through which school-based learning is combined with on-the-job training as an apprentice, can, for instance, be found in Germany, Austria, Switzerland, Denmark, and Norway. In contrast, Sweden, Finland, and France are examples of countries that have traditionally employed state-led, school-based VET systems (Pilz, 2016), where work-based learning holds less significance. Although such typologies offer helpful analytical frameworks, it is important to recognise that VET systems are evolving. For instance, recent reforms in Finland have increased the emphasis on work-based and competence-based learning (Rintala & Nokelainen, 2020).

A benefit of most VET systems is that newly arrived immigrants can start to learn vocational skills even with limited proficiency in the language spoken at work (Jørgensen, 2022). Another benefit across countries is that VET certification is recognised by employers in the labour market. Hence, there is a high chance of finding employment that matches the documented skills obtained upon completion (Geven & Spörlein, 2023).

Challenges facing immigrants in VET

In several OECD countries, immigrants' participation in VET is lower than the majority population (Beicht & Walden, 2019; Jeon, 2019), which has been explained by the multiple challenges that many face.

First, some groups of immigrants may have problems fulfilling the pre-requisites for entering VET, due to inadequate formal qualifications, language skills, lack of work experience or insufficient knowledge of the local culture and values (Bredgaard & Thomsen, 2018; Jeon, 2019; Stalder et al., 2023). Such challenges may particularly put pressure on 'late arrivals', that is, young people who arrive in a new country late in their educational trajectory. These young people need to complete school in a short time after arriving in a new country whilst also learning a new language, building new social bonds, and getting acquainted with new cultural norms. Many young recently arrived refugees face

additional challenges because their education has been disrupted or is incomplete due to pre-migration conditions and the flight (Lynnebakke et al., 2020). This disruption also leads to some refugee students entering upper secondary school as young adults to fill in educational gaps. Such delays can entail additional burdens and a sense of urgency to complete one's education, for example if they are young adults who have established their own families.

Refugees have a vast variation in their educational backgrounds and aspirations for further education and work. Some want to complete education and start working as soon as possible. Some have higher education aspirations, but delay pursuing these, which can be due to both being older when entering and completing upper secondary school, as well as wanting to financially support family members in the new country or abroad who can be in dire situations (Joyce et al., 2010; Lynnebakke et al., 2020; Nell-Müller et al., 2021; Oppedal et al., 2017). Hence, for some refugees, VET may be a relevant educational path in the longer or shorter run as they navigate delayed educational trajectories and other complex life challenges.

A second challenge newly arrived migrants may face, regardless of migration background, is related to having insufficient information about the education system and dual training systems. This topic has frequently been addressed in the literature (Beicht & Walden, 2019; Jeon, 2019) as many young people with an immigrant background might be unfamiliar with the benefits and opportunities of the VET system and the value of a vocational qualification on the labour market.

A third barrier for newly arrived immigrants' entry and completion of VET may concern difficulties in securing an apprenticeship or work placement, which can be due to a lack of social networks (Roth & Weißmann, 2022) and/or the presence of ethnic discrimination by employers (Imdorf, 2017). Companies can be highly selective in their choice of apprenticeship candidates (Bonoli & Wilson, 2019). In dual VET systems, an apprenticeship contract is a prerequisite for both accessing VET and progressing to the workplace-based part of the training. Consequently, not obtaining a placement or an apprenticeship can hinder both entry into VET and the transition to the practical company-based training phase of VET.

The relevance and degree of these challenges vary between countries, depending on the structure of the education system and the extent to which the state is willing to intervene in the VET system (Busemeyer & Trampusch, 2012). For example, employers' social engagement can be increased by state interventions such as subsidies (Aerne & Bonoli, 2023) or by establishing preparatory measures that can provide language training and information about the labour market, and connect students to companies – all of which can potentially make the transition to regular VET programmes easier (Jeon, 2019).

Analytical approach

To guide our thematic analysis, we adopted a theoretical approach that is grounded in research on barriers to participation in education. Specifically, we applied Cross's (1981) framework, which categorised such barriers into three main types: *dispositional, situational,* and *institutional*. Situational barriers refer to the individual's broad circumstantial conditions; institutional barriers concern institutional conditions; and dispositional barriers concern individual dispositions or motivation to participate in education. Cross (1981) developed this framework to describe barriers faced by adult students in their pursuit of post-secondary education. We found this framework to be relevant for understanding the trajectories of immigrant VET students, because many of these students are (young) adults who balance multiple responsibilities, such as caring for family members and covering living expenses, which set them apart from the typical obligations that younger VET students have.

Moreover, we followed Lambrechts (2020), who has studied refugees' barriers to accessing higher education, in the sense that we shift the focus away from individual traits and 'deficits', and how students adapt to the educational system. This contrasts with theories of labour market integration that emphasise an immigrant's human capital (e.g., Bredgaard & Thomsen, 2018), which tend to focus on individual barriers and enablers of integration. By highlighting situational and institutional barriers, our perspective highlights structural and systemic barriers, thereby addressing how VET can be made more inclusive and flexible and adapt to the resources of students.

Methodological approach

This study applies a scoping review approach – a type of 'review research' (Kunisch et al., 2023) that is suitable for systematically identifying, describing, and examining broad, complex, and dynamically developing research topics with the aim of identifying knowledge gaps (see also Levac et al., 2010; e.g., Tricco et al., 2018). A scoping review usually provides a description of the core characteristics of the identified studies, such as publication year, country of study, and discipline. In addition, it organises the studies into themes and syntheses to address the review question(s). Scoping reviews can also be used to clarify key concepts in the literature (Munn et al., 2018). Given our broad research questions and the high interdisciplinarity of this emergent field, we deemed the scoping review approach well-suited for our study. As we assumed that the number of eligible studies would be limited, we assessed the method to be appropriate for conducting analyses beyond bibliometric metadata, providing thematic analyses and syntheses based on data from full texts (e.g., Campbell et al., 2023). To ensure transparency in our study, we used the Preferred Reporting

Items for Systematic Reviews and Meta-analysis for Scoping Reviews (PRISMA-ScR) Checklist (Tricco et al., 2018).

Search strategy and eligibility criteria

The review includes empirical studies on the participation of immigrants in VET in Europe, published between 2013–2023. We focused on studies published in English, including immigrant students who either qualified for or participated in VET. Both peer-reviewed journal articles and edited book chapters were considered. Studies with insufficient information in the abstract were excluded. The search strategy was informed by inclusion and exclusion (eligible) criteria drawing on the *Population–concept–context* framework recommended by the Joanna Briggs Institute for scoping reviews (The Joanna Briggs Institute, 2015). Table 1 outlines the eligibility criteria.

Table 1. Eligible criteria.

Category	**Inclusion criteria**	**Exclusion criteria**
P–population (Who?)	Immigrants qualifying for and participating in VET	Non-immigrants Children of immigrants ('second generation' immigrants) Labour
C–concept (What?)	Vocational education and training, including apprenticeship	Non-structural measures Higher education Higher vocational education
C–context (With what qualifiers?)	Education for labour market integration	Other forms of integration
Time span	2013–2023	Before 2013
Publication status	Peer-reviewed journal articles Edited book chapters	Other types of scholarly publication
Language	English	Languages other than English
Design	Empirical studies	Theoretical papers
Country of origin	European countries	Non-European countries

Following a protocol that is openly accessible (Wollscheid et al., 2023), we applied systematic searches in three internationally indexed databases: Web of Science (WoS) and Scopus (both with a general focus) and Education Source (disciplinary focus). The main searches and strategic searches were conducted in August 2023 for the first two databases and in October 2023 for the third database. Table 2 lists the initial search terms. Table 3 presents the search strings that were tested and revised, tailored for each of the three databases.

Table 2. Search terms.

C–concept	P–population	C–context
Vocational education and training Vocational education Vocational training TVET VET Apprenticeship*	Immigrant* Refugee* Migrant*	Integration Inclusion

Table 3. Search Strings.

Search string 1	Vocational education and training OR vocational education OR vocational training OR VET OR TVET OR apprenticeship*
Search string 2	Immigrant* OR refugee* OR migrant*
Search string 3	Integration OR inclusion
Search string 4	1 AND 2 AND 3

In international indexed databases such as WoS and Scopus, there is relatively lower coverage of publications in the social sciences and humanities than in other disciplines (see Aksnes & Sivertsen, 2019; Heck et al., 2024; Wilder & Walters, 2021). To address this limitation, we applied a combination of citation checks of all publications and reference list checks of core publications (thematically highly relevant publications; additionally identified papers). Such supplementary searches are a common practice in systematic reviews in the social sciences (Papaioannou et al., 2010), and generated eight studies for inclusion. As a result of the initial and supplementary searches, we identified 17 peer-reviewed journal articles and three book chapters. Figure 1 provides the identification and selection process (PRISMA-ScR-diagram).

For the screening, we imported all references (without duplicates) from our searches in the databases into Covidence, a web-based systematic review software. The first and second author were involved in the screening process. For pilot testing and validation of the first screening process, the titles and abstracts of 20 references were screened by the first and second authors independently of each other. Consensus mismatches were resolved by discussion and in cases of uncertainty, the full text was retrieved. After that, the remaining references were screened by the first author. Uncertain cases were discussed between the first and second authors until consensus was reached. The screening process was informed by the eligibility criteria, which were revised after the validation phase. Twenty studies were deemed eligible for inclusion, and these are marked with an asterisk in the reference list.

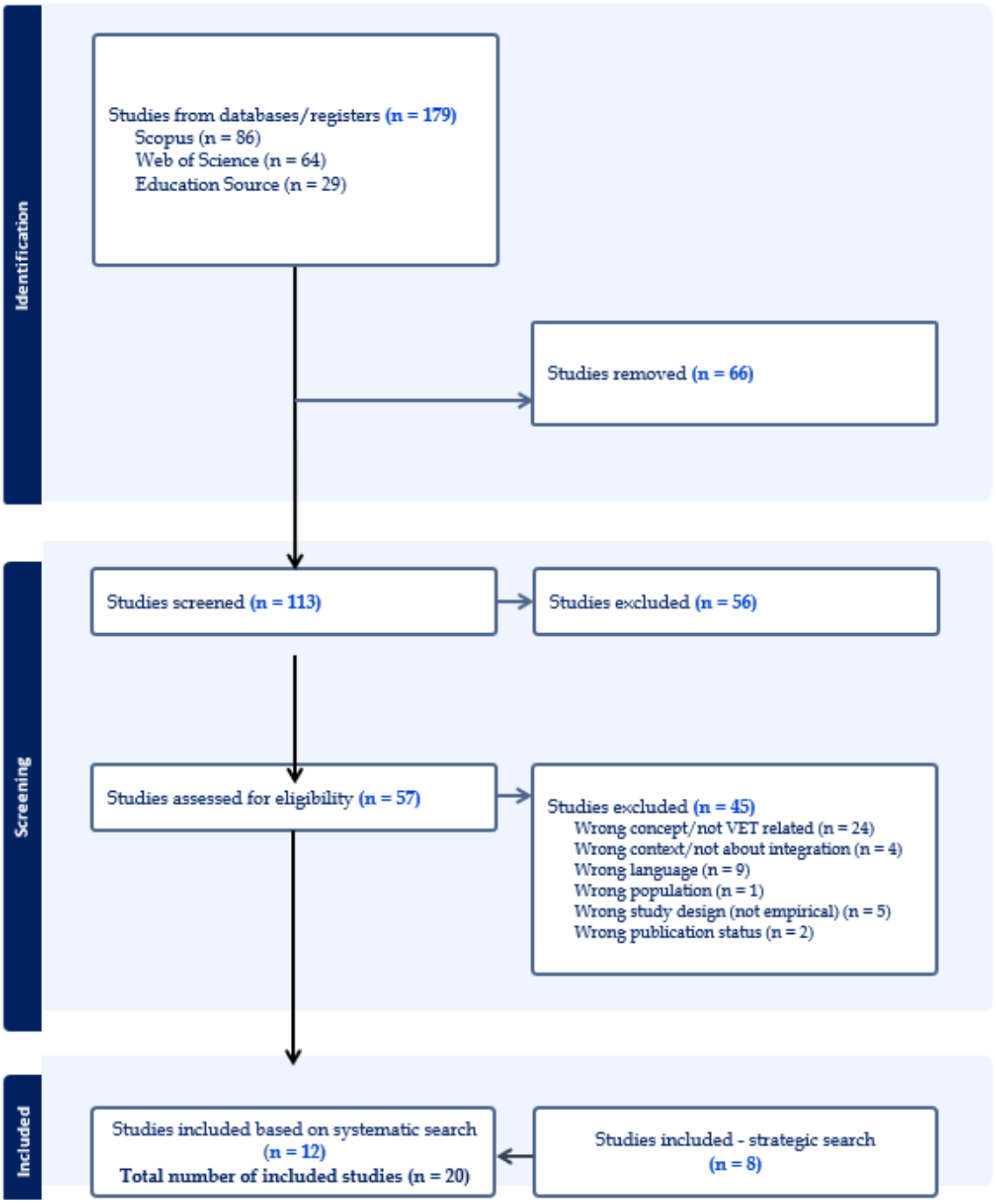

Figure 1. PRISMA Flow Chart.

Coding procedure and analytical framework

The 20 studies were analysed according to a coding scheme designed for this review. Relevant codes comprised descriptive study information such as the

studies' authors, publication year, geography (place of study), purpose, study population, research design, main findings, and conclusions. Further analyses comprised the extraction of central topics and identification of research gaps and implications for further research.

To address the second research question, we prepared for analysis by extracting information from findings judged to be relevant to the research question. The first author was mainly responsible for this process. Extracted data were stored and analysed in a Word document. The coding procedure followed a thematic approach (Braun & Clarke, 2006) and in the first phase involved one reviewer (first author) who independently analysed and coded the extracted data. Thereafter, the third author participated in the coding process in the same document as the first author. The coding process and initial themes were discussed, and the two reviewers refined these to agree on a final set of themes. Emerging themes were discussed with the second author.

Results

Below, we present the results in line with our research questions: 1) *What are the key characteristics and central topics of the studies we included*, and 2) *What challenges are reported?*

Key characteristics in the included articles

In the following, we describe the studies according to characteristics such as publication status and year, country of origin, VET context, research design, and participants.

The review included 17 journal articles and three book chapters. Most of the articles were published in journals in the field of VET research. The three book chapters were published in books that explored migration in relation to education (including the role of VET), employment, and asylum. During the period spanning from 2013 to 2018, there was a notable scarcity of published studies concerning VET and immigrants (N=2). However, an upward trend can be observed in 2022 and 2023, with more than half of the studies (N=11) emerging during those two years. This trend may be attributed to the significant influx of immigrants and asylum seekers in several European countries in 2015/2016, as research on planning, implementing and evaluating educational measures, as well as the scientific publication process, usually takes considerable time. Of the studies published after 2015, 16 out of 18 framed the need for more research within the context of increased refugee immigration.

The studies reported research undertaken in nine countries: Germany (7 studies), Sweden (3), Switzerland (2), Austria (2), Finland (2), and Denmark (1). In addition, three studies were comparative, including the countries Sweden and

Australia (1), Austria, Denmark, and Germany (1), as well as the UK, Germany, Romania, Italy, and Denmark (1).

Qualitative research designs were used in most of the included studies (17). Two studies that evaluated pre-vocational preparatory classes used a mixed-methods design (Reinke & Goller, 2022; Stalder et al., 2023). Only one study used a quantitative design, namely a longitudinal survey study design (Maue et al., 2021).

Examining the study context, we found that many studies (12) explored VET programmes at the regular upper secondary school level, focusing either on the school-based part (6), the work-based part (3), or both (3). Six studies examined pre-vocational preparatory classes that aimed to improve refugee students' transition to regular VET. Lastly, two studies investigated VET at the national system level, comprising two comparative studies that mainly explored barriers in VET policy for accessing VET.

The studies addressed various population groups, with most incorporating the perspectives of students and teachers. Ten studies explored students' experiences of participating in VET. Among those that explicitly reported the number of included students, sample sizes ranged from two to 33 students for the qualitative studies, and from 333 to 432 students for studies using survey or register data (see Table 4). On average, about 70 per cent of the research participants are men, probably reflecting that most of the refugees are male and that courses in general were male-dominated (Chadderton & Edmonds, 2015; Jørgensen et al., 2021). Interestingly, all but one study that involved students as research participants originate from German-speaking countries. The only study from the Nordic countries included two students (Mustonen & Strömmer, 2022), thus likely illustrating scarce research evidence published in English from the voices of newly arrived refugees in VET in these countries.

In contrast, five of the nine studies that examined teachers' viewpoints and experiences were conducted in the Nordic countries. Within the studies that explicitly stated the number of participating teachers, the number varied from 4 to 11 for the qualitative studies, and a survey study included 38 teachers. Additionally, two studies incorporated perspectives from school leadership or school authorities alongside teachers responsible for pre-vocational classes for refugees.

Table 4. Overview of studies including students as research participants.

Study (first author, year, country)	Number of participants	Sex	Age	Nationality
Stadler (2023) Switzerland	432 refugees	60.5% men	*M*: 26.4 years (target 16–35)	-
Maue (2021) Germany	333 refugees	82% men	15–30 (M: 18.7 years)	Syria, Afghanistan, Iraq, Eritrea, Gambia
Rusert (2023) Germany	33 refugees or immigrants	31 men 2 women	17–38	Afghanistan, Albania, Bulgaria, Gambia, Iraq, Kosovo, Mali, Pakistan, Palestine, Romania, Syria
Fontanari (2022) Germany	30 refugees	-	-	Various Sub-Saharan countries
Verwiebe (2019) Austria	26 refugees	20 men 6 women	18–40	Afghanistan, Syria, Iraq
Wehking (2023) Germany	23 refugees	18 men 5 women	18–40	Afghanistan Syria, Iraq, Mali, Gambia, Somalia, Suda, Saudi Arabia
James (2020) Germany	22 refugees	20 men 2 women	19–25	Afghanistan, Eritrea, India, Somalia, Syria
Ortlieb (2022) Austria	6 refugees	6 men	15–29	Afghanistan, Iran
Mustonen (2022) Finland	2 migrants	2 men	-	Somalia, Afghanistan
Glorius (2020) Germany	Refugees (no *N* mentioned)	-	14–17	Mainly from Afghanistan, Eritrea, Syria, Kosovo

The perspectives of working life representatives, such as employers, colleagues, or instructors, were part of the data in three studies. Finally, two studies included other actors like activists, social workers, lawyers supporting refugees, refugee charities, researchers, and stakeholders. The articles that used the term 'stakeholders' referred to employees in vocational schools, non-governmental organisations, and labour market organisations (Jørgensen, 2022) as well as national VET and migration authorities, regional VET authorities, and professional training organisations (Aerne & Bonoli, 2023).

Central topics of the included studies

We grouped the central topics of the studies into four categories: (1) students' learning and integration, (2) teachers' practices and perceptions, (3) programme establishment, development, and evaluation, and (4) benefits and barriers of using VET as an integration tool at state level.

Students' learning processes and integration through VET

Seven studies addressed *students'* learning processes and integration through VET. These studies focused on several topics, including how students' legal status can impact their learning process in VET (Fontanari, 2022; Wehking, 2023); how translanguaging practices support students' learning (Mustonen & Strömmer, 2022); and students' experiences of their training or social learning environment in either the vocational schools (Rusert & Stein, 2023), in the workplace (Ortlieb & Ressi, 2022; Verwiebe et al., 2019), or in both settings (Stalder et al., 2023).

Teachers' practices and perceptions

Teachers' practices and perceptions are discussed in five studies. These encompassed investigations into understanding VET teachers' practices to support language learning in school-based VET (Paul, 2023) and the integration of learning within the dual system, both at school and work (Choy & Wärvik, 2019). Additionally, attention was given to the development of teaching practices for immigrants (Henning Loeb, 2020), as well as teachers' perceptions of diversity (Itkonen et al., 2015). Furthermore, insights were gained into teachers' perceptions of their students' situation inside and outside school (Asghari & Abraham, 2022).

Programme establishment, development, and evaluation

Concerning programme establishment, development, and evaluation, all five studies in this category investigated different aspects of newly established preparatory programmes designed to transition refugees into regular VET in Germany and Switzerland. Two studies evaluated the local implementation process in Germany (Glorius & Schondelmayer, 2020; James et al., 2020). The three other studies took a more exploratory approach. In Switzerland, Aerne and Bonoli (2023) addressed the organisational and coordination challenges involved in the decision-making process at the federal and regional levels for establishing a new national pre-vocational programme. Maue et al. (2021) analysed transitions from prevocational preparation classes to regular VET. Finally, Reinke and Goller (2022) explored challenges encountered in implementing and developing a preparatory programme.

Benefits and barriers of using VET as an integration tool at state level

Three studies aimed to investigate the benefits and barriers of using VET as a tool for labour market integration by looking at state-level policies and organisation of VET. This group of studies includes two cross-European studies (Chadderton & Edmonds, 2015; Jørgensen et al., 2021) and one study that focuses on the role of apprenticeships for integrating immigrants in Denmark (Jørgensen, 2022).

Reported challenges

We conducted a thematic analysis to categorise what the studies report about challenges of using VET as a means for supporting immigrants' integration into education and the labour market. The themes were organised into two overarching categories – *institutional challenges* and *situational challenges* – each comprising four and three sub-themes respectively, aligned with our analytical framework (see Table 5).

Institutional challenges

The first overarching theme, institutional challenges, comprises four sub-themes: *information*, *access*, *course provision,* and *organisation*. Among these sub-themes, information was addressed the least in the studies. Four studies identified informational challenges that newly arrived immigrants face, particularly difficulties in understanding the educational system in the new country before entering VET (Chadderton & Edmonds, 2015; Jørgensen et al., 2021; Reinke & Goller, 2022) and during a preparatory VET programme (James et al., 2020).

The studies on *access-related challenges* concern entrance requirements in VET that make it difficult for immigrants to attend. Chadderton and Edmonds (2015) described an inflexible and highly regulated VET system in Germany, Denmark, Romania, and Italy, which makes it difficult for refugees to enter. Jørgensen et al. (2021) pointed to the same challenge. However, this study to a greater extent related access problems to individual factors, that is, refugees' language skills, incomplete basic education, as well as their reduced chances of obtaining an apprenticeship contract. Other studies also addressed the latter. For example, one study found that teachers could take on a mediating role in supporting refugee students' access to informal social networks in which apprenticeships are distributed, but that they might not feel responsible for this work (Glorius & Schondelmayer, 2020). Studies also indicated that teachers might struggle to find work placements for their students due to employers' perceptions of the assumed cultural or language barriers refugees face (Henning Loeb, 2020; Jørgensen et al., 2021). Another access-related finding concerns challenges with accrediting refugees' prior education due to lack of documentation or devaluation by authorities. This can make re-education necessary (Chadderton & Edmonds, 2015; Jørgensen et al., 2021). As noted in the introduction, this finding is well-established in the research literature, and several European countries have developed systems for skills assessment and recognition of refugees' prior qualifications (Jeon, 2019).

Challenges concerning *course provision* of VET to immigrants is a broad sub-theme, and aspects of inadequate course provision are discussed in 13 studies. This sub-theme relates to different pedagogical challenges at the organisational (meso) and individual/class (micro) levels. Meso-level challenges concern

Table 5. Overview of thematic categories for research question 2: Which challenges are reported?

Primary theme	Sub-themes	No. studies	Reference
1) Institutional challenges	Information	4	Chadderton & Edmonds (2015), Jørgensen et al. (2021), James et al. (2020), Reinke & Goller (2022)
	Access	6	Chadderton & Edmonds (2015), Glorius & Schondelmayer (2020), Henning Loeb (2020), Jørgensen et al. (2021), Jørgensen (2022), Verwiebe et al. (2019)
	Course provision (curriculum, language training, time constraints, student heterogeneity, teacher-student relations, teacher practices and perceptions)	13	Chadderton & Edmonds (2015), Choy & Wärvik (2015), Glorius & Schondelmayer (2020), Henning Loeb (2020), Iktonen et al. (2015), James et al. (2020), Jørgensen et al. (2021), Mustonen & Strömmer (2022), Ortlieb & Ressi (2022), Paul (2023), Reinke & Goller (2022), Rusert & Stein (2023), Wehking (2023)
	Organisation	7	Aerne & Bonoli (2023), Chadderton & Edmonds (2015), Glorius & Schondelmayer (2020), Hennig Loeb (2020), Jørgensen (2022), Paul (2023), Stadler et al. (2023)
2) Situational challenges	Newcomer factors (cultural integration and cultural differences, language skills)	9	Henning Loeb (2020), Itkonen et al. (2015), James et al. (2020), Jørgensen et al. (2021), Maue et al. (2021), Ortlieb & Ressi (2022), Reinke & Goller (2022), Rusert & Stein (2023), Wehking (2023)
	Reception factors (discrimination and racism, social integration, students' economic situation)	12	Asghari & Abraham (2023), Chadderton & Edmonds (2015), Fontanari (2022), Glorius & Schondelmayer (2020), Henning Loeb (2020), James et al. (2020), Jørgensen (2022), Jørgensen et al. (2021), Maue et al. (2021), Rusert & Stein (2023), Verwiebe et al. (2019), Wehking (2023)
	Immigration and integration policies	8	Asghari & Abraham (2023), Chadderton & Edmonds (2015), Fontanari (2022), Glorius & Schondelmayer (2020), Ortlieb & Ressi (2022), Paul (2023), Reinke & Goller (2022) Wehking (2023)

criticism of the curriculum, reported mainly from pre-VET programmes in Germany, where students or teachers expressed a need for additional subjects (like mathematics) (Glorius & Schondelmayer, 2020; James et al., 2020; Reinke & Goller, 2022). Other studies addressed challenges related to (a low) availability of language training within VET programmes. Newly arrived immigrant VET students might need supplementary language training, both before and during a

VET programme, but this provision varied and did not exist in all the countries examined in these studies (Chadderton & Edmonds, 2015; Jørgensen et al., 2021). Furthermore, in a study from Germany, James et al. (2020) found that there is a lack of attention to students' heterogeneous language levels and an insufficient focus on grammar and specialised vocational vocabulary during the programme. From Sweden and Finland, studies indicated that VET teachers may vary in how they view their own role in supporting newly arrived migrants' language learning (Henning Loeb, 2020; Mustonen & Strömmer, 2022; Paul, 2023). One study found that some teachers expressed a willingness to develop relevant skills and to extend beyond everyday practices to meet specific needs of immigrant students (Henning Loeb, 2020), whilst another study found that VET teachers expressed frustration and dissatisfaction about being cast in a 'language teacher' role (Paul, 2023).

Critiques of curriculum and language training provision often relate to teachers' perceptions of the limited time available to achieve a sufficient level of vocational and language skills (Choy & Wärvik, 2019; James et al., 2020; Paul, 2023; Reinke & Goller, 2022). For example, a study found that teachers expressed concern that students' language proficiency at the end of pre-vocational programmes might be insufficient for transitioning into ordinary VET (Reinke & Goller, 2022). Programme duration varied across countries and types of VET programmes. Yet, findings from different contexts indicate that teachers and trainers often found course lengths far too short to prepare students for passing advanced-level courses (Paul, 2023), getting familiar with company work culture and practices (Ortlieb & Ressi, 2022), and developing the language skills that are required for transitioning into ordinary VET or finding employment (Reinke & Goller, 2022). James et al. (2020) and Wehking (2023) noted that students sometimes attended additional language classes outside the VET programme, adding to their time pressure.

The final sub-theme under institutional challenges is *organisational barriers*. Chadderton and Edmonds (2015) highlighted some evidence for insufficient contact between organisations that work with refugee issues and those providing education and training in the countries examined in their study. Meanwhile, a study from Switzerland identified coordination challenges between national immigration authorities, authorities responsible for VET, and private actors involved in VET provision, when these actors tried to establish a new pre-VET-programme (Aerne & Bonoli, 2023). However, this study also revealed that several coordination barriers were overcome and that the programme was regarded as a success, mainly due to the flexible implementation, a generous subsidy, and active participation of employers who saw a clear interest in participating (Aerne & Bonoli, 2023; Stalder et al., 2023).

At the school level, organisational barriers were reported mainly from teachers. These barriers were observed in the Swedish studies and include collaboration problems between language teachers and vocational teachers (Paul, 2023), and a lack of resources allocated to classes for recently arrived migrants, due to low priority by school leaders and municipal educational authorities (Henning Loeb, 2020).

Situational challenges

The second overarching theme pertains to *situational challenges*. Following Lambrechts (2020), we conceptualise these as barriers relating to the broad individual circumstances encountered by newly arrived immigrants. We have categorised the sub-themes of this topic into *newcomer factors*, *reception factors,* and *immigration and integration policies.*

Newcomer factors addressed in the studies concern challenges with cultural differences, cultural integration[1] and language skills. Five of these studies described challenges that immigrants faced in adjusting to a new culture in the workplace or school environment (Itkonen et al., 2015; James et al., 2020; Ortlieb & Ressi, 2022; Reinke & Goller, 2022; Rusert & Stein, 2023). Some studies found that divergent norms and values between teachers and students could lead to misunderstandings and negative feedback for certain behaviours, such as, for example, punctuality (James et al., 2020; Ortlieb & Ressi, 2022; Reinke & Goller, 2022). In Finland, Itkonen et al. (2015) found that many teachers relied on stereotypical assumptions about the behaviour of people from certain countries or regions to explain students' educational achievements or lack thereof.

Meanwhile, in a study from Germany, Rusert and Stein (2023) observed challenges related to being used to a different school culture than in the settlement country. Rusert and Stein state that in Germany, lessons promote critical skills, as well as creative and reflective skills, whereas lessons in the refugees' countries of origin were more oriented towards factual knowledge.

Concerning language-related challenges, studies about immigrant students found that a lower level of proficiency in the settlement country language caused stress and difficulties in students' learning situation (Rusert & Stein, 2023; Wehking, 2023) and challenges with transitioning into regular VET and employment (Maue et al., 2021; Reinke & Goller, 2022). In these studies, insufficient language skills were identified as one of the greatest barriers to achieving success in pre-VET or in the school-based part of VET (relating to passing exams).

Reception factors refer to migrants' broader settlement context beyond educational institutions. Most of the 12 studies that address this topic concern refugee students. These studies found that perceived discrimination and racism as well as challenges with social integration hindered refugee students' ability to interact with native peers. For example, research from Germany found that

refugee students experienced both subtle and overt discrimination, sometimes in the form of 'jokes' and devaluation by other students and teachers at school (Rusert & Stein, 2023), and by colleagues and employers in the workplace during apprenticeships (Wehking, 2023). In Sweden, a study found that employers' xenophobic views made it difficult to find work placements for students (Henning Loeb, 2020). Discrimination can be an obstacle to social integration. However, other difficulties related to social integration were more (often) explicitly addressed in the studies. Some studies found that students who attended separate classes for newcomers expressed a desire for more contact with native peers (Glorius & Schondelmayer, 2020; James et al., 2020). Interestingly, Maue et al. (2021) observed a positive correlation between having contact with Germans helping young refugee students and the likelihood of these students entering a regular educational pathway. However, also in the German context, Glorius and Schondelmayer (2020) and James et al. (2020) found that teachers and school authorities did not perceive an obligation to facilitate the integration of refugee students with German students at school.

Concerning economic barriers, some studies from Denmark and Germany highlighted the issue of low wages received by students during both pre-apprenticeship and regular apprenticeship periods, identifying this as a barrier to completing VET programmes (Jørgensen, 2022; Jørgensen et al., 2021; Verwiebe et al., 2019). Jørgensen (2022) observed that in Denmark, partial completion of a VET programme could be seen as a 'positive drop-out' if it led to employment, for instance when bus drivers who obtain a driving license during school-based VET secure relevant jobs (Jørgensen, 2022). Fontanari (2022) noted that apprenticeship contracts in the low-paid sectors could negatively affect students' ability to achieve self-sufficiency.

The eight studies that addressed the sub-theme of immigration and integration policies concerned the impact of legal restrictions on VET students' learning (Fontanari, 2022; Ortlieb & Ressi, 2022; Reinke & Goller, 2022; Wehking, 2023) and reported that such policies can constrain migrants' educational/vocational choices (Chadderton & Edmonds, 2015; Fontanari, 2022; Wehking, 2023). Some studies reported that VET students' unclear residence status may negatively impact learning and social inclusion as students feared deportation (Asghari & Abraham, 2022; Glorius & Schondelmayer, 2020; Reinke & Goller, 2022). Chadderton and Edmond (2015) underscored that dispersal policies could provide immigrants with housing, but limited their access to jobs and training, because immigrants in several countries tended to be housed in municipalities with few work opportunities. Two studies addressed consequences of a German law that states that rejected asylum-seekers could be granted residency if they completed three years of vocational training followed by two years of related work. These two studies discussed challenges of students' social mobility, as it is

impossible to pursue alternative qualification paths and a change of vocational training is only allowed once within this regulation (Fontanari, 2022; Wehking, 2023). As the available apprenticeship contracts were usually located in the low-paid sector (Fontanari, 2022), inclusion of former asylum seekers in the labour market via this route seemed to be narrowed to a few vocational sectors.

Discussion

The purpose of this review was twofold: to map peer-reviewed research from the last decade (2013–2023) in the European context, and to identify challenges in using VET programmes as a means for integrating newly arrived immigrants into the labour market. We have considered the characteristics and central topics of the included studies and thematically analysed the challenges they report. In this section, we discuss some of the possible implications of the findings and point to some gaps within this growing field of research.

In recent years, immigrants' educational and labour market integration through VET has been on the political agenda in several European countries. Our scoping review indicates that this growing political attention has been followed by a relatively small number of published research studies. As of 2023, our research strategy identified 20 studies published between 2013 and 2023 as eligible. Moreover, we have identified an increase in publications after 2022. This may suggest a lag in the production and publication of empirical research on what can be considered a highly relevant policy issue in some European countries, particularly in the light of increased refugee arrivals following 2015, with more peer-reviewed studies expected to follow.

The limited number of European countries in which the studies were conducted may also suggest that VET is not consistently regarded by policy makers as an effective means of integrating newly arrived immigrants across all European countries and hence may not be a central strategy in many countries. In an analysis of labour market integration policies for refugees in Denmark, Sweden, the Netherlands, and Germany from 2015 onwards, Ravn et al. (2022) show that Denmark and the Netherlands prioritised policies that aim to facilitate recently arrived refugees' early labour market entry. In contrast, Sweden and Germany have to a greater extent emphasised 'train-first' educational activities to promote refugees' long-term employment, which may also be reflected in the relatively higher number of included publications in the review from these two countries. Specifically, in Germany, official policy discourages pushing immigrants into the first available job. Instead, the focus is on creating conditions in favour of finding sustainable employment. The trajectory outlined in Germany was a language learning course, and subsequently, a trial period with competency assessment and familiarisation with potential occupations, then

entry into the labour market, with the option of vocational training (Schwenken, 2021). The research on pre-vocational training programmes in Germany included in this review (Maue et al., 2021; Rusert & Stein, 2023), can be seen as part of this broader approach of emphasising education and training. That said, the limited geographical spread of studies may also reflect other issues, such as the language of publication – an issue we address in the limitations section.

In the thematic analysis, we adopted a theoretical approach that moves the focus away from attributing barriers to entry or participation in VET to individual characteristics (Cross, 1981; Lambrechts, 2020). Following Lambrechts (2020), we argue that it is problematic to frame these challenges as individual 'deficits' and thereby placing the responsibility for overcoming them on individuals, as this overlooks the significant influence of structural issues.

The theme of *institutional challenges* emphasises the need to address barriers at the institutional level, to make VET programmes more inclusive, flexible, and better adapted to the resources and needs of newly arrived immigrant students. We categorised the sub-themes in this category to concern *information*, *access*, *course provision,* and *organisation*. While challenges related to information and access are frequently addressed in the context of increasing immigrants' participation in VET (Beicht & Walden, 2019; Jeon, 2019), this review highlights that the provision and organisation of VET programmes may also present important challenges, primarily concerning the local context of single programmes, but also extending to regional and national policy implementation. Prominent issues include inadequate curriculum and language training, and insufficient time to prepare students to meet expected skill levels. While it is difficult to determine to which extent these issues may stem from start-up difficulties of new programmes, this is likely a contributing factor in some of the studies concerning pre-VET programmes. In the German context, Schwenken (2021) highlights a shortage of qualified language teachers and inconsistent course quality, partly due to new providers entering the field after 2015. In contrast, research on two pre-apprenticeship programmes from Switzerland and Denmark (Aerne & Bonoli, 2023; Jørgensen, 2022; Stalder et al., 2023), included in the review, describes these programmes as highly successful, attributing their success to strong commitment and cooperation from state, regional, and private actors. Jointly, these actors took responsibility for developing and implementing new programmes that were adapted to refugees' needs, whilst also being beneficial for participating companies in need of workers. However, it should be noted here that the students in the Swiss study comprise a subset of recently arrived students, as they had passed the initial language requirements and stayed in the programme to the end (Stalder et al., 2023).

In the VET research literature, as also reported in studies in this review, it is well known that insufficient language skills represent a significant barrier to

vocational achievement (Jeon, 2019). For example, research by Maue et al. (2021) on the transition from prevocational classes to regular VET classes in Germany concludes that German language skills are more critical than any other known factors in influencing educational transitions. In our analytical framework, insufficient language skills are categorised as a part of *newcomer factors* within the overarching theme of *situational challenges*, alongside challenges related to *reception factors* and *immigration and integration policies*. The factors within the latter sub-themes – such as legal restrictions, low wages, limited occupational choice, and dispersal policies – represent structural challenges that can have a strong impact on access possibilities, learning outcomes and completion rates for recently arrived immigrants in VET, which does not seem to be widely recognised in the research field. For instance, limitations imposed by uncertain residency status or restricted vocational pathways may foster insecurity and limit refugees' career choices and opportunities for advancement (Wehking, 2023).

We saw in some German studies that fears of deportation can negatively affect learning (Fontanari, 2022; Glorius & Schondelmayer, 2020; Reinke & Goller, 2022). Also, other situational barriers recently arrived immigrants face can be associated with stress, which again may affect learning and well-being inside and outside the learning situation. Hence, such situational factors can, in the short and long run, negatively affect students' integration in education and working life. Outside the research field of immigrants' VET participation, it has been broadly established that well-being and mental health can impact educational achievements (e.g., Mælan et al., 2018) and that teachers, school counsellors and other school staff can contribute to students' resilience and mastery in the face of stressors (Masten et al., 2008; see also Mælan et al., 2019).

Research gaps

Chadderton and Edmonds (2015) describe a lack of European research on refugees' access to and experience of VET, particularly regarding structural and institutional barriers to participation, as opposed to individual barriers. Our review has shown that since 2015, a growing number of the included studies have begun to address this gap, especially in German-speaking countries (Germany, Switzerland, and Austria) and some Nordic countries (Sweden, Denmark, and Finland). A comparative perspective is also provided by Jørgensen et al. (2020), who explore similarities and differences in access to and completion of VET for refugees in Austria, Germany, and Denmark. However, based on our analysis of the included studies, we have identified several areas where there is a need for more research.

First, most of the identified research is about refugees while there is little knowledge on other recently arrived migrants' participation in VET. This is unfortunate, given the high level of mobility of labour migrants and their

children in Europe. Second, there is a lack of research about the experiences and perspectives of employers and instructors who oversee the training of apprentices in working life in dual VET. A third research gap concerns teachers' practices and perceptions of teaching and training newly arrived refugees and other immigrant students. Only a few of the identified studies addressed this topic. For instance, there is limited knowledge about how VET teachers approach the teaching of second language learners (Henning Loeb, 2020; Paul, 2023), and about how they address diversity and interculturality in their classrooms (Itkonen et al., 2015). Also, little research has addressed how immigrants' existing knowledge can be supported and acknowledged in VET (Mustonen & Strömmer, 2022). Some studies pointed to the challenges that may arise due to cultural differences between teachers and students and highlighted the heterogeneity of recently arrived students. We need more knowledge about how VET teachers approach such challenges and in which ways their views on diversity inform their practices. Moreover, some studies from Germany and Switzerland address pre-vocational courses, but there is also a lack of studies about teachers' and other training instructors' experiences of such courses (Reinke & Goller, 2022).

As noted in the introduction, different European countries have different VET systems. In addition, labour market needs, educational policies, immigration policies, and reception atmospheres may differ. Comparative studies between and within countries would be beneficial for highlighting similarities and differences across different institutional and policy contexts. Moreover, there is a need for quantitative research to learn more about the prevalence of certain phenomena within and across different local and national contexts. For example, there is a need for quantitatively mapping of which educational provisions have the highest completion rates and the challenges and positive aspects teachers and students encounter in different types of course provisions. In this way, both success factors and barriers that may interact with different contexts can be identified.

Finally, longitudinal research – particularly from students' perspectives – would be beneficial. Through this, we may gain insight into how barriers may accumulate over time and obtain knowledge about experiences and outcomes during critical transitions into and through VET pathways.

Limitations

Our method was informed by a scoping review approach to examine and describe a broad and dynamically developing field and to identify knowledge gaps and clarify core concepts (Tricco et al., 2018). Even though this systematic approach aimed to reduce bias and increase transparency and rigour, it entailed some limitations in terms of time and resources. First, for the data collection, we selected two internationally indexed databases, WoS and Scopus. Both databases

are considered to have limited coverage of publications in the social sciences and humanities, and other research outlets such as books and publications in languages other than English (Aksnes & Sivertsen, 2019). To partly address this limitation, we used a third database, Education Source.

In general, the literature in this field can be described as fragmented and interdisciplinary, and relevant literature, such as research reports, can be published in other channels than peer-reviewed journals. These research publications could provide valuable insights complementing the peer-reviewed studies, especially in countries where such reports are commonly published in non-English languages. For example, in Norway, which is not represented in this review, several research reports have been published in Norwegian on the topic of developing different VET models that accommodate immigrants' needs (Hellang & Espegren, 2022; Høst & Reymert, 2017; Kindt et al., 2024; Leirvik & Staver, 2019). In summary, an important limitation of our study is that our sample was restricted to English-language publications, mainly peer-reviewed journal articles. To address some of these limitations, we used supplementary searches, comprising backward and forward snowballing. These are typical strategic search strategies used in systematic reviews in the social sciences.

Finally, this review covers studies published up to 2023 and thus, excludes newer studies published at a later stage. This is a common limitation of review studies that rely on secondary data, as they may not reflect the most recent developments when published. However, future review studies may expand the search period and build upon this review's findings.

Concluding remarks

This scoping review has mapped the available research on the use of VET programmes as a means for integrating newly arrived immigrants into the labour market. While integration policies vary across countries regarding the role of education and training in securing labour market participation for immigrants, VET programmes have the potential to facilitate this transition. However, our findings highlight numerous institutional and situational challenges that immigrant students who pursue a VET pathway may encounter. These challenges are shaped by diverse local and national contexts, where policies across different domains – education, labour, integration, immigration – strongly influence VET practices. Consequently, these summarised findings should not be generalised to other national contexts, and in some cases not even to other regional contexts in the same country. Institutions that design VET programmes for recently arrived immigrants could, however, consider these challenges for their own context, using the insights presented here to better understand the

wide range of factors that may hinder this underrepresented group and support their successful inclusion in VET.

Endnote

[1] By 'cultural integration' we refer to *knowledge* about common codes and cultural practices in the new context (cf. Heckmann, 2005); the term does not equate assimilation. Meanwhile, challenges with cultural differences can occur regardless of new residents' level of cultural integration.

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Pre-vocational training for refugees in Switzerland: Characteristics of workplace learning

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Abstract

Our explorative study focused on the analysis of workplace learning in Swiss companies offering a one-year pre-vocational programme (PAI) to young persons with a refugee background. We included three companies in the plumbing, commercial, and horticultural sectors, interviewing an in-company trainer and a former PAI apprentice from the same company in each sector. Drawing on a model of the quality of learning environments in a workplace setting (Filliettaz, 2012; Fuller & Unwin, 2003), we investigated how trainers and PAI apprentices perceived affordances, that is, social and structural resources provided in the workplace, and PAI apprentices' commitment, referring to their individual prerequisites to make use of these affordances. Our results emphasise the importance of an expansive workplace learning environment that enables PAI apprentices' progressive involvement in professional tasks, and the crucial role of trainers' and co-workers' guidance and support. Our results also showed that PAI apprentices were interested, motivated, and took initiative in the workplace, though their full involvement was undermined by their often-difficult life circumstances.

Keywords: refugees, pre-vocational training, workplace learning, vocational education and training, Switzerland

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Introduction

Access to vocational education and training (VET) for refugee persons

The United Nations Refugee Agency reports that a total of 117.3 million persons had been forced to flee their homes worldwide at the end of 2023, with 37.3 million of these granted refugee status (UNHCR, 2024a). In Europe, this number rose to 22.5 million in the same timeframe, mostly arriving from Ukraine, Türkiye, and the South Caucasus region (UNCHR, 2024b). In April 2024, 76,695 asylum seekers, mainly originating from Syria, Venezuela, and Afghanistan, sought protection in the European Union countries (Eurostat, 2024). Professional and social integration thus represents a significant challenge for both the forcibly displaced persons and the resettlement countries (Fedrigo et al., 2023), not least due to the refugees' often traumatic pasts (Udayar et al., 2024).

Professional integration is fraught with challenges for newcomers (Hynie, 2018). VET represents a suitable option for achieving sustainable access to the local labour market, although it is often still difficult to enter (Atitsogbe et al., 2020). Consequently, a few European countries have recently developed measures to facilitate refugees' access to VET (Aerne & Bonoli, 2023). For example, Austria, Denmark, Germany, and Switzerland took advantage of the existent dual VET system, where most of the training is work-based (Bonoli & Wilson, 2019; Busse et al., 2024; Jørgensen et al., 2021). In Austria, an integration year is offered for recognised refugees and Syrian asylum seekers who are expected to receive residence permission and have completed compulsory schooling (Jørgensen et al., 2021). As part of the Adult Education Initiative, this 'integration year' either comprises vocational preparation and guidance with career orientation, application training, training for vocational qualifications, language skills, and on-the-job training or offers the possibility to complete a mandatory school-leaving qualification via the second-chance route (Busse et al., 2024). Denmark launched the Basic Integration Education initiative in 2016, which is a two-year programme offering both schooling and practical training (European Website on Integration, 2024). Germany offers vocational preparation schemes at vocational schools for young refugees, where they receive language support, vocational orientation, and assistance with finding a profession or initiating training. In Switzerland, basic language (or literacy) courses, vocational guidance, and one-year bridging courses aimed at integration into VET are offered. A recommendation issued by the State Secretariat for Migration (SEM, 2023) assists the local cantonal authorities in defining these preparatory measures (Busse et al., 2024). In addition, a pre-apprenticeship programme to support integration (PAI), preparing refugees for starting a regular dual VET programme, was developed (Scharnhorst & Kammermann, 2019).

Swiss pre-apprenticeship to support integration (PAI)

The PAI, introduced by the Swiss Federal Council in 2018 for 'motivated refugees and temporarily admitted persons' (Scharnhorst & Kammermann, 2019, p. 16), is a one-year pre-vocational programme providing workplace training combined with courses for language proficiency as well as vocational and general knowledge at vocational schools. In some professions and/or cantons, it is also combined with courses at branch training centres. It aims to prepare apprentices with a refugee background to join a regular VET track and to introduce them to the norms and values of the Swiss labour market (Scharnhorst & Kammermann, 2019). The SEM, in cooperation with actors in 18 cantons and more than 10 professional training organisations (PTO), developed PAI programmes in approximately 20 occupational fields. The PAI turned out to be highly popular, as the number of participants rose from some 800 in 2018 to more than 4,000 up to 2023, with a completion rate of more than 80% and approximately two thirds of the participants starting a two- or three-year apprenticeship after completion (Stalder & Schönbächler, 2024).

Learning environments in (pre-)apprenticeships in Switzerland

In general, VET and pre-VET programmes targeted at native and other citizens in Switzerland are conducted at the upper secondary level, and learning generally takes place in three different locations, namely

- workplace learning in host companies, where apprentices spend three and a half or four days a week (this number differs for PAI in some cantons) while taking part in the company's production processes,
- classroom learning at vocational schools one or one and a half days per week (this number differs for PAI in some cantons), and
- intercompany courses in branch training centres that combine and complement practical workplace and theoretical classroom learning.

For PAI, the cantons or the PTO decide whether they offer a dual (learning in vocational schools and host companies) or a trial (learning in vocational schools, host companies, and intercompany courses) model. The cooperation between companies, schools, and branch centres, prescribed in the Vocational and Professional Training Act (Swiss Confederation, 2002), enables connectivity of the apprentices' learning and thus fosters their learning success (Sappa & Aprea, 2012). Although not always implemented successfully in apprenticeships (Kammermann & Frey, 2024), an evaluation study shows that such cooperation is established to a certain extent in PAI (Michel et al., 2023; Stalder et al., 2024).

Workplaces as important learning environments

Based on the theoretical considerations of Lave and Wenger on situated learning, the analysis of learning environments in the workplace and their effect on learning has a long tradition (Lave & Wenger, 1991; Wenger, 1998). To date, numerous researchers have focused on workplace learning in VET. The work of Billett (2001, 2002) and Fuller and Unwin (2003, 2004, 2013) seems particularly significant in our context. According to Billett, 'The way workplaces afford opportunities for learning and how individuals elect to engage in activities and with the support and guidance provided by the workplace, is central to understanding workplaces as learning environments' (2001, p. 209).

Fuller and Unwin (2003) analyse learning environments in apprenticeships according to the extent to which they facilitate learning by participation. They argue that learning environments can be categorised on a continuum between expansive and restrictive, with expansive learning environments promoting stronger and richer learning.

Many authors have referred to these concepts when analysing workplace learning in VET (e.g., Doroftei et al., 2018; Felder et al., 2021; Schmid et al., 2024).

Filliettaz's interactional model of workplace analysis

Filliettaz (2012, 2013) developed a specific model for analysing workplace learning environments in two-year apprenticeships on a microlevel, which serves as a diagnostic instrument for the analysis of interactions between trainers and apprentices. This model combines the abovementioned considerations by Billett (2001, 2002) and Fuller and Unwin (2003, 2004). It relates to affordances, that is, social and structural resources provided in the workplace, on the one hand, and to engagement, referring to apprentices' individual and personal prerequisites to make use of these affordances, on the other hand. Both affordances and engagement move along a continuum from restrictive to expansive. A microanalytical look at the verbal interactions between trainers and apprentices in the workplace serves to show how trainers provide learning opportunities for apprentices during work activities and how learners exploit these opportunities. Affordances include, for example, access to productive activities offering numerous learning opportunities, appropriate guidance from experts, and sharing knowledge. Engagement, on the other hand, shows that learners are able and willing to participate in the activities available to foster learning. The characteristics of Filliettaz's model for training environments are shown in Figure 1.

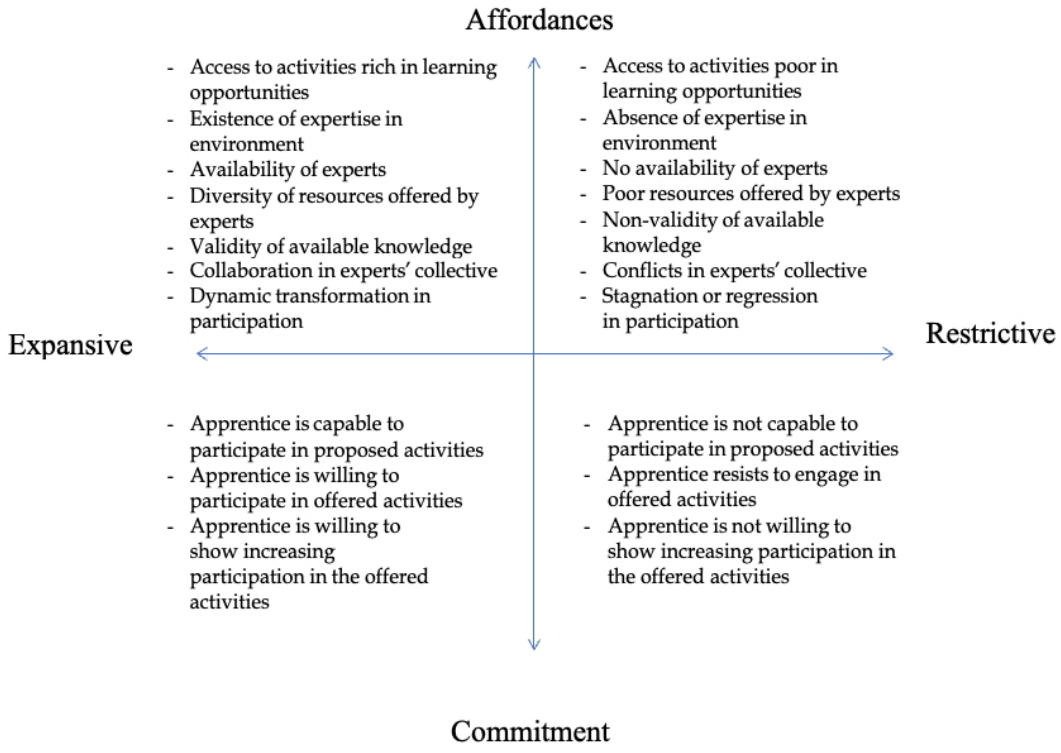

Figure 1. Factors in qualitative variation of training environments (Filliettaz, 2012, p. 75, translated).

According to Fuller and Unwin (2003), expansive learning environments in apprenticeships offer numerous learning opportunities, with apprentices being seen as learners who can contribute their own opinions and are guided in a progressive manner. Restrictive learning environments in apprenticeships, on the other hand, offer few learning opportunities and apprentices are considered as workers who are passive performers and receive little guidance. In contrast to Filliettaz, Fuller and Unwin's considerations do not relate exclusively to the microlevel of the learning and working environment in the company, but also include factors outside this microenvironment that '[connect] learning across time and space' (Fuller & Unwin, 2013, p. 3), such as learning opportunities outside the workplace (e.g., schools, intercompany courses, crossing boundary learning) and apprentices' choice of career after the apprenticeship. Their characteristics for learning environments are presented in Table 1.

Table 1. Expansive-restrictive continuum of learning environments (adapted from Fuller & Unwin, 2003, p. 411).

Expansive	**Restrictive**
Participation in multiple communities of practice inside and outside the workplace	**Restricted participation in multiple communities of practice**
Primary community of practice has shared 'participative memory', cultural inheritance of apprenticeship	Primary community of practice has little or no 'participative memory': no or little tradition of apprenticeship
Breadth: access to learning fostered by cross-company experiences built into programme	**Narrow: access to learning restricted in terms of tasks/knowledge/location**
Access to range of qualifications including knowledge-based vocational qualification	Access to competence-based qualification only
Planned time off-the-job including for college attendance and for reflection	**Virtually all-on-job: limited opportunities for reflection**
Gradual transition to full participation Apprenticeship aim: rounded expert/full participant	**Fast – transition as quick as possible Apprenticeship aim: partial expert/full participant**
Post apprenticeship vision: progression for career	**Post-apprenticeship vision: static for job**
Explicit institutional recognition of, and support for, apprentices' status as learner	Ambivalent institutional recognition of, and support for, apprentice's status of learner
Named individual acts as dedicated support to apprentices	**No dedicated individual ad-hoc support**
Apprenticeship is used as a vehicle for aligning the goals of developing the individual and organisational capability	**Apprenticeship is used to tailor individual capability to organisational need**
Apprenticeship design fosters opportunities to extend identity trough boundary crossing	**Apprenticeship design limits opportunity to extend identity: little boundary crossing experienced**
Reification of apprenticeship highly developed (e.g. trough documents, symbols, language, tools) and accessible to apprentices	**Limited reification of apprenticeship, patchy access to reificatory aspects of practice**

Note: Characteristics included in this paper's analysis model are highlighted in bold.

As described above, affordances refer to the resources available in work environments that support workers and apprentices in learning through their participation in the company's activities (Billett, 2001; Filliettaz, 2012). These resources, shaped by social and organisational structures, include access to tasks that offer rich learning opportunities, the presence of expertise within work teams, and the availability of experienced colleagues willing to share their knowledge and guide less experienced workers, such as apprentices. Additionally, these resources encompass support that is tailored to the needs of novices, indirect learning through observation or listening, the overall quality and relevance of the knowledge circulating within the workgroup, as well as the additional resources provided for learning. Workers/apprentices can actively use the available resources in their work environments to foster learning. This pertains to the concept of commitment. Forms of individual commitment include the workers'/apprentices' ability to participate in the productive activities made accessible to them, as well as their willingness, capacity, and motivation to engage in these tasks and the associated learning processes. Commitment is influenced by the alignment of the activities with workers'/apprentices' current abilities and skill levels. When tasks are appropriately matched to their capabilities, workers/apprentices are more likely to engage fully and invest in both the activities and the learning opportunities they provide. There may also be resistance or rejection of certain forms of knowledge or learning opportunities, with some workers/apprentices opting to remain in roles that offer limited exposure to the need to renew or expand their skill sets. Based on Fuller and Unwin (2003, 2004, 2013), affordances and commitment can either be restrictive or expansive.

Current study

As displacement increases, both refugees and resettlement countries face major integration challenges. However, preparatory programmes like PAI can help refugees meet the entry requirements for VET and access sustainable career paths. Given its growing popularity (Stalder & Schönbächler, 2024) and pivotal role in refugee persons' long-term professional integration, we conducted a study to gain an understanding of workplace training and learning environments during PAI from the perspective of both trainers and PAI apprentices utilising an explorative approach. More specifically, based on Filliettaz's model (2012, 2013) combined with Fuller and Unwin's characteristics (2003), the following research questions guided our analyses:

1) How do in-company trainers and former PAI apprentices perceive workplace affordances during the PAI year and their apprenticeships?
2) How is the commitment of PAI apprentices described by in-company trainers and former PAI apprentices themselves during the same period?

The combination of the two models allowed us to expand Filliettaz's microanalysis of a workplace learning environment by including Fuller and Unwin's contextual boundary-crossing characteristics regarding learning across different locations and over time. It also enabled us to consider the context in which VET occurs. Based on the two models, we selected those characteristics that were relevant according to our dataset. The resulting categories for our study are shown in Table 2.

Table 2. Workplace learning characteristics.

Category	**Subcategory**	**Description**
Affordances	1. Adapted support for PAI apprentices	Trainers and colleagues adapt their support to apprentices' skills
	2. Access to learning activities	Amout of appropriate learning possibilities for apprentices
	3. Trainer's personal involvement	Trainers are implicated in apprentices' (professional and personal) progress
	4. Availability of trainers and colleagues	Trainers and colleagues invest time and support in apprentices' (professional and personal) development
	5. Inclusive cultural enterprise	Company embraces diversity
	6. Collective collaboration	Exchanges within the team; between company, vocational schools, and inter-company course
	7. Vision and the role give to the PAI apprentices	Apprentices are seen as learners or expert workers
	8. Multiple communities of practice	Apprentices are part of communities of practice (companies, vocational schools, and inter-company courses) and link them (boundary crossing)
	9. Expertise of trainers and colleagues	Experience and expertise are passed to learners
Commitment	1. Ability to commit	Apprentices use resources in their work environment for learning
	2. Interest in becoming involved	Apprentices are committed to their training and the development of professional identity
	3. Active participation	Apprentices are proactive in work-processes

Methods

An ongoing research project, funded by the Swiss National Science Foundation, (SNSF Nr.100017_215130), aims at understanding the role of PAI workplace guidance in developing refugees' agency, taking into account the particularities of their trajectories and life circumstances. The research is based on interviews with in-company trainers, former PAI apprentices, and cantonal stakeholders in the PAI programme, such as coaches, career counsellors, social workers, and teachers. Moreover, professional practice analysis groups with in-company trainers comprise a further component of our research (Felder et al., 2024).

We adopted a qualitative approach to understand the learning environment in the workplace from the perspective of both trainers and former PAI apprentices, appreciating this method's suitability for exploring complex and emerging phenomena (Pratt & Bonaccio, 2016). We chose pseudonyms for both trainers and former PAI apprentices when presenting our results (see Table 3). Our three case analyses were in the plumbing, commercial, and horticultural sectors, each of which includes an interview with an in-company trainer and a former PAI apprentice within the same company. We chose to interview former PAI apprentices to give them the opportunity to gain a better perspective on their PAI training. However, this resulted in a blurred temporality in participants' accounts and made it difficult to identify an event as specific to the PAI training, since they all continued their apprenticeships within the same company. Therefore, we decided to consider their learning pathway as a whole, encompassing their experience of VET through the PAI year and the following two- or three-year apprenticeship. Our choice to focus on six participants was motivated by the fact that in all three cases, the trainers and PAI apprentices were working together in the same company and were the only paired interviews available in our dataset at that time. Their perspectives ensure data triangulation, which combines data originating from different sources and collected at different times, in different places, or from different people (Flick, 2020). In accordance with our theoretical framework and to address our research aims, we employed a hybrid deductive and inductive approach (e.g., Fereday & Muir-Cochrane, 2006), mobilising thematic analysis of six semi-structured interviews (Braun & Clarke, 2006).

Participants and procedure

After ethics approval, we recruited three former PAI apprentices and their PAI trainers by asking members of our personal networks and by contacting the cantonal PAI programme managers to build our collaboration network and contact list. We conducted semi-structured interviews lasting from 68 to 99 minutes with three former PAI apprentices from refugee backgrounds aged

between 24 and 35. They came from Afghanistan and Iraq and arrived in Switzerland between 2013 and 2015. At the time of the interviews, all had completed a two- or three-year (regular) apprenticeship. Three other semi-structured interviews were conducted with the trainers in charge of the three selected former PAI apprentices' in-company training. These lasted between 48 and 75 minutes. The trainers were either owners and founders of the company or held a management position while being qualified for in-company training.

Table 3 provides details on the interviewees' demographics, including information on trainers/apprentices from the same company.

Table 3. Interviewees' demographics.

	Pseudonyms	**Gender**	**Age**	**Work domain**	**Qualification and current work**
Apprentices	Amir	M	24	Plumbing, *Company 1*	VET Diploma, work in *Company 1*
	Nesrin	F	35	Administration, *Company 2*	VET Diploma, job searching
	Nemat	M	35	Horticulture, *Company 3*	VET Certificate, work in *Company 3*
	Pseudonyms	**Gender**	**Company size**	**Work domain**	**Qualification and current work**
Trainers	Paul	M	Small–medium	Plumbing, *Company 1*	Qualified trainer, Owner
	Sarah	F	Large	Administration, *Company 2*	Qualified trainer, Manager
	David	M	Small–medium	Horticulture, *Company 3*	Qualified trainer, Owner

Interview guidelines

The interviews conducted with former PAI apprentices were divided into five sections. The first section investigated participants' life trajectories and first impressions of the PAI programme, the second section focused on concrete learning situations in the workplace, the third section addressed career choices, the fourth section investigated the strategies they used to learn professional tasks and specific vocabulary, and the last section gathered their conclusions on their PAI experience and career prospects. For the trainers, the interviews were also composed of five sections. The first section gathered information about their job

description and the company's preparation for the PAI. The second section described the workplace guidance, including the guidance's description, specificities, and challenges. The third section focused on the PAI apprentices and their career choices, relationships, learning, and extra-professional lives. The fourth section gathered information about the PAI programme's context, and the last section investigated limits and success factors of workplace guidance in PAI. For this study, we mainly focused on excerpts that addressed the learning environment and apprentices' engagement.

Analysis procedure

Two researchers first coded a trainer's interview based on a codebook elaborated according to Filliettaz's model and Fuller and Unwin's expansive-restrictive characteristics of learning environments in a deductive setting. They then independently coded another interview each, and the second researcher read and validated the codes. They met to discuss all uncertainties and hesitations until they reached a consensus on a final codebook. Lastly, the other two researchers reviewed the coding for validation, and the two main coders agreed on a few adjustments. The same procedure was used for the apprentices' interviews.

Results

According to our theoretical model of workplace learning characteristics (see Table 2), and to answer our two research questions, our results are organised into two domains, namely affordances and commitment. A total of eight categories for the affordances domain are described, and three for the commitment. For each category, we first described the perspectives of the trainers and then the perspectives of the former PAI apprentices.

Affordances

As part of affordances, we first identified *Adapted support for PAI apprentices* as frequently emerging from participants' discourses. Trainers put effort into adjusting the language, tasks, and written materials to match the apprentices' skill levels, ensuring clear communication and mutual understanding. They also adapted the degree of complexity of the tasks asked of PAI apprentices, which they then gradually increased in line with the apprentices' abilities. For example, Sarah explained that she gave Nesrin extra time to learn the local language and to deal with private issues that were affecting her mental availability and concentration. This understanding attitude seemed to have positive outcomes on PAI apprentices' training, as David explained: 'This may also have to do with the fact that you give them responsibility and trust. Then they may also be willing to invest more themselves'. From the perspective of the PAI apprentices, they

overall acknowledged and were grateful for the support provided by their trainers. However, we noticed that adapted support was not always compatible with production constraints. For example, Nemat explained that at first, he mostly just observed due to time pressure. Looking back at when he was an apprentice, he described a situation where he took the initiative to complete a task but was refused by his trainer. He asked, 'Hey, can I do it like this?' Then he [his trainer] said, 'No, I will do it'.

The second category, *Access to learning activities*, refers to the amount of appropriate learning opportunities. Trainers reported letting their PAI apprentices perform many different tasks. Their strategies comprised either explaining each step of the task first to offer a global perspective or opting for a learning-by-doing approach where PAI apprentices directly reproduced what their trainer showed them. They all noted tolerating and being patient with apprentices making mistakes, as Sarah voiced: 'The apprentice must make mistakes. That's how you learn, you learn by falling down and getting up again'. From the perspective of PAI apprentices, access to learning activities allowed them to learn new, useful skills and progressively perform more complex tasks, as Amir stated: 'Then, I think at the end of the PAI, they gave me things that were a bit complicated'. He also mentioned that he became more committed when he realised that his trainer never got angry when he made mistakes.

The third category concerns the *Trainer's personal involvement* in PAI and could take different forms and intensities, such as being available for PAI apprentices to talk about different issues they encountered, freeing up time to deal with personal problems, offering financial help for extra language or driving courses, or nurturing the relationship with their PAI apprentice. Sarah explained:

> You have to believe in the person you are hiring by saying, here we are, we have to lead them to success. [You have to know] that there is therefore a risk of failure, and that, for everything we do, there is a risk of failure. But the aim is to lead them to success. And [to have] patience, understanding their life path and creating a bond. Without this link, it's not possible. You can train anyone, but you have to train people by understanding their background, because they have a very specific profile. And you must have confidence in them.

Sharing the trainers' perspectives, PAI apprentices also seemed to consider their trainer's involvement as expansive, as trainers did not hesitate to vouch for their apprentices to ensure that they had the required competences to successfully complete the PAI. Nemat explained that his trainer gave him a lot of support and travelled with him during the weekend to teach him more about gardening and plants. Amir said his trainer suggested he take some time off to deal with his personal issues: 'He'd say, "If you need one or two days to stay at home, then you can". He was really, empathetic'.

The fourth category identified is the *Availability of trainers and colleagues* to support PAI apprentices in daily activities. Trainers were available to talk at the

workplace, as David voiced: 'My employees know that I'm in the shop at 6 a.m. and anyone can pop in to see me at any time before work'. Paul added that he could be reached by video call in case the apprentices need to double-check something at the construction site. PAI apprentices reported that trainers were supportive and available to them. For example, Nemat said, '…I also had a good trainer. He gave me a lot of support and also [was] a very good colleague'. To illustrate his trainer's availability, Amir explained that his trainer would stop working for a few hours to help him with his homework. PAI apprentices also all mentioned supportive colleagues who were reassuring at the workplace. For example, Nesrin said she could turn to them when she could not understand a customer's accent. Amir added that his colleagues had been an important part of his motivation to work: 'One of the motivating factors was my colleagues. They were really nice. Every time I'd come to them, I'd find out what they were doing, and then I'd ask them a lot of questions. What are they up to, where are they? Why are you doing this? Why are you doing that? They took their time explaining things to me. I'm here to learn, to watch, to learn a trade'.

The fifth category refers to having an *Inclusive cultural enterprise*, whose members foster a positive attitude and value PAI apprentices' previous life and work experience. In all three cases, PAI apprentices entered in an open-minded working environment, facilitated not only by their trainers, but also their colleagues. For example, Sarah introduced Nesrin to all her colleagues and encouraged Nesrin to take breaks with them to feel like a part of the organisation from the start. Sarah also insisted that her organisation acknowledged that apprentices' mistakes are part of the learning process. In the same vein, Paul explained that his employees were aware of the PAI apprentices: 'They were understanding from the start and… they saw that you couldn't ask the same things [of a PAI apprentice] as of someone from Switzerland… who didn't have the… language barrier'. David explained the importance of being open-minded in a field involving manual labour, and the fact that Nemat had been open to sharing about his personal life helped his integration in the team and to build friendships. For their part, PAI apprentices described a supportive environment and cultivating good relationships with co-workers. For example, Nesrin felt her colleagues were already prepared and aware of what a PAI meant and were understanding. All three said they became used to going to social events with their colleagues, such as joint meals or ski trips.

The sixth category refers to *Collective collaboration* through active exchanges and discussions within the team, as well as with the vocational school, intercompany courses, and cantonal stakeholders. The trainers overall reported an effective collaboration with other professionals involved in the PAI, such as counsellors, teachers, and cantonal coordinators. This collaboration seemed to foster a strong support for PAI apprentices, as David stated,

> Yes, we had quite good contacts because the people accompanying him [Nemat] were from his environment, from the [courses] for foreign speakers [language courses], the teacher who supported him there. Then there was the community of [name of city], where he lived at the time and where he still lives today. We also felt good support there, actually.

However, our results were mitigated regarding collaboration with PTO (which seemed nonexistent) and finding extra language courses. Such was the case for Sarah, who put a lot of effort into contacting the vocational school and PAI counsellors, but eventually had to finance the courses for Nesrin herself. From the perspective of PAI apprentices, Nemat and Amir both received extra language courses with a tutor or with a teacher from the vocational school. This support was important for them, and the tutor became one of Amir's close friends. Nemat stated, 'Yes, the teacher gave me help, yes, after school on Tuesday, every Tuesday evening, we had 1.5 to 2 hours to go over the work that I had done during the week. […] He even gave me a notebook so that I could write every day about what I was doing'.

The seventh category identified is the *Vision and role given to the PAI apprentice*, who could be considered either as an active worker or as a passive performer. In our three cases, trainers reported considering their PAI apprentices as active performers. Paul stated, 'There's no point in taking them on and letting them sweep the workshop all week. The aim is for them to fit in, to learn a trade that they're interested in doing'. They were also considered learners and were granted the freedom to make mistakes. This point was highlighted by Sarah, who made sure all her colleagues were on the same page regarding apprentices in general. For PAI apprentices, Nesrin was the only one to reflect on her role as an apprentice. While it seemed that she shared her trainer Sarah's vision about the learning process, she explained that she mostly executed the demanded tasks without question: 'I did what she said, whether I agreed or not, I didn't even think about it. […] I wasn't creative in that respect. I just took it as it was, I did it as she told me'.

The eighth category identified, *Multiple communities of practice*, describes the participation of PAI apprentices in the various communities of practice inside and outside the company, and the links and transfer between companies and vocational schools. We obtained nuanced results regarding trainers. On the one hand, David reported having discussions with teachers from vocational school about assessments. In contrast, Paul suggested that there was a gap between the theory learned in school and practice: 'Sometimes he'd [Amir] tell us, "That's not how you should do it, we learned that in classes", and I say, "Yeah but, well, the situation is such that that's it".' We considered the latter point as restrictive for the learning process, highlighting a misalignment between vocational schools and companies, potentially creating confusion for apprentices. Nemat was the only one concerned by this topic and reported receiving support from his

vocational teacher to learn about specific elements of his trade, such as materials and plants, which contributed to building links between practical knowledge, in this case outside the workplace, and learning the trade.

Lastly, we identified the category *Expertise of trainers and colleagues* who provide fair and safe working conditions for apprentices. Sarah was the only trainer to give clear examples where her expertise obviously influenced her PAI apprentice's learning process in an expansive way. She would provide a solution to every problem while teaching her how to unravel it on her own and encouraged her to ask for specific help: 'When she [Nesrin] says, "This is a bit difficult, I'm having trouble". OK, so you have to target the problem first, because it's not the whole activity, it might be something specific. OK, you're having trouble here, so what can I do for you? Can you help me create an Excel spreadsheet?'. PAI apprentices all reported having learned many skills from their experienced trainers. Amir, Nesrin, and Nemat all admired their trainers and regarded them as role models, as illustrated by Nesrin: 'I can see my trainer typing with 10 fingers. When I wasn't working, I installed the programme to start with, I wanted to be like her, because she writes, I don't know, 100 words per minute, I think! Because she's so fast'.

Commitment

Commitment here refers to the specific ways in which apprentices make use of the learning resources available in their working environments. The modalities of individual engagement included the *Ability to commit*, which comprised elements that enabled the apprentices to devote themselves fully to their training. Many external factors were identified by trainers as preventing PAI apprentices from concentrating on their training, such as family problems, administrative issues, and not being able to travel due to temporary permits. For example, Sarah noted she thought Nesrin's goal to start a VET programme was challenging, as she was a single mother dealing with issues related to her temporary permit. Paul noticed it was more difficult for PAI apprentices when their family was not at their side. In this sense, we could see that refugee apprentices' life circumstances can affect their ability to be fully involved in their training.

Interest in becoming involved covers the actions taken by apprentices to demonstrate their interest in committing to their training, as well as the professional identity associated with their trade. The trainers all saw their PAI apprentices as determined, as Sarah stated about Nesrin: 'You could feel the drive, the desire to succeed in life. She had goals to reach, and she did everything she could to achieve them'. PAI apprentices were able to identify which behaviours appealed to their trainer, such as asking questions, being punctual, and being available to help co-workers, as Nemat noted: '"Hey, Nemat, can you

do this for me?" When I have time, I never say no. And I also have fun because there is something to do, right?'

The last category, *Active participation*, includes apprentices' motivation and initiative-taking in the workplace, also extending to other extra-professional elements. All three trainers described their PAI apprentices as very involved in the learning process, motivated, punctual, solution-oriented, and taking initiative. For example, Paul described Amir as very motivated: 'He almost took the tools out of our hands to try it himself…'. David described Nemat as a worker in the following:

> He's extremely independent. […] I can send him to larger construction sites independently and he comes up with the ideas, he implements them, he communicates excellently with customers. The way he communicates with us, he also manages that with customers, even if he makes a mistake. That's usually not a problem because he stands by it, he communicates, and he comes around.

From the PAI apprentices' perspectives, Nesrin explained that she was curious and put a lot of effort into learning new words and work techniques to be more efficient. Nemat gained enough confidence to share his ideas for improvement, which were approved by his boss. Amir explained why he enjoyed his job, showing his determination and active engagement in his training and work in general: 'I'm someone who's really motivated to do things that are hard, things that are really heavy. I don't know, I've got a physique that is really, that's made for it'.

Discussion

In this study, we aimed to explore the characteristics of workplace environments through the analysis of affordances and former PAI apprentices' engagement on an expansive-restrictive continuum (Filliettaz, 2012; Fuller & Unwin, 2003) from both trainers' and apprentices' perspectives. Our analyses showed a rather expansive learning environment characterised by trainers' strong engagement with and support of their PAI apprentices' learning. Trainers gave apprentices access to a variety of tasks, made themselves available, provided extra time to learn the local language and deal with private issues, helped with and freed time for school assignments, and gave extra explanations to foster apprentices' understanding of their tasks. Trainers were strongly engaged in their PAI apprentices' personal and professional well-being, offering emotional and financial support (e.g., for extra language courses, for driving licences, or to help the apprentices to succeed in their training). It was important for trainers to make sure PAI apprentices were included in the enterprise during working hours as well as in extra-professional activities with the team. Finally, colleagues also played an important role, fostering a positive, motivating, and supportive

learning environment. A high level of commitment on the part of the PAI apprentices has also emerged from our analyses: they were interested and motivated, and showed initiative when it came to future work and learning new skills in the company.

Aspects of a more restrictive learning environment were related to factors such as obtaining administrative permissions to access certain work documents as a PAI apprentice. Moreover, it could be assumed that in an over-structured learning environment, PAI apprentices are less encouraged to take initiative and ownership of their work. When attempting to establish a connection between learning environments and applying school-acquired knowledge in the workplace, in one case, we noticed resistance and a lack of readiness on the trainer's side. However, in another case, the former PAI apprentice highlighted the importance of the connectivity between the vocational school and the workplace, appreciating the extra time and learning support given by his teacher. On the PAI apprentices' side, our results showed that their personal life situations threatened their ability to commit to their learning process.

All in all, our results suggest that workplace learning environments in PAI are mainly expansive, though with some exceptions that we believe are important to consider.

Trainers' crucial role in workplace guidance during PAI

Existing models in the field of VET underline the importance of affordances as the resources available in the workplace to foster apprentices' participation in work activities (Billett, 2001; Filliettaz, 2012; Fuller & Unwin, 2003). Extending this finding, our results also stressed that in our specific case of the PAI programme, trainers as individuals play a pivotal role in the PAI apprentices' training. Indeed, trainers all spontaneously adapted their overall support and guidance to their PAI apprentices' capabilities, sometimes even without noticing these efforts. The most common strategy was to progressively include them in work, starting with observation and subsequently assigning simple tasks. Then, trainers slowly increased the tasks' complexity while at the same time reducing their support. This method corresponds with cognitive apprenticeship, which is a common method used by trainers and teachers, offering/explaining cognitive processes while showing (modelling) how a certain task has to be fulfilled and adapting the subsequent coaching to the apprentice's progress (Collins, 1991). Moreover, in all three former PAI apprentices' accounts, their trainers were seen as role models who increased their motivation to learn the trade, which we could consider as contributing to building their professional identity. Based on this result, trainers appear to be the cornerstone of PAI apprenticeship. Against this backdrop and supported by our three examples, we obtained highly positive testimonials from both trainers and former PAI apprentices. However, we can

speculate that not all trainers have the same capacity for reflexivity and empathy, which appeared to be important factors. In that sense, trainers can exert a strong power that can be decisive for the apprentices' training success, and even more in the case of PAI, where we observe that trainers are also involved in extra-curricular spheres. This observation does not deny PAI apprentices' capabilities to succeed, but rather emphasises that the power of the trainer should be acknowledged and treated with caution.

Specificities of refugee PAI apprentices

The originality of our study lies in the distinct mission of the PAI programme, which aims to introduce apprentices with refugee backgrounds to, and facilitate their participation in VET, ultimately leading to a recognised qualification, that is, a VET Certificate (two-year apprenticeship) or a VET Diploma (three- or four-year apprenticeship). As previous studies have mentioned, refugee persons have been through an arduous journey, often experiencing traumas and difficult life conditions and challenges in the resettlement country (Hynie, 2018; Udayar et al., 2024). In our results, we observed that the challenges faced by PAI apprentices are not only related to language or learning, but also to their often-difficult life circumstances, which are fraught with great uncertainty. In fact, from both trainers' and PAI apprentices' points of view, external factors, such as family or administrative problems linked to temporary permits, emerged as preventing them from being able to completely concentrate on their training. This result supports the Swiss Federal Council's initiative and, on a broader European level, to implement specific programmes that allow for the adaptation of the support provided by trainers to alleviate the challenges encountered by apprentices with refugee backgrounds.

Limitations of the study and future directions

A limitation of the study concerns the classification of affordances and involvement according to our theoretical framework. These were not defined by the participants themselves but were coded as expansive or restrictive by the researchers based on participants' answers. Moreover, the interviews were not specifically developed to refer to Filliettaz's model, but they addressed workplace learning environments in PAI from a broad perspective, as suggested by Fuller and Unwin (2003, see Table 2), also including learning outside the workplace. In addition, it is important to note that Filliettaz developed his model to observe verbal interactions between trainers and apprentices, whereas we based our analyses on interviews, focusing the interviewees' personal assessments of their workplace learning environments. Another limitation stems from the rather low language proficiency of the apprentices, which poses an additional challenge to achieving mutual understanding during interviews. Finally, our

choice to focus on three cases (i.e., six interviews) to attain a deep understanding of their perspectives also features a limitation. While our three cases reflected a generally positive view of the PAI training, it is possible that analysing additional cases might have revealed a more nuanced understanding of the situation. We therefore recommend extending the analysis to more participants and professions in future research.

Conclusion

This research provided a detailed focus on three cases of PAI apprentices in Switzerland. By using a combined theoretical framework, our study offered an understanding of the extent to which affordances and commitment can be considered as expansive or restrictive from both trainers' and former PAI apprentices' points of view. Our study illustrates a rather expansive learning environment, with strong support and personal involvement from trainers in promoting their PAI apprentices' learning and inclusion within the team and larger organisation. In addition, our results stress the important role – and power – of trainers and the contextual factors that can impede a PAI apprentice's learning journey. Consequently, we encourage these elements to be acknowledged and treated with caution by stakeholders involved in PAI programmes.

Although the results of our study refer to pre-vocational programmes in Switzerland and cannot be generalised due to the small sample size, they provide valuable insights into workplace learning environments in (pre-)apprenticeships. As dual VET programmes are also offered in some Nordic countries, our results can be considered relevant for readers from that region too.

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Skilled migrants re-entering their careers in Sweden and support they received

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Abstract

This article examines the support migrants receive to access and re-enter their previous vocational areas successfully. The analytical framework builds on studies based on Coleman's and Bourdieu's concepts of social capital and develops the concepts of ideational support, material support, and bridging support. In the analysis of the empirical data, 20 interviews with skilled migrants, we found that although the kinds of support received by the migrants differed, there were also similarities. Their access was shaped not only by being categorised as (economic) immigrants or as refugees but also by when they came to Sweden and their vocations before arriving. Ideational support from people around them was critical, particularly from the institutional actors such as teachers they encountered in the different structures of opportunities that target migrants. In addition, serendipity – a chance meeting with someone – seemed to be a key for some individuals to successfully re-enter their vocations.

Keywords: skilled migrants, re-enter, career, vocation, access, support

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Introduction

Labour market integration of refugees and migrants in Sweden constitutes a recurring and often polarising theme in academic and political discourse, mirroring challenges observed across global North contexts. This article adopts a broad conceptualisation of 'migrant' to include all individuals granted residence in Sweden, such as economic migrants, asylum seekers, and refugees (Almohamed & Vyas, 2019). By economic migrants we mean migrants primarily changing home country for economic reasons such as better living conditions, higher wages, or better job opportunities. Common policy and academic explanations for the difficulties migrants encounter when entering the Swedish labour market often stress limitations in language proficiency, mismatches in educational credentials, and insufficient access to professional networks.

This study aims to move beyond these predominant deficit narratives by examining how some skilled migrants have successfully re-entered their professions in Sweden at different times. Particular attention is paid to the differential impacts of institutional support – such as language training or targeted labour market programmes – and the informal support provided through individual social networks. By doing so, the study shifts the analytical focus away from explanations rooted solely in cultural difference or systemic discrimination and toward a more nuanced understanding of the enablers of professional reintegration, as narrated by migrants themselves.

This investigation seeks to address the following key questions:

- What specific kinds of support did skilled migrants receive to re-enter their vocations in Sweden?
- Through what mechanisms and sources did they receive this support?
- What are the lived experiences and perceptions of this support among skilled migrants?

Structure of opportunities for migrants

There is substantial research in Sweden and internationally that examines obstacles migrants face in accessing their vocations. However, there are also migrants from different nationalities and ethnicities who have succeeded in establishing themselves in the Swedish labour market in their past vocation that came to Sweden at different times. Thus it is important to point out that these migrants accessed different types of structure of opportunity to facilitate their integration in the Swedish labour market. We follow Phillimore's (2021) concept of opportunity structures by examining dimensions such as discourses, institutional support and measures targeting migrants. For instance, in the 1960s there were no labour market interventions targeting migrants that were organised by

the state or the municipalities like today. Language courses during this period were either organised by the companies or study associations (Drange et al., 2025). Within this context, it is critical to recognise that the structures of opportunity introduced across different periods were underpinned by a dominant discourse – shaped by both political consensus and academic inquiry – about the factors seen as inhibiting immigrants' access to the Swedish labour market. Language proficiency, in particular, was constructed as a central obstacle, and this discourse informed the implementation of Swedish for Immigrants (SFI) in the 1980s as a key integration measure (Drange et al., 2025). Similarly, the validation of prior learning emerged in the same period as a policy tool intended to facilitate the transition of migrants into the Swedish labour market by recognising their previous educational and professional experiences. The process of validation is crucial and it has changed over time.

However, research on validation in general points out that the process of validation leads to two primary outcomes: a) an individual's competence is misrecognised, meaning they must re-train from scratch, or b) the institution that conducted the validation recommends compensatory training based on the evaluation they conduct (Andersson & Osman, 2008). The evaluation has two focuses: assessing the practical and theoretical competence of migrants. These initiatives were developed in the mid 1990s as a structure of opportunities designed to facilitate the inclusion of refugees in Sweden, albeit with varying degrees of effectiveness over time, as suggested by critiques of SFI language programme quality (Rodin et al., 2017).

Research in Sweden has, however, identified several challenges associated with this process, such as how to assess training acquired (Andersson & Osman, 2008) outside the EU/European Economic area (ESS) countries. The common practice is to examine the vocational education acquired elsewhere (outside the EU and ESS countries) in relation to the Swedish system. This approach, however, fails to acknowledge the value of heterogeneity and the contextuality of a vocation (Diedrich, 2014). Research also shows that validation functions as a divisive practice, where migrants are either placed in subordinate positions or excluded altogether from their vocations (Andersson & Osman, 2008).

Sociologically grounded research has long pointed to the lack of relevant professional networks as a key barrier preventing migrants from entering their former vocations in countries like Sweden (Vesterberg, 2015). This challenge is often understood in terms of social capital – resources embedded in social networks – which migrants may lack in the host country. Both Coleman (1988) and Bourdieu (1977) offer foundational insights into the concept. Coleman frames social capital as a kind of public good, something individuals invest in to benefit their families and communities. His perspective emphasises the instrumental value of these ties. Bourdieu, on the other hand, sees social capital

as both a result of and a means to accumulate other forms of capital. In his view, it plays a double role: it both shapes and is shaped by the social position of the individual.

At the same time, social capital, we would like to emphasise, should not be regarded as a uniform or universally advantageous resource. Gericke et al. (2018), for example, demonstrate how different types of social ties can lead to very different labour market outcomes. In their study of Syrian refugees in Germany, ties within the same ethnic or national group often provided emotional or practical support but mostly resulted in low-skilled jobs. Conversely, connections to individuals outside their immediate community, such as social workers, supervisors, or volunteers, were more likely to offer access to employment that better matched their qualifications. In other words, the significance of a migrant's network depends on how closely it aligns with their professional objectives.

Some migrant groups, such as Iranians in Sweden, have been relatively successful, in part because they arrived with cultural and social capital that could be more easily recognised and converted into opportunities (Behtoui, 2022). But this is not the case for all. Eggenhofer-Rehart et al. (2018) describe how many skilled refugees struggle to make their cultural capital count in the Swedish labour market. A consistent theme in this body of research is that the experience, knowledge, and networks that migrants bring with them are often undervalued or misrecognised (Andersson & Osman, 2008). This is echoed in the findings of Behtoui and Leivestad (2019) and Povrzanović Frykman and Mozetič (2019), who show that many skilled migrants end up working below their qualifications and earn less than their Swedish-born peers. As a result, they are often forced to reconfigure or renegotiate their career paths (Eggenhofer-Rehart et al., 2018).

Other studies have drawn attention to additional hurdles. As Dehghanpour Farashah and Blomqvist (2020) point out, having one's credentials formally recognised is not enough. Migrants also need to learn how to navigate the often implicit norms and institutional cultures of the Swedish labour market. On top of that, broader structures – such as migration and asylum policies – can create further obstacles (Ganassin & Johnstone Young, 2020; Rodin et al., 2017). In some cases, legal and bureaucratic rules tied to non-EU citizenship, for instance, limit access to stable employment. Van Riemsdijk and Basford (2022) describe how in Norway, the requirement for non-EU migrants to secure a full-time job with a comparable salary just to maintain their residence permit is a stark example of how policy can act as a gatekeeper.

The relationship between state institutions and organisations supporting refugees is therefore complex. As shown in Werwiebe et al.'s (2019) study in Austria, these actors can both enable and restrict migrants' access to the labour market. Understanding this tension is essential, especially when considering how

administrative systems sometimes create more barriers than opportunities. Still, research also points to factors that can help – language skills, personal drive, support from others, and a more inclusive social context all seem to make a difference in how migrants manage to re-enter their professions (Economou & Hajer, 2019; Eliasson et al., 2022; Ganassin & Johnstone Young, 2020).

Societal structure of support for migrants to access their vocations in Sweden

Since the mid 1980s, Swedish policies have sought to minimise the time required for migrants to re-establish themselves in their professions. In the 1950s and 1960s, migration to Sweden predominantly comprised labour migrants from Nordic countries, the former Yugoslavia, Greece, Italy, and Turkey. Since the 1970s, Sweden has seen a major demographic shift among migrants, with asylum seekers increasingly coming from Iran, Latin America, Somalia, Iraq, Ethiopia, Eritrea, Syria, the former Yugoslavia, and, most recently, Ukraine. To provide context, Sweden's number of foreign citizens has steadily increased from 2010 to 2024. In 2024, more than 2 million people were born abroad, corresponding to 20 percent of the population (SCB, 2025).

Prior to the 1970s, Sweden lacked a comprehensive integration policy beyond naturalisation processes and adherence to international conventions regarding asylum. However, this changed with the adoption of a multicultural policy in the 1970s, designed to support migrants' ethno-cultural identities (Borevi, 2014). A shift away from this multicultural approach occurred in the early 1990s, leading to substantial modifications in integration strategies. While this period saw a change in focus, the foundational elements of the 1970's policy, such as mother tongue instruction, support for ethnic associations, and SFI, were retained, despite critiques regarding their potential to reinforce cultural divisions.

These policy shifts redefined integration practices, prioritising the swift re-establishment of migrants' pre-immigration careers. Here, 'access their vocation' refers to having vocational qualifications recognised, obtaining necessary certifications, and securing employment within their respective professional fields, aligning with the concept of 're-entering their previous vocations'. The government introduced validation programmes and the establishment programme to achieve these objectives. These programmes are mandatory since 2018, provides a two-year, individually tailored plan through the Public Employment Service. Its core aims are to expedite newcomers' entry into the Swedish labour market, foster their self-sufficiency, and enhance their engagement in work and society. It is designed for adults aged 20 to 65 (Arbetsförmedlingen, n.d.a).

In 2015, the Swedish government launched two integration programmes: the Short Way (Korta vägen) and the Fast Track (Snabbspår). The Short Way programme targets job seekers registered with the Public Employment Service (PES) who possess at least two years of academic education from abroad, primarily newly arrived academics granted residency within the past 36 months. It assists participants by assessing their skills, securing internships, providing specialised Swedish language courses, and offering vocational coaching and job training. The Academic Fast Track programme focuses on newcomers with in-demand skills and aims to quickly place them in appropriate jobs through the PES. Both programmes vary in duration, typically from six months to one year. Specific Fast Track pathways illustrate this variation. For instance, the medical and dental track includes 200 hours of Swedish language and cultural education, plus 60 hours of medical Swedish. The social sciences, economics, and law track, on the other hand, consists of a commissioned education equivalent to 30 higher education credits, comprising six months of study and a six-month internship, resulting in a one-year programme (Arbetsförmedlingen, n.d.b).

Theoretical framework

The analytical framework of this study builds on studies by Lin (2001), Prado (2009), and Osman and Månsson (2015), which are based on Coleman's and Bourdieu's concept of social capital. While these two thinkers conceptualise social capital differently, there are similarities. For example, Coleman (1988) and Bourdieu (1977) regard social capital as a collective resource, a product of the social structure in which individuals are embedded. Coleman constructs the concept as a public good (Coleman, 1988) and an investment by agents to benefit the family and the community. He takes an instrumental view while Bourdieu perceives the concept as cause and effect. In other words, the concept concomitantly acts in two ways, producing and converting the different forms of capital that individuals use to entrench their positions.

Empirically, the notion of trust and normative control (community control) in Coleman's understanding of social capital is supported by many empirical studies (as stated above, but also Tornatzky et al., 2002). The analytical focus of these studies was shared expectations, trust, and normative control. However, what is ignored in this conceptualisation of social capital and analysis in these studies is the unequal social and economic resources in which individuals are embedded and how these impact the competition for limited resources in different social fields (Bourdieu, 1986). Some individuals are socially amenable to benefit from trust to facilitate their social mobility and integration, while other groups and individuals cannot do that; this is at the core of Bourdieu's analysis of different fields.

Hence, to analyse the mechanism and factors which allowed the individuals in our study to re-enter their vocations in Sweden, it is essential to identify the social and material resources these individuals received or mobilised. To achieve this objective, the following concepts will be used to analyse the data collected: ideational support, material support, and bridging support (Osman & Månsson, 2015; Portes & Rumbaut, 2001; Prado, 2009). *Ideational support* refers to the ability of a person to mobilise the support of the social network they are embedded in (Coleman, 1988; Osman & Månsson, 2015; Prado, 2009). This concept, hence, allows us to shed light on the support these migrants received, for instance, advice and information about educational opportunities. This can include individuals in their network or institutional actors such as teachers.

Material support refers to the impact of unequal material resources and how underprivileged individuals compensate for their lack of material resources. This support is tangible through finances, board, and lodging (Osman et al., 2020; Osman & Månsson, 2015; Prado, 2009;). Bridging support denotes the linkage between ideational and material support. Both Bourdieu (1986) and Coleman (1988) stress the significance of others in social networks and how networks are vital in the competition for limited and coveted institutional resources. Hence, bridging support refers, for instance, to individuals who link migrants to those who can provide ideational and material support – relatives, friends or others who may link to a third person with institutional expertise or knowledge about accessing their vocations. Bridging support is the linkage between two or more parties and serves as a conduit for material and ideational support (Osman & Månsson, 2015; Prado, 2009). In Osman's (2012) analysis of the transitional education career of a Somali Swede, it is shown that the decision to study in the UK and to seek labour market integration was enabled through access to material resources (e.g., free board and lodging) and ideational resources provided by family members. But this support has a downside, sometimes referred to in the literature as the dark side, of community normative control, whereby individuals are expected to adhere to the norms of the community or relatives. The combination of these three analytical concepts allows us to capture how these immigrants compensated for their lack of individual, social capital to access their vocations.

Methodology

Between 2020 and 2021 we conducted 20 semi-structured interviews with skilled and highly skilled migrants who were or had been working in Sweden in their previous vocations. We used purposeful sampling to locate the participants, all of whom were informed about the study before giving their informed consent. Ethical review was granted by the Swedish Ethical Authority (2020-01139). Six

men and 14 women from 17 countries participated, representing Africa, Asia, and Europe. Their arrival times in Sweden varied from the 1980s to the 2010s and they gave various reasons for migrating such as family reunion, economics, career, and humanitarian. Participants' ages ranged between 25 and 61 and their vocational areas included the financial and food sectors, industry, healthcare, and childcare (see Table 1). The recorded interviews lasted between 30 and 100 minutes, and while some were conducted face-to-face, most took place via video conferencing or telephone due to Covid-19 pandemic restrictions. The interviews were transcribed verbatim and thematic analysis (Braun & Clarke, 2006) was used to identify various themes. NVivo software was used to aid the analysis. All names in the result section are pseudonyms.

Table 1. Participants' sex, pseudonym, country of origin, year of arrival to Sweden, and vocational area.

Sex/pseudonym	**Country of origin/ year of arrival**	**Vocational area**
F/**Leila**	Iran/2002	Physiotherapist
F/**Asha**	Thad/2009	Nurse
F/**Maria**	Syria/1996	Health care secretary
F	Poland/1995	Nurse
F	Uganda/1991	Nurse
F/**Catherine**	Uganda/1982	Financial worker
M	Iran/2015	Welder
M	Gambia/2016	Upper secondary industrial education
F/**Mila**	Thailand/2000	Chef
F/**Caroline**	Armenia/2012	Preschool teacher education
M	Croatia/2016	Financial worker, teacher education
F	Germany/2002	Preschool teacher
M/**David**	Nigeria/2004	Industrial worker
F	Lithuania/2000	Teacher education
M	France/2015	Chef
M	Lebanon, Syria/2003	Chef
F	Russia/2016	Financial worker
F/**Grace**	Iran/2011	Nurse
F/**Aisha**	Eritrea/2017	Nurse
F/**Amina**	Eritrea/2015	Nurse

In the first phase, all researchers thoroughly read all interviews. In the second phase, we independently used an inductive approach to identify preliminary codes and develop themes. In the third phase, we discussed and checked our coding and themes to ensure accuracy. In the fourth phase, we focused on the theme named *support*, which was closely examined through the lenses of our research questions and theoretical concepts – ideational, material and bridging support. It was remarkable that even though the data were very diverse in terms of the participants' backgrounds – for example, when they had entered Sweden and from which country, their vocational areas or reasons for migration – they all talked about social support and its significance for their re-entering their previous vocations. The quotations in the results section were chosen to highlight various types of support they received along the way.

Results

The results of this study address the three research questions by analysing the types of support skilled migrants received, how they accessed this support, and their experiences with it. First, the findings reveal that material and bridging support can be crucial for migrants re-entering their professions, with ideational support being particularly significant. This addresses the first research question by identifying specific types of support migrants received, such as advice from institutional actors, family members, chance encounters, and material resources like financial aid or housing. Second, the analysis emphasises how migrants accessed support, which often depended on their migration category such as refugee or economic migrant, social networks, and institutional structures like the PES or validation programmes.

For instance, refugees often relied on institutional support, while economic migrants faced more obstacles due to ineligibility for state-funded resources. This directly answers the second research question by illustrating the pathways through which support was accessed. Lastly, the support experiences varied considerably, with some migrants benefiting from serendipitous encounters or active institutional actors, while others encountered discouragement or misrecognition of their qualifications. This addresses the third research question by showing how migrants perceived the effectiveness and challenges of the support they received. Motivation, individual efforts, and even serendipity were identified as vital factors in navigating these processes, further linking the findings to the research questions. Overall, the analysis demonstrates how the interaction of institutional structures, social networks, and individual efforts shaped migrants' experiences and outcomes in reclaiming their previous vocations in Sweden.

The structure of opportunity as a type of institutional support

The Swedish system of support intended to aid migrant professionals in re-establishing their careers reveals a landscape marked by significant disparities. While migration status, distinguishing between economic immigrants and refugees, carries some weight, the timing of an individual's arrival and the specific conditions attached to their residence permits emerge as far more critical determinants of their access to institutional assistance. This creates a situation where the ability to leverage available support is heavily contingent on factors beyond one's initial reason for migration. A particularly stark contrast exists in access to social assistance: refugees are automatically entitled to this crucial safety net, whereas economic migrants and their spouses face considerably stricter eligibility criteria. This differential access profoundly shapes their vocational paths, particularly for those with prior professional training. The experiences of individuals like Grace, a qualified nurse who joined her refugee husband through family reunification, illustrate this complexity. Grace benefited from programmes like the establishment programme and Fast Track initiatives. Her initial employment often involved roles below her skill level, such as assistant nurse or personal assistant. This pattern of downward occupational mobility, echoed in the experiences of other professionals like the Eritrean nurse who simultaneously worked as an assistant nurse while studying Swedish, underscores the challenges and inconsistencies within the system, highlighting a gap between qualifications and initial opportunities despite the presence of institutional support.

> So, while I was studying the language, I also chose to work as a substitute in three different places as an assistant nurse. (Grace)

> Some entered the Swedish labour market in sectors like cleaning services, hospitality, or retail. Then, I worked as a cleaner full-time. In addition, I worked as a cashier in the evenings. At that time, it was called [name of the company], but now it is called [name of the company]. I worked every day, 12 hours, full time. (Maria)

While Grace's experience suggests a different dynamic, the cases of Amina and Aisha underscore how the very time of arrival in Sweden initiates a period of uncertainty. As asylum seekers and migrants await their residence permits – often a protracted process – their ability to engage with the labour market and welfare system, and crucially, to transfer and apply their existing knowledge and skills, remains conditional and increasingly time-sensitive within the Swedish context. This was especially true for Aisha, whose integration was likely further complicated by arriving during a period when the landscape of opportunity in Sweden was less expansive compared to the times of Amina and Grace's arrival.

Amina said: 'After getting married, after two years, we came here to Sweden. And then everything stopped there. Aa. So yes, I could not work. I was waiting for my residence permit.'

Grace, unlike Amina, already had her residence permit when she came to Sweden to join her husband.

> I came to Sweden in 2017 because I married a man who was here. However, via the Public Employment Service I got to know about 'The Fast Track'. In Fast Track you study the language at the same time you learn about Swedish working life. (Grace)

According to Grace, after successfully completing the Fast Track programme, participants were expected either to take a compensatory programme or take a Swedish nursing examination (*kunskapsprov*) to get a licence to work as a nurse. A physiotherapist from Iran described her examination as follows:

> I was preparing for another test that you have to do to get your degree recognised in Sweden. It was about legal issues and laws. At the same time, I was preparing for the written test, which was a comprehensive test. You could say that it was validation of my theoretical knowledge. […] There were then three steps to it: master the language Swedish B-level, pass the theoretical test, and then pass a practical test as well, to get your degree recognised. (Leila)

The support landscape for skilled immigrants and refugees seeking vocational re-entry in Sweden evolved over time. Consequently, Leila did not receive the same assistance as Grace because, at the time of Leila's arrival, key initiatives such as the Short Way and Fast Track programmes, which later facilitated Grace's integration, were not yet in place. Asha's family comes from Chad, but she was trained as a nurse in Kuwait for six months before coming to Sweden, applying for and being granted asylum. When she arrived, she attended SFI and other complementary language courses through a municipal adult education programme where she also trained as an assistant nurse, even though she had a nursing degree from Kuwait. After her assistant nurse training, she contacted the human resources office in the county council (which was responsible for Health) to apply for the Swedish Nursing licence, and they arranged for her to practise in a hospital for six months.

> She [the human resources officer] arranged for me to practise at the hospital. I studied the assistant nurse programme, but I have done an internship since then, as a nurse at the hospital for at least six months. The validation went well at Karolinska. The National Board of Health and Welfare arranged it, and it went very well. A challenge there was my cultural difference, that I come from another culture, that affected the result. I passed everything but failed on the drug bill part of validation. I was very sad, but I redid the test three months later and passed. (Asha)

Catherine, originally from Uganda, came to Sweden in the 1980s, after completing a degree in economics in India.

> When I completed my education, Idi Amin was the president of Uganda. Uganda was unstable, I could not go back, and my student visa in India was expiring. I had a friend who lived in Sweden, and she said, 'come to Sweden'. (Catherine)

The process of accessing her vocation, like for all the informants, began with a language training programme.

> Catherine: The first time in Sweden was very difficult. Everything is so new. In addition, you started with Swedish at once. I think the first week it was quick to get into the Swedish course, and you could choose to go for six hours [a day]. Then after '82, I started at an AMU centre [a labour market programme]. During this time, if you were registered at an AMU centre you automatically got compensation from the Swedish Public Employment Service on the days you went to school.
>
> Interviewer: How long was that training at the AMU centre?
>
> Catherine: It was only six months. If you passed the exam, then you could choose a vocation. Mechanics or office administrator or chef. There were different career choices. I already had an education; I did not want to do anything else. Therefore, I left AMU, and went back to the Public Employment Service, where they kept referring me to cleaning jobs, but I refused. During this time, you could refuse a job you were offered.

During this period in the early 1980s, there were no programmes such as The Short Way or validation for refugees to help highly educated individuals like her to access their vocation. However, because she was a refugee, she had the support of PES, although, as evident below, she realised that they would not help her to access her vocation since they kept referring her to cleaning positions. She agreed to take a cleaning job but not in a hotel or a hospital. Her strategy pivoted on the reasoning that every office has a finance department, so she accepted office-cleaning assignments as a way to make contact with the vocation.

> I said, 'I'm not cleaning hospitals. I am not interested. Not hotels. But offices I can clean'. So, he sent me to the Swedish Social Insurance Agency head office. [One day she met the director, who said:] 'come and tell me about yourself', and then I explained that I came from Uganda, studied in India, and had a degree in Economics. She was very surprised, 'but why are you cleaning?' [Catherine replied]: 'I don't know. They referred me here'. She said, 'no, no, no, no, no, that was not good'. After a couple of months, the director called me and explained that they would be announcing a position in the finance department and if I wanted, I could apply for it. I applied for the job; 90 people applied, but the head of the department said, 'I know you have never worked in Sweden, but I want to give you a chance. And I will give you the job for six months and test you. If you can do it, then you get a permanent job'. I struggled for six months and then I got a permanent job as an administrative assistant in planning and budgeting. (Catherine)

This type of access was rare, but it could even happen today. All participants emphasised the role their motivation and individual efforts played in accessing their vocations. As Asha said, 'you never give up!'

> I think I had a very strong inner motivation. I was also very young at that time. I had the strength and energy, I just knew now I have to have a Swedish nursing licence, I have to work as a nurse. Then everything will be easy for me. If I failed, I always saw why I failed. What can I do differently? Who can help in this situation? Which people know best? So, I called the National Board of Health and Welfare, I googled

> their phone number, I called the county council, I called the school. All the time I was trying to find paths even if some were controversial, how can you say, not ordinary. (Asha)

David came from Nigeria to Sweden as a student. He similarly stressed strong inner motivation when he was struggling with the new language and education.

> Yes God, several times you were about to give up. And several times I asked myself, 'but why do I have to fight like this to get into society?' And then, remember that it is difficult. It is difficult. But one thing I have known all along is: 'God, Sweden has given me a chance', because this is what many people forget, they say; 'oh, it's hard, why did I not get in?' No, they still gave you a chance to do your best. (David)

Caroline, unlike Asha, Amina, or Grace did not come to Sweden as a refugee, but as a migrant from a non-EU Eastern European country to join her husband. Both had to find work to get a residence permit. She studied SFI part-time and once she got her permanent residence permit, she took advanced courses at an adult education centre, contacted the study counsellor, and explained her plans. Instead of informing her and suggesting ways she could pursue her goals, the counsellor instead discouraged her from pursuing her vocation in Sweden:

> I met a career counsellor, study counsellor, in an adult education school. I said, 'I'm trying to find a job as a dental nurse'. I told her that I am a dental nurse and that I had a little preschool teacher education. I want to work as dental nurse. She said, 'yes, but you know it's very common nowadays for people to buy their qualifications and then come to Sweden and pass them off as their own'. I got very angry at that woman. I insisted and said to her, 'okay', and she said, 'but even if you are a dental nurse and choose to work as a childcare worker you have to take some courses here in Sweden. You need vocational language'. I said, 'but of course you can learn it during the internship when you work or you can do an internship, maybe one-two months and learn'. 'No no no, it is a very demanding course' [the counsellor said]. I felt like I would get nowhere with her. I took a child and recreation programme and did my practical, I got work, and I am still working as a childcare worker. (Caroline)

Caroline's case shows how the path to accessing one´s prior vocation for an economic migrant is different from that of a refugee. [Economic] migrants cannot access the resources and the support of the various welfare systems to facilitate their inclusion into Swedish society or to access their vocations. Earning a salary comparable to Swedish workers is essential for securing a residency permit and qualifying for Swedish institutional welfare, which includes skills validation, vocational course funding, and retraining. The priority for economic migrants is finding work, which then gives them access to the institutional resources which facilitate entry into their vocation.

To summarise, factors that shape migrants' paths to their vocations in Sweden include their country of origin, whether they are refugees or an economic or EU migrant, and time spent in the host country getting a residence permit and gaining recognition of their prior qualifications. Unlike economic migrants from outside the EES, Nordic, or EU regions, those within these regions face neither

barriers to obtaining work permits nor challenges to their occupational training or qualifications. Economic migrants from countries outside the ESS-area also face similar hurdles to refugees when accessing their vocations in Sweden. Still, unlike the refugees, they are not eligible for state institutional, financial, material, or ideational support.

Support: The door openers

Informants in this study noted that their most significant support was not sought but rather delivered or received – ideational and bridging institutional aid arriving through chance or the initiative of institutional actors. While generally available, certain institutional actors truly stepped up, transcending their roles. For Asha, it was a county council human resources officer, and her Swedish teacher actively championed her progress, which illuminates the transformative power of this unexpected support.

> A person who arranged the internships for me, I think about her a lot. I have never forgotten her. She opened doors for me. She helped fix internships for me and advised me to learn and improve my Swedish if I wanted to get my nursing license. I think she has opened a bigger door for me, the most enormous door. She helped me to get a practicum. (Asha)

Thus, the institutional actors can and often do function as door openers and may even be able to offer a job, thereby providing ideational, but most importantly, institutional bridging support. Some of the migrants received ideational and bridging support from family members. For instance, Mila, a chef from Thailand, got advice from her friend and her sister:

> I thought, 'What am I going to do when I have sold my restaurant?' I didn't want to work anymore at a restaurant because I wanted to do something new. I got many hints from different people – my friend, my sister. My sister is an assistant nurse, so she said, 'Care work'. Just as we helped our mother and father, it is part of the culture in our country. (Mila)

Mila was embedded in a network that could advise her about work opportunities. Similarly, for Asha it was critical to meet other migrants: 'I knew some who went the same way a little earlier. So, I think the role model of people who have gone all the way is great. There are actually people who have done it.' Asha's role models represent a form of aspirational bridging, where seeing others succeed provides not just guidance but also motivation and self-belief. Mila's case provides a good example of how bridging from close family members or a social network facilitates labour market access. However, not all our informants were embedded in a social network that could help them access their vocations in Sweden. For Catherine, the financial worker, the chance meeting with the organisation's director and their conversation about her background changed the

course of her life. In other words, a single, serendipitous connection with the organisation's director led to a career breakthrough.

To summarise, while there were similarities there were also differences in how the various categories of migrants experienced the support which helped them access their vocations. For refugees, the kind of support they got from institutional actors, particularly from Public Employment Officers, was critical. For some, these actors were door openers, while for others they were hurdles, or for lack of a better word, door closers, as in Caroline's case. Another important aspect is the recognition of prior learning. As noted above, the recognition was contingent on where they came from, and where they received their training or education. In other words, vocational education is privileged differently in the host society; in our case, in Swedish institutions and the labour market.

Similarly, the obligation to attend language classes is contingent on whether one came as a refugee, or an economic migrant. However, irrespective of how an individual comes to Sweden, language courses are obligatory for accessing complementary vocational courses or programmes which require a specific Swedish language ability. Time of arrival in the host country was similarly a critical factor for refugees. For instance, there were fewer support structures in the mid 1970s, compared to today, where there is a battery of structures of opportunity targeting different categories of immigrants. Finally, individual efforts and drive were critical factors, mainly for economic immigrants and refugees who lacked the social capital to link them to the ideational support needed for accessing their vocations in Sweden; they had to rely on institutions to provide that support.

Concluding discussion

This article explored the support skilled migrants received to re-enter their prior vocations in Sweden successfully. The findings identified structural and individual factors, differences, and commonalities in their experiences entering their profession or vocation in Sweden.

A significant difference emerged between refugees and economic migrants to accessing institutional support. Refugees had automatic access to structured programmes such as the Fast Track and the Short Way, which provided language training, validation of prior learning, and financial assistance. These structured programmes are key instruments in Swedish integration policies and practices. The policy aims to facilitate rapid labour market entry of refugees in Sweden.

In contrast, economic migrants, particularly those from the EU and non-EU countries, did not automatically qualify for these institutional structures of opportunity or the different welfare regimes. They had to navigate the system

independently. Their ability to re-enter their vocation depended largely on self-initiative and personal networks.

Despite these differences, a common theme identified by the informants in this article was the importance of ideational support – access to information, advice, and encouragement. Many migrants, regardless of status, relied on bridging actors, such as engaged institutional actors, and serendipitous encounters to re-enter their vocation in Sweden. This aligns with prior research on the role of social capital in labour market integration, suggesting that formal support mechanisms alone are insufficient without access to relevant social networks. Another significant institutional support structure is the validation of prior competence. It emerged as another critical factor but with varied outcomes. Some migrants had their qualifications recognised and could enrol in compensatory programmes tailored to their vocation. Others faced significant barriers due to normative validation procedures, rules and regulations of different institutions that organise compensatory programmes, and biases regarding credentials obtained outside the EU.

The validation process, thus, can be both a structural barrier and an opportunity for a migrant to access their prior vocation in the Swedish labour market, where foreign qualifications are often degraded, and some migrants are subordinately included in their previous vocation in Sweden. Furthermore, the role of institutional support and motivation was evident across cases. However, it is vital to point out that migrants who actively sought information, engaged with institutions, and persisted despite bureaucratic hurdles were more likely to succeed in re-entering their vocations. But those who encountered institutional actors willing to provide additional support often had more successful outcomes. This highlights serendipity in labour market integration, where chance encounters with supportive individuals can significantly alter career trajectories. Institutional support structures can provide essential scaffolding for migrants, but such resources remain unevenly distributed. The interaction between migration category, prior education, and access to bridging support networks plays a decisive role in vocational re-entry. Future policy efforts should focus on improving access to social capital, streamlining validation processes, and ensuring that institutional actors can provide tailored support that considers the diverse backgrounds and needs of skilled migrants.

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Aiming forward: Exploring the career aspirations of refugees in a pre-vocational programme

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Abstract

This paper explores the long-term career aspirations of refugees participating in a Swiss pre-vocational programme (PAI) supporting their transition into vocational education and training (VET). Using survey data from 2702 participants combined with administrative records, we describe participants' most salient career aspirations, identify distinct participant groups with different aspiration patterns, and analyse group differences in socio-demographic backgrounds, personal resources, learning experiences, and post-PAI pathways. Using latent class analysis (LCA), six groups were identified: Three stayer groups showed strong continuity aspirations, linked to more positive learning experiences and higher transition rates into VET. The other three groups were characterised by a desire for occupational reorientation, a focus on broader career themes, or general career uncertainty. Career-uncertain individuals had fewer personal resources, less positive learning experiences, and weaker learning outcomes than the stayers. Overall, six in ten PAI participants wished to remain in their current occupational field, indicating that the programme successfully motivated and prepared them for careers in that field. The findings highlight the importance of high-quality learning environments for developing long-term career aspirations among refugees entering VET and the labour market, thereby fostering sustainable careers.

Keywords: aspirations, career, refugees, integration, pre-vocational training, learning experiences, apprenticeship, latent class analysis (LCA)

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Introduction

Learners with a migrant background often encounter significant barriers in accessing, participating in, and completing educational programmes, including initial vocational education and training (VET) (Bell Sebastián et al., 2025; Morrice, 2021; Scharnhorst & Kammermann, 2020). Refugees are particularly at risk of being excluded due to individual factors such as limited schooling, language difficulties, financial constraints, and health issues, as well as contextual factors like restrictive legislation, cultural differences, insufficient support structures, and discrimination (Aerne & Bonoli, 2021; Brell et al., 2020; Thomas et al., 2024). These barriers severely limit their opportunities to enter VET and obtain skilled employment (Lee et al., 2020; Zacher, 2019).

At the same time, many refugees arrive in their host country with high educational and occupational aspirations (Baker et al., 2014; Otmani, 2023; Tlhabano & Schweitzer, 2007). However, they often need to adjust these aspirations in response to constraints in the education and labour markets (Coleman Gallagher et al., 2021; Wehrle et al., 2019). Many are channelled into unskilled jobs in occupational fields that are not attractive to locals (Arthur et al., 2025; Colic-Peisker & Tilbury, 2006). Even when they sustain their high aspirations, realising them remains challenging and requires sustained effort and targeted support (Hokkinen & Barner-Rasmussen, 2023; Lateef et al., 2023).

To facilitate refugees' access to education and employment, the Swiss government launched the pre-vocational programme 'pre-apprenticeship to support integration' (PAI) in 2018 (Staatssekretariat für Migration, 2018; Stalder et al., 2024). The PAI prepares recognised refugees and temporarily admitted persons aged 16 to 40 without upper secondary qualifications for apprenticeships in specific occupational fields, while helping employers address skills shortages. Since 2022, the programme has also been open to late-arriving migrants from EU/EFTA and third countries. Serving as a gateway to initial VET (IVET), the PAI is a first step into qualified employment (Aerne & Bonoli, 2021). Moreover, by providing insights into the Swiss VET system and career pathways within specific occupational fields, it aims to empower participants to actively shape their careers and develop future-oriented mindsets and career-related aspirations beyond IVET (Dryden-Peterson, 2019).

Using survey data from more than 2700 PAI participants, this study investigates how the PAI supports the development of such aspirations and how these align with the programme's occupational fields. It examines participants' career aspirations, identifies groups with different aspiration patterns, and analyses differences between these groups in terms of socio-demographic background, personal resources, learning experiences in the PAI, learning outcomes, and post-PAI pathways. The research questions and their conceptual embedding are elaborated in the following sections. The findings contribute to the broader

discussion of how pre-vocational programmes can be designed to foster the integration of refugees into VET and the labour market.

Career aspirations

Aspirations reflect an individual's subjective orientation toward a desired near or distant future. They encompass hopes, dreams, and visions, as well as ambitions and goals individuals wish to achieve, plans they seek to realise, and the personal future they want to construct (Boccagni, 2017; Khampirat, 2020; Rojewski, 2005; Tlhabano & Schweitzer, 2007). Research on career aspirations often centres on occupational aspects (Rojewski, 2005). However, even when career aspirations are defined primarily in relation to work, other life roles, such as being a learner or a parent, may have an essential influence, particularly when desired occupations require specific education and training, or when employment must be reconciled with caregiving responsibilities (Howard et al., 2011).

Setting longer-term goals beyond IVET is relevant for all learners, and it is especially challenging for refugees, who must reorient themselves and often rebuild their careers in the host country from scratch (Fedrigo et al., 2021). However, aspirations have only recently gained attention in refugee studies (Boccagni, 2017; Newman, Bimrose, et al., 2018; Rojewski, 2005). Most work, aside from a few exceptions (e.g., Newman, Nielsen, et al., 2018; Pajic et al., 2018), is qualitative and focuses on refugees with upper-secondary or higher qualifications (e.g., Olsson et al., 2023; Schneider, 2018; Wehrle et al., 2019). These studies highlight substantial obstacles such as the non-recognition of prior learning, labour-market discrimination, and the need to adapt career plans, as well as the resources refugees mobilise to overcome them (e.g., Ashour, 2021; Mangan & Winter, 2017). Little is known about the aspirations of low-qualified refugees who arrive as young adults and about the role VET plays in shaping their trajectories. Existing evidence suggests that refugees are often pushed into low-prestige jobs with limited prospects (Colic-Peisker & Tilbury, 2006; Udayar et al., 2021; Zacher, 2019). It is therefore crucial to assess whether VET and VET-accessible occupations are viewed as viable and attractive options, and whether refugees aspire to remain in their occupational field.

Our first research question thus aims to investigate the nature and frequency of refugees' aspirations:

RQ1: What are PAI participants' most salient career aspirations?

People usually have multiple wishes and plans for their future. Understanding aspirations as expressions of who one wants to be and what one intends to do underscores their multifaceted and interconnected nature (Rojewski, 2005). In the context of work, the aspiration to pursue a particular occupation may be linked to the role or position one seeks to attain within an organisation. It can also relate to preferences regarding working conditions and tasks, such as adequate pay,

meaningful work, a supportive team climate, or compatibility with family responsibilities. Moreover, occupational aspirations often build on educational aspirations and intersect with private life (Nunn et al., 2014; Zacher, 2019).

Our second research question, therefore, examines whether groups of participants can be identified that are characterised by similar patterns of career aspirations that differ from those of other groups:

RQ2: Can distinct groups of participants with different career aspiration patterns be identified?

Personal and contextual factors

Social cognitive career theory (SCCT) highlights the essential role of personal and contextual factors in shaping career goals (Lent & Brown, 2019). These factors influence educational and occupational interests, choices, and outcomes, as well as how individuals navigate challenges throughout their careers (Lent et al., 2018).

Individuals with stronger personal resources are more likely to develop clear aspirations and overcome career barriers. Research with migrants and refugees shows that those with higher levels of self-esteem, self-efficacy, and career adaptability tend to be more resilient and future-oriented, thereby developing higher aspirations and greater confidence in job-search activities (Khampirat, 2020; Pajic et al., 2018). Support from family and social networks further strengthens the development of aspirations (Campion, 2018). Conversely, barriers such as limited familiarity with the host-country language and culture, emotional strain (e.g., loneliness, separation from family), or a lack of social support can undermine refugees' ability to develop future-oriented perspectives (Udayar et al., 2021). Evidence regarding socio-demographic influences is mixed. Some studies suggest that women often express higher aspirations but adjust them more strongly to available opportunities (Campion, 2018; Rojewski, 2005), whereas younger refugees and those without family obligations are more open to investing in education to achieve their goals (Niessen et al., 2023).

Educational and employment opportunities, along with learning and work experiences in both the country of origin and the host country, shape the aspirations refugees develop (Zacher, 2019). According to SCCT, learning experiences, including both support and barriers, are central to this process, as they influence learners' interests, self-efficacy, and outcome expectations. They also moderate the relationship between interests, goal setting, and action. For example, low support from workplace trainers or family members can make people less likely to persist in pursuing their career aspirations. Importantly, refugees' expectations regarding education and work largely resemble those of natives: They seek opportunities that align with their interests and identity, offer decent learning and working conditions, and enable meaningful relationships

(Fedrigo et al., 2021). Refugee studies thus consistently emphasise that the provision of and access to high-quality education and training, along with targeted guidance, are critical (Pilz, 2021; Zacher, 2019).

Although few studies directly link refugees' aspirations to the quality of VET, it can be assumed that learning experiences shape aspirations in two ways. Motivating work and supportive learning environments may foster the development of concrete aspirations, optimism, and the wish to continue learning and working in the current occupational field (Allan et al., 2018). In contrast, uninspiring and unsupportive learning environments may provoke uncertainty about one's career and the wish to reorient. These assumptions align with research on apprenticeships, which shows that meaningful, well-supported VET is associated with lower dropout rates, whereas poor VET quality and dissatisfaction are associated with higher intentions to quit or reorient (Böhn & Deutscher, 2022; Stalder & Lüthi, 2016, 2022).

Addressing this research gap, our third research question examines whether personal factors and learning experiences in the PAI differ across aspiration groups:

RQ3: How do the identified groups differ in their socio-demographic background, personal resources, and learning experiences in the PAI?

Learning outcomes and access to VET

Research suggests that career aspirations serve as a link between personal resources and contextual opportunities. They shape not only what refugees aim for but also the decisions and actions they take, the effort they invest, and, in turn, their learning outcomes and career advancement (Ashby & Schoon, 2010; Knappert et al., 2019; Niessen et al., 2023). Aspirations guide educational choices and pathways, with ambitious learners more likely to pursue demanding programmes, further qualifications or specialised training (Niessen et al., 2023). Refugees with high aspirations tend to invest more in learning the host-country language if they perceive it as essential for achieving desired educational qualifications or occupational positions (Udayar et al., 2021). Strong aspirations are also linked to higher workplace engagement, which in turn enhances the acquisition of language skills, practical competencies, and transferable skills needed for work (Khampirat, 2020). Such skills are strong predictors of successful transitions into VET and employment (Pilz, 2021; Udayar et al., 2021). Moreover, clear aspirations can facilitate refugees' access to education by prompting them to seek help and utilise support services to overcome institutional barriers (Busse & Maué, 2025; Pajic et al., 2018). Conversely, when aspirations are weak or constrained by adverse experiences and life situations, refugees may reduce their educational investment or opt for short-term training or low-skilled employ-

ment, thereby limiting their long-term career development (Campion, 2018; Thomas et al., 2024).

While these interrelations are well-documented in qualitative studies and research on transitions from school to VET, evidence remains limited and partly contradictory regarding how aspirations developed by refugees within specially designed pre-vocational programmes influence their chances of accessing VET. A study of a German pre-vocational programme showed, for example, that neither aspirations nor prior education had a significant effect on refugees' success in transitioning to regular education, whereas language skills and supportive relationships were positively associated with successful transitions (Maué et al., 2021). Based on this research gap, our fourth research question investigates whether learning outcomes and post-PAI pathways differ across aspiration groups:

RQ4: How do the identified groups differ in their learning outcomes and post-PAI pathways?

Context, data and measures

The PAI programme

To address our research questions, we used data from participants of the first five PAI cohorts, who started the PAI between 2018 and 2022 in the German, French, or Italian part of Switzerland. The one-year pre-vocational programme is offered in more than 20 occupational fields, including catering, hospitality, construction, sales, and healthcare. It targets recognised refugees and temporarily admitted persons, as well as recent immigrants from EU/EFTA and third countries (extended target group), and holders of protection status S from Ukraine aged 16 and over with work experience but without an upper-secondary-level qualification. Admission is based on an assessment that evaluates participants' potential to complete the programme and transition successfully into an apprenticeship. The PAI is structured similarly to the two-year apprenticeship, including integrating in-company training with school-based education within a specific occupational field. Key elements of the PAI include supportive learning environments, the strengthening of language, academic, practical, and transferable skills, and the provision of individualised support to both PAI participants and companies. The programme thus reflects core elements of high-quality pre-vocational programmes (Pilz, 2021). From 2018 to 2023, more than 4700 refugees and recent immigrants enrolled in a PAI programme (Stalder & Schönbächler, 2025).

Data

PAI participants completed an online questionnaire in German, French, or Italian during a classroom session supervised by their VET teachers. The surveys were conducted annually in late May or early June, approximately two months before the end of the PAI. Before data collection, teachers received instructions from the research team on how to administer the survey and support participants in completing it. Participation was voluntary and based on informed consent. In addition, we used administrative data, including information on each participant's PAI fields, dropout, completion, and post-PAI pathways. The participating cantons provided this individual-level data to the research team annually.

Sample

The sample comprises participants who completed the programme from 2019 to 2023. Participants who left the programme early (16% of all PAI participants, see Stalder & Schönbächler, 2025) and those who were absent on the day of data collection were not surveyed. Of the 3379 participants who completed the PAI, 2719 (80%) filled in the online questionnaire. We further excluded data from 17 participants who provided no reliable responses or did not answer the aspiration question, leaving 2702 in the sample. For the analyses, survey and administrative data were matched using a unique participant identifier.

The remaining participants were distributed relatively evenly across cohorts, with the largest share in Cohort 3 (N = 600; 22.3% of the sample) and the smallest in Cohort 4 (N = 475; 17.6%). Participants completed their PAI in the German-speaking (57.3%), French-speaking (37.2%), and Italian-speaking (5.5%) regions of Switzerland. Most were trained in a PAI field in the service sector (68.8%), followed by industry and manufacturing (30.0%), leaving only a few in agriculture (1.2%). Participants' countries of origin were Eritrea (37.5%), Afghanistan (22.0%), Syria (8.4%), with smaller shares from other Asian (11.6%) or African countries (11.1%). A minority came from Europe (7.6%) and South America (1.7%), both of which are part of the PAI's extended target group. The average age was 25.5 years (SD = 5.80), and 72.9% were male. In addition, 20.6% were married, and 22.2% had children.

Measures

The participants' survey covered their 10-year career aspirations, individual characteristics, PAI learning experiences, and planned pathways directly after the PAI. The cantons provided information on participants' learning outcomes, the occupational field of the PAI, and the realised post-PAI pathways. The measures used in this study are presented in Table 1.

Table 1. Measures used.

	Part. survey	Admin. data	
	No. of items	No. of items	Sample items
Career aspirations			
Long-term career aspirations	1		What kind of work would you like to be doing in 10 years?
Sociodemographic background			
Sex		1	What is the participant's sex?
Age		1	What is the participant's date of birth?
Family	3		Are you married? Do you have children?
Personal resources			
Effort	1		At work (at school), I give my best.
Performance	1		How good is your performance at work (at school)?
Health	1		How healthy do you feel at the moment?
Learning experiences			
PAI occupational field		1	Indicate the occupational field of the participant
Motivating work	3		In my work, I can learn a lot of new things.
Motivating lessons	3		At school, I can learn a lot of new things.
Satisfaction	1		How satisfied are you with the PAI?
Learning outcomes			
Language skills		2	Which proficiency level did the participant reach?
Practical skills		1	Which practical skills level did the participant meet?
Transferable skills		2	How do you rate the participant's reliability?
Post-PAI pathway			
Planned	3		What do you do after the PAI?
Realised		1	What is the follow-up solution for the participant?

Career aspirations: Participants' career aspirations were assessed in an open-ended question: 'What kind of work would you like to be doing in 10 years? Please describe the type of work you would like to do.' Responses were coded using content analysis (see the section *Coding of aspirations*).

Sociodemographic background and *personal resources.* Individual characteristics included family situation ('Are you married', 'Do you have children'?), self-assessed effort (scale from 1: almost never to 5: almost always), performance (scale from 1: very poor to 7: very good), and general health (scale from 1: not healthy at all to 5: very healthy). Administrative data provided information on participants' sex, age, and the PAI occupational field.

Learning experiences. Participants' learning experiences in the PAI were measured based on scales validated in the context of IVET (Keller et al., 2016). They assessed the motivational quality of the learning environment at the company (motivating work) and at school (motivating lessons) and indicated their overall satisfaction with the PAI. Given participants' limited language skills, scales were shortened, and item wording simplified (Stalder et al., 2024). Items for motivating work and lessons were measured on a five-point scale ranging from 1 (almost never) to 5 (almost always), and satisfaction was measured using a seven-point Kunin faces scale (Kunin, 1955). The PAI occupational field was taken from the administrative data.

Learning outcomes. Cantonal authorities assessed each participant's outcomes at the end of the programme. These included practical and transferable skills (rated 1 = *learning goal not met* to 4 = *learning goal exceeded*), based on evaluations by teachers and in-company trainers, and oral and written language skills (rated 1 = *level A or below* to 5 = *level C1 or higher*), based on a standardised language test.

Post-PAI pathway. Planned post-PAI pathways were assessed using two questions in the participants' survey: 'What do you do after the PAI?' and 'What would you most like to do?' Response categories included apprenticeships, employment, and other options. Participants who reported starting or wishing to start an apprenticeship also specified the intended occupation. Information about the realised post-PAI pathways was provided by the cantonal authorities.

Analytical procedure

We first used descriptive analyses to examine the prevalence of specific career aspirations. Second, we applied latent class analysis (LCA) to explore whether distinct groups of PAI participants emerge with qualitatively different career aspiration patterns. Finally, we examined whether these groups differed in individual characteristics, learning experiences, and educational pathways following the PAI.

Coding of aspirations

Participants' answers to the open question on long-term career aspirations were analysed using content analysis (Kuckartz, 2016). We developed an initial category system based on a preliminary examination of the responses and refined it through several rounds of modification. In particular, we scanned the

responses to identify how participants expressed aspirations related to career changes and educational qualifications. The final coding scheme comprised ten response categories: three related to qualifications, two capturing career changes within or across occupational fields, three reflecting job roles and content, one covering broader career themes, and one indicating uncertainty. The response categories and typical answers are presented in Table 2.

The coding was carried out by two research assistants and validated by two qualified researchers. Each participant's responses were coded as binary: 1 if a category was mentioned, 0 if it was not. All response categories could appear in any combination. This also applied to the category 'Uncertainty,' which could be combined with any other answer (e.g., answers like 'I'm not sure yet, maybe I work in the same occupation as now' were coded with 1 for 'occupational field: stability' and 'uncertainty').

To evaluate whether participants aspired to remain in their current PAI field (occupational field: stability) or shift to a different one (occupational field: reorientation), we compared the occupational field indicated in their stated aspiration with their current PAI field. In addition, we used information on participants' planned post-PAI pathways to capture their wish to work in their first occupation (qualification: first IVET), or a job requiring an additional IVET (qualification: additional IVET) or a higher degree (qualification: higher [vocational] qualification).

Table 2. Coding system and anchor examples.

Response category	Anchor examples
Occupational field: stability Aspirations to remain in the PAI field	• I want to work as a car body painter because I enjoy working on vehicles (PAI field: automotive industry). • First, I want to finish my apprenticeship and then continue working in this occupation. • My biggest wish is first to learn how to be a cook properly, and then I want to open a restaurant (PAI field: hotel and restaurant services)
Occupational field: reorientation Aspiration to change to a vocational field that differs from the PAI field	• I would like to work as a specialist in a nursing home (PAI field: construction). • As a hairdresser (PAI field: hotel and restaurant services) • I would like to work as a kitchen assistant (PAI field: construction)
Qualification: First IVET Aspiration to work in a job that corresponds to the planned post-PAI apprenticeship	• I would always work in the same occupation (planned post PAI: apprenticeship as plumber) • I would like to work as a health care assistant in a retirement home in 10 years (planned post PAI: apprenticeship as a health-care assistant)

	• I want to keep working as a plasterer for the rest of my life (planned post PAI: apprenticeship as a plasterer)
Qualification: Additional IVET Aspiration to work in an occupation that requires obtaining an additional IVET qualification, either in the original PAI field or a different one	• After completing the two-year apprenticeship, I would like to continue with a three-year apprenticeship. • I want to expand my occupation, either as a crane operator or a truck driver (planned post PAI: apprenticeship as a mason). • First, I would like to complete my training as an assembly electrician. In 10 years, I would like to work as an electrical installer (planned post PAI: apprenticeship as assembly electrician)
Qualification: Higher (vocational) education Aspiration to pursue an occupation that typically requires a tertiary-level qualification, either in the original PAI field or a different one	• After completing my apprenticeship, I would like to gain some work experience as a health care assistant before continuing my education to become a qualified nurse (planned post PAI: apprenticeship as health care assistant). • In 10 years, I see myself as an architect or civil engineer, because for me, it's better to do a job I'm passionate about than one I hate (planned post PAI: not sure, aspires apprenticeship as architectural draftsperson) • I want to have my [Federal] Diploma as an electrical project manager in installation (planned post PAI: apprenticeship as electrical installer)
Leadership Aspirations for roles involving leadership responsibilities or holding a managerial position	• I want to work as a team leader […]. • Being a department manager […] of a grocery store. • Head chef.
Self-employment/ entrepreneurship Aspirations toward self-employment and the establishment of one's own business	• I will establish my own business, either a carpentry shop or a hair salon. • I would like to open a car body painting garage. • In the future, I would like to have my own business and be my own boss.
Decent work Aspirations related to the desire for decent work, including security, a fair income, and personal development	• I will […] find a good job. That will make me satisfied. • I want to complete my apprenticeship […] and earn a lot of money. • I want a meaningful job.
Broader career themes Aspirations related to a broader understanding of career, including family, leading an independent life, or engaging in society	• A healthy life. • I want to […] bring my family to Switzerland. • I want to […] enjoy my life.
Uncertainty Responses in which participants expressed uncertainty about their future career aspirations	• I don't know yet. • I'm not sure yet. I have not thought much about it. • I can't say anything about my future at this moment.

Latent class analyses

To investigate the categorical structure underlying participants' aspirations, a latent class analysis (LCA) was conducted. LCA is a statistical method used to identify qualitatively distinct unobserved subgroups within a population based on individuals' responses to observed categorical variables (Weller et al., 2020). It assumes population heterogeneity and posits that latent (unobserved) classes account for the observed response patterns.

The analysis was based on the ten aspiration response categories. To determine the optimal number of latent classes, a series of models with increasing numbers of classes was estimated, starting from a one-class solution and then sequentially adding more classes. We used MPlus version 8.11 (Muthén & Muthén, 1998–2017) to run the LCA, following Asparouhov and Muthén's (2012) advice for testing the number of classes. Model fit was evaluated using Akaike's Information Criterion (AIC), the Bayesian Information Criterion (BIC), and the Sample Size-Adjusted BIC (SABIC), with lower values indicating better model fit (Nylund et al., 2007). Additionally, entropy (ideally exceeding 0.80, suggesting more precise classification) and two likelihood ratio tests (aLMR-LRT and BLRT) were considered. Significant p-values from the LRT tests indicate that the model with k classes provides a significantly better fit than the model with k-1 classes.

The LCA included N = 2677 individuals, excluding 25 of the original 2702 cases whose answers could not be categorised within the coding system. After identifying the best-fitting latent class solution, a single categorical variable was created to represent the identified groups. This variable was then used for all subsequent analyses in SPSS IBM Statistics Version 29.0.2.0 (20).

Results

Most salient career aspirations

The first research question aimed to explore the most salient career aspirations of PAI participants. The analysis of open-ended responses revealed diverse career aspirations, ranging in scope. Most participants addressed one (21.5%), two (51.8%), or three (20.5%) of the ten response categories identified in the coding scheme, whereas only a few addressed four (5.5%) or more (0.8%).

The most frequently mentioned aspiration was to remain in the PAI's occupational field (*occupational field: stability*, 57.5%, N = 1464). In contrast, wishing to switch to a different field (*occupational field: reorientation*) was less common, mentioned by about one-fifth of the participants (22.8%, N = 580). Nearly half of the participants expressed a desire to work in 'their' occupation, meaning the apprenticeship they planned to pursue directly after the PAI (*qualification: First IVET*, 49.1%, N = 1315). Some also indicated aspirations to

work in occupations requiring an additional IVET qualification (22.0%, N = 589) or a higher education degree (14.5%, N = 389). About one in ten participants aspired to start their own business (*self-employment/ entrepreneurship*, 11.4%, N = 305) and/or to take on a leadership position (10.5%, N = 282). A similar share linked their aspirations to aspects such as job stability, adequate income, meaningful work, or development opportunities (*decent work*, 9.4%, N = 252). Others referred to broader life goals, including having children and supporting their family, achieving independence from social assistance, or maintaining good health (9.9%, N = 266). A notable proportion of participants (8.9%, N = 239) reported uncertainty about their future.

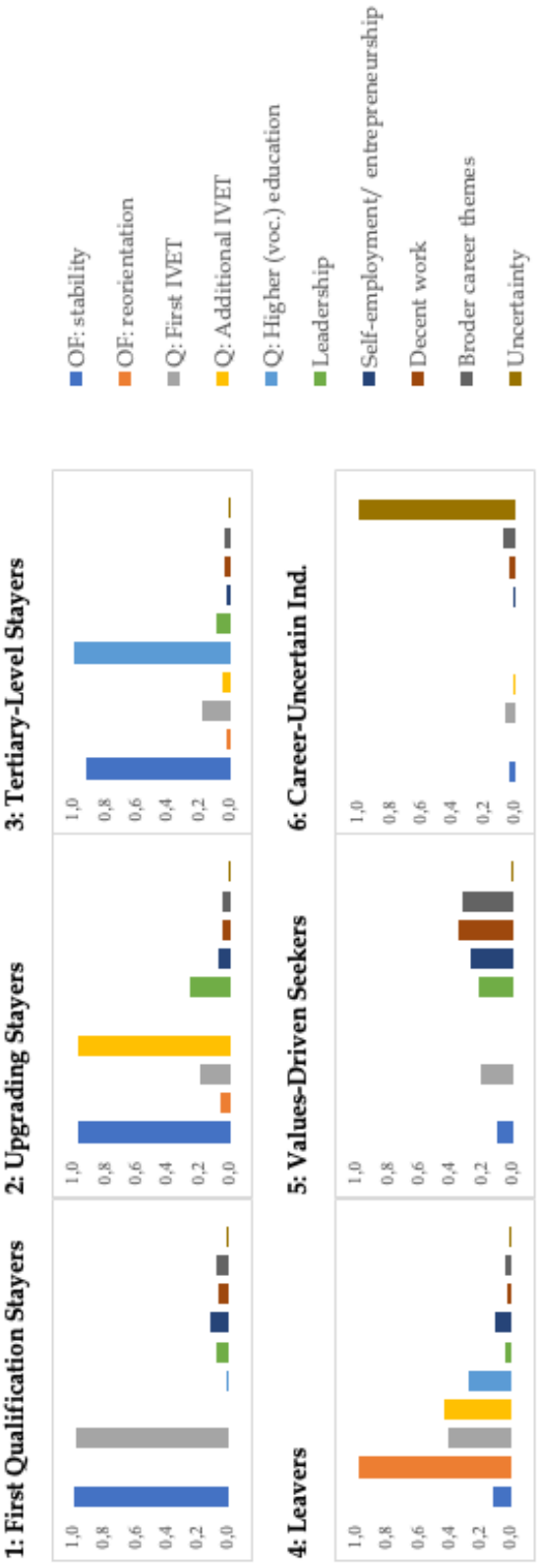
Identifying groups with different career aspiration patterns

The second research question examined whether distinct groups of participants with different career aspiration patterns can be identified. Table 3 presents the fit indices of the latent class analysis (LCA) for one- to seven-class solutions. Model fit improved with increasing numbers of classes, and both the aLMR-LRT and the BLRT were significant ($p < .001$). The six-class model was selected based on a combination of statistical fit, parsimony and interpretability (Nylund-Gibson et al., 2022). It showed a favourable BIC, high entropy (0.95), and clearly distinguishable and meaningful classes, all exceeding 5% of the total sample. The seven-class model, despite yielding the best statistical fit, was rejected because it included classes with fewer than 5% of participants and lacked the clear interpretability of the six-class solution.

Table 3. Fit indices for seven latent class models.

Model	LL	AIC	BIC	SABIC	Entropy	aLMR-LRT p-value	BLRT p-value
1 class	-11834.27	23688.53	23747.46	23715.69	-	-	-
2 classes	-11126.54	22295.08	22418.82	22352.09	0.96	<.001	<.001
3 classes	-10618.86	21301.73	21490.29	21388.61	0.95	<.001	<.001
4 classes	-10257.98	20601.95	20855.32	20718.70	0.93	<.001	<.001
5 classes	-10067.92	20243.84	20562.04	20390.46	0.94	<.001	<.001
6 classes	-9890.45	19910.90	20293.91	20087.38	0.95	<.001	<.001
7 classes	-9783.23	19718.46	20166.29	19924.81	0.94	<.001	<.001

Note. LL: loglikelihood; AIC: Akaïke information criterion; BIC: Bayesian information; SABIC: Sample Size-Adjusted BIC; aLMR-LRT: adjusted Lo–Mendell–Rubin Likelihood Ratio Test; BLRT: Bootstrapped Likelihood Ratio Test.



Note. OF: Occupational field; Q: Qualification.

Figure 1. Profiles of the six aspiration groups.

Figure 1 shows the aspiration profiles based on the item response probabilities for each of the six groups. Higher values represent a greater likelihood that participants expressed that particular aspiration.

Across the six groups identified, clear patterns emerged in participants' career aspirations regarding the work they envisage in ten years. Groups 1 (First Qualification Stayers), 2 (Upgrading Stayers), and 3 (Tertiary-Level Stayers), together comprising 54.5% of the sample, were marked by an explicit intention to remain in the PAI field, but differed in the targeted qualification level.

Groups 4 to 6 included those who wanted to leave their PAI field (Group 4), those who highlighted job values and/or broader life goals (Group 5), and those who were uncertain about their future (Group 6). Aspirations for leadership, self-employment, and broader career themes were present across several groups.

Group 1 (First Qualification Stayers; 34.2% of the sample) comprises participants who wished to remain in their current PAI field (100.0% of the group addressed this response category) and aimed for jobs corresponding to the IVET qualification they plan to acquire after completing the PAI (97.0%). A minority also aspired to self-employment (12.0%), leadership roles (7.0%), or jobs reflecting broader career themes (8.0%).

Group 2 (Upgrading Stayers; 11.8%) includes participants who wished to remain in their current PAI field (98.0%) and to pursue jobs associated with a second IVET qualification (97.0%). Most often, these participants planned to start with a two-year apprenticeship but aimed eventually to work in a job requiring a qualification from a three- or four-year apprenticeship. A notable share of participants in this group also aspired to leadership roles (25.0%), substantially more than the First Qualification Stayers, or to self-employment (7.0%).

Group 3 (Tertiary-Level Stayers; 8.5%) consists of participants who wished to remain in their PAI field (93.0%) while pursuing jobs that require a tertiary-level qualification, either a higher vocational or academic degree (100.0%). Those concerned often mentioned that they planned to start with a three- or four-year apprenticeship and continue with higher education afterwards. Some of them aspired also to leadership roles (9.0%) or mentioned broader career themes (3.0%).

Group 4 (Leavers; 21.8%) comprises participants who wished to reorient by leaving their PAI field (98.0%). Nearly half of them indicated that they aimed for a job requiring a first IVET qualification (41.0%), and most often planned to switch occupational fields directly after the PAI. Others wanted to work in a job requiring (also) an additional IVET qualification (43.0%): They planned to start with an apprenticeship after the PAI and add a second qualification later on. Also in this sub-group, most participants wanted to change their occupational field directly after the PAI. A third group mentioned that they aspired to work that

required higher education qualifications (27.0%), most often a higher vocational degree, which can be obtained after an IVET qualification.

Group 5 (Values-Driven Seekers; 15.4%) covers participants who, rather than naming an occupational field, prioritised job values, often aiming for roles that emphasise decent work (35.0%) and frequently articulating broader career-related life goals (33.0%), such as starting a family or gaining independence from social welfare. Many also aspired to leadership roles (22.0%) or self-employment (26.0%). As most of these participants did not specify a particular occupational field, it is unclear whether they intended to remain in their current PAI field or move to another.

Group 6 (Career-Uncertain Individuals; 8.3%) are participants who were completely uncertain about the jobs they want to do in the future (100.0%). They rarely specified qualifications or occupational fields, and only a few mentioned broader career themes (7.0%) or decent work (3.0%).

Socio-demographic background, personal resources, and learning experiences

The third research question explored how the identified groups differ in their socio-demographic background, personal resources, and learning experiences in the PAI. Results showed that the six groups differed in gender, age, and family situation (Table 4). With one exception, all groups had a male majority; the highest share was among First Qualification Stayers (78.1%). Tertiary-Level Stayers were the only group with more females than men. First Qualification Stayers and Values-Driven Seekers were, on average, older and more likely to have children; Career-Uncertain Individuals and Leavers were younger, less often married and less likely to have children.

Personal resources such as self-assessed effort, performance and general health varied only slightly across the six groups. Overall, participants in all groups rated their effort at work and in school very positively. Tertiary-Level Stayers reported higher levels of effort in the workplace than Leavers, Values-Driven Seekers and Career-Uncertain Individuals. Career-Uncertain Individuals reported the lowest school effort. Individuals of all groups self-assessed their performance in the workplace and at school as very high, and only the Upgrading Stayers exceeded Career-Uncertain Individuals. All groups expressed positive views of their health, except for the Career-Uncertain Individuals, who reported significantly poorer health than all other groups.

The participants' learning experiences were, on average, positive across all groups. Post-hoc tests revealed that First Qualification Stayers and Upgrading Stayers found their work and lessons more motivating and were more satisfied with the PAI than Leavers and Career-Uncertain Individuals. Also, the Tertiary-Level Stayers rated their work more positively than Leavers and Career-

Uncertain Individuals. They, however, did not differ from them in their perceptions of the school lessons or in their satisfaction with the PAI, and were less positive about their lessons than the Upgrading Stayers. Overall, Leavers and Career-Uncertain Individuals were the least optimistic: They perceived their work as less motivating than most other groups and were the least satisfied with the PAI and, in particular, less satisfied than First-Qualification Stayers and Upgrading Stayers.

Learning outcomes and post-PAI pathways

The fourth research question explored how the identified groups differ in their learning outcomes and post-PAI pathways. Results show that Tertiary-Level Stayers scored highest across all learning outcomes, with noticeably stronger language proficiency than other groups and higher practical skills than most (Table 5). The other groups differed in part regarding their practical and transferable skills, but not in their language skills. First Qualification Stayers and Upgrading Stayers were attributed higher practical and transferable skills than Career-Uncertain Individuals, and higher transferable skills than Leavers. Career-Uncertain Individuals showed the lowest scores across the three learning outcomes, including significantly lower practical and transferable skills than the three stayer groups.

Results on post-PAI pathways show that, across the total sample, starting an apprenticeship was the most usual pathway after the PAI (70.9%), with significantly more participants beginning a two-year apprenticeship (51.6%) than a three- or four-year one (19.3%). Other routes, such as entering short-term educational programmes (6.4%) or employment (4.7%), were less common, and only a few participants transitioned to upper-secondary general education (gymnasium) (0.3%). In 8.8% of the cases, the cantonal authorities reported that the participant was not in education, employment, or training (NEET) after the PAI. In 8.9% of the cases, they did not know the participant's pathway.

Table 4. Socio-demographic background, personal resources and learning experiences of the six groups.

	First qualification stayers (A)	**Upgrading stayers (B)**	**Tertiary-level stayers (C)**	**Leavers (D)**	**Values-driven seekers (E)**	**Career-uncertain individuals (F)**	**χ^2, F, p**
Sociodemographic background	% or M (SD)	% or M (SD)	% or M (SD)	% or M (SD)	% or M (SD)	% or M (SD)	
Male (%)	78.1*	76.6	44.4*	69.6	76.7	75.1	$\chi^2(5, N=2670)=113.19$, $p < .001$
Age (mean)	26.1_{DF} (5.8)	25.7_{DF} (5.2)	25.0_{E} (5.9)	24.4_{ABE} (5.3)	26.7_{CDF} (6.4)	24.2_{ABE} (5.6)	$F(5, 2655)=12.67$, $p < .001$
Married: yes (%)	23.3*	20.6	21.1	17.0*	22.6	15.8	$\chi^2(5)=12.83$, $p = .025$
Children: yes (%)	25.1*	23.7	21.1	16.8	26.8*	15.8*	$\chi^2(5)=24.97$, $p < .001$
Personal resources	M (SD)	M (SD)	M (SD)	M (SD)	M (SD)	M (SD)	
Effort (workplace)	4.6 (0.6)	4.6 (0.6)	4.7_{DEF} (0.6)	4.6_{C} (0.7)	4.5_{C} (0.7)	4.5_{C} (0.7)	$F(5, 2650) = 4.19$, $p < .001$
Effort (school)	4.4_{F} (0.7)	4.4_{F} (0.8)	4.4_{F} (0.7)	4.3 (0.8)	4.4_{F} (0.8)	4.1_{ABCE} (0.9)	$F(5, 2650) = 4.50$, $p < .001$
Performance (workplace)	6.1 (0.9)	6.3_{DF} (0.8)	6.2 (0.9)	6.0_{B} (1.0)	6.2 (0.9)	6.0_{B} (0.9)	$F(5, 2650) = 5.08$, $p < .001$
Performance (school)	5.9 (1.0)	6.0_{F} (0.9)	5.9 (1.0)	5.8 (1.0)	5.9 (1.0)	5.7_{B} (1.1)	$F(5, 2650) = 3.18$, $p = .007$
Health	4.5_{DF} (0.8)	4.6_{DF} (0.8)	4.5_{F} (0.7)	4.3_{AB} (0.9)	4.4_{F} (0.8)	4.2_{ABCE} (1.1)	$F(5, 2650) = 9.62$, $p < .001$
Learning experiences	M (SD)	M (SD)	M (SD)	M (SD)	M (SD)	M (SD)	
Motivating work	4.4_{DF} (0.6)	4.4_{DF} (0.6)	4.3_{DF} (0.7)	4.0_{ABCE} (0.8)	4.3_{D} (0.7)	4.1_{ABC} (0.7)	$F(5, 2650) = 19.94$, $p < .001$
Motivating lessons	4.3_{DF} (0.7)	4.3_{CDF} (0.7)	4.1_{B} (0.8)	4.1_{AB} (0.8)	4.2 (0.8)	4.0_{AB} (0.8)	$F(5, 2650) = 8.07$, $p < .001$
Satisfaction with the PAI	6.1_{DF} (1.1)	6.3_{CDEF} (1.01)	6.0_{B} (1.2)	5.8_{AB} (1.4)	5.9_{B} (1.2)	5.7_{AB} (1.4)	$F(5, 2650) = 10.91$, $p < .001$

Notes.
Categorical variables: Associations with group membership were examined using χ^2 tests; cells with $|SAR| \geq 2.00$ are indicated by an asterisk (*).
Continuous variables: Group differences were examined using ANOVA; subscripts indicate significant differences between means ($p < .05$).

Table 5. Learning outcomes of the six groups.

	First qualification stayers (A)	Upgrading stayers (B)	Tertiary-level stayers (C)	Leavers (D)	Values-driven seekers (E)	Career-uncertain individuals (F)	F, p
	M (SD)	M (SD)	M (SD)	M (SD)	M (SD)	M (SD)	
Language skills	2.7_{C} (0.6)	2.7_{C} (0.6)	3.1_{ABDEF} (0.7)	2.6_{C} (0.7)	2.7_{C} (0.6)	2.5_{C} (0.6)	F(5, 1769) = 12.39, p < .001
Practical skills	3.2_{CF} (0.6)	3.2_{F} (0.6)	3.4_{ADEF} (0.6)	3.1_{C} (0.7)	3.1_{C} (0.6)	3.0_{ABC} (0.8)	F(5, 1769) = 8.28, p < .001
Transferable skills	3.3_{DF} (0.7)	3.3_{DEF} (0.7)	3.3_{F} (0.7)	3.1_{AB} (0.8)	3.1_{B} (0.7)	3.0_{ABC} (0.8)	F(5, 1769) = 7.11, p < .001

Note.
Group differences were examined using ANOVA; subscripts indicate significant differences between means (p < .05).

The groups differed significantly in their post-PAI pathways (Table 6). Overall, the three stayer groups started more often with an apprenticeship than the Leavers, Values-Driven Seekers and Career-Uncertain Individuals. Upgrading Stayers most often continued with a two-year apprenticeship (73.5%), Tertiary-Level Stayers were more often in three- or four-year apprenticeships (32.6%). Leavers were more often NEET or enrolled in (another) short programme than participants of other groups. Values-Driven Seekers were more likely to move into employment without VET (7.8%). Career-Uncertain Individuals did not stand out significantly from the other groups. They were only slightly more likely to be NEET than the three stayer groups and started more often with a two-year apprenticeship than Leavers.

Table 6. Post-PAI pathways of the six groups.

	First qualification stayers	**Upgrading stayers**	**Tertiary-level stayers**	**Leavers**	**Values-driven seekers**	**Career-uncertain individuals**
Two-year apprenticeship	51.4%*	73.5%*	41.0%*	44.9%*	51.0%	51.1%
Three- or four-year apprenticeship	21.4%*	9.8%*	32.6%*	19.4%	14.8%	18.4%
Upper-sec. general education	0.2%	0.0%	0.4%	0.7%*	0.0%	0.0%
Short-term education/ bridging offer	5.6%	3.2%*	4.4%	9.3%*	7.5%	6.7%
Employment	5.6%	2.2%	4.8%	3.1%*	7.8%*	3.6%
NEET	7.8%	3.2%*	7.5%	12.4%*	10.7%	9.4%
Pathway unknown	8.1%	8.2%	9.3%	10.3%	8.3%	10.8%

Note: Chi^2: $F(30, N = 2677) = 148.5$, $p < .001$; cells with $|SAR| \geq 2.00$ are indicated by an asterisk (*).

Discussion

Aspirations, resources and career outcomes

This study examined the long-term career aspirations of refugees participating in a pre-vocational programme, identified subgroups with distinct aspiration patterns, and explored how these patterns are linked to participants' backgrounds, resources, learning experiences, and post-PAI pathways. Results show that six out of ten PAI participants surveyed aspired to remain in their current occupational field, striving for stability and continuity in their career paths. Aspirations linked to occupational reorientation or to specific work roles, such as leadership or self-employment, were less common. Many participants

mentioned vocational qualifications, such as completing a first IVET degree, followed by an additional IVET or tertiary-level qualification. It is also noteworthy that most of them explicitly mentioned the occupation they hoped to practise in 10 years, even though we did not ask them to name a specific occupation (in German, 'Beruf') or field, but rather to describe the kind of work they would like to do. The findings underscore the strong occupation-based structure of the Swiss labour market, where access to employment is closely linked to the attainment of a VET qualification (Meyer, 2009).

The six career aspiration groups

The most salient aspiration – the wish to pursue a career in the occupational field of the PAI – was a defining feature of the identified aspiration groups. Three of the six groups were characterised by a firm intention to remain within the PAI field. Participants in these groups reported highly positive learning experiences in both the workplace and the school. They were more likely to enter an apprenticeship directly after completing the PAI than those in the other three groups. The high proportion of stayers suggests that the programme has largely achieved its goal of inspiring and preparing participants for specific occupations (Aerne & Bonoli, 2021). Notably, two of the stayer groups, including the Upgrading Stayers and Tertiary-Level Stayers, explicitly anticipated further qualification steps. They planned to pursue a three- or four-year apprenticeship after completing a two-year apprenticeship, or to undertake a higher vocational education following a three- or four-year apprenticeship. This finding indicates that these participants were well informed about pathways and further education opportunities in VET, which aligns with the PAI's aim of familiarising participants with the Swiss VET system (Stalder et al., 2024).

Roughly one-fifth of the PAI participants indicated that they wanted to work in an occupational field different from their current one. Their learning experiences and learning outcomes were less positive, and their rates of becoming NEET or entering short-term programmes were slightly higher than those of stayers. This finding aligns with dropout research, which indicates that learners working in less supportive environments and having poorer academic achievements are more likely to leave their apprenticeship early and change occupations (Böhn & Deutscher, 2022; Lehtonen et al., 2022). The fact that many Leavers began an apprenticeship in another occupational field immediately after the PAI demonstrates that the programme offers a certain degree of permeability and mobility. Furthermore, the observation that the Leavers articulated concrete occupational aspirations and corresponding qualifications suggests that they, too, recognise the importance of obtaining a VET qualification (Stalder et al., 2024).

Values-Driven Seekers, who accounted for about one in six participants, emphasised various job-related values such as decent work, independence, and family. In contrast to other groups, only a few mentioned a specific occupational field. Their learning experiences were average, and following the PAI, they were more likely to enter unskilled employment. Given the heterogeneity of this group of participants, interpreting their aspiration pattern is not straightforward. It may be that their mixed and not particularly positive learning experiences are associated with a future-orientation, in which securing any employment that fulfils key extrinsic (e.g., pay, status, job positions, safety) and intrinsic (e.g., meaningful work, advancement, alignment between work and personal values) career needs is more important than learning a specific occupation (Arthur et al., 2005; Masdonati et al., 2021).

Career-Uncertain Individuals expressed complete uncertainty about their future. They reported relatively low satisfaction, performance, and health, and had the weakest learning outcomes, particularly in practical and transferable skills. They were slightly younger and had fewer family obligations. The pressure to immediately secure a stable future might thus be less pronounced compared to the other groups (Niessen et al., 2023). Consistent with this interpretation, the post-PAI trajectories of the uncertain individuals were less defined, with slightly higher NEET rates. Representing only 8.3% of participants, the Career-Uncertain Individuals group is relatively small. This is noteworthy, as prior research in European and US contexts has shown that refugees often struggle to make long-term plans due to immediate challenges, such as managing daily life, securing housing, and reaching financial stability (Dryden-Peterson, 2019; Newman, Bimrose, et al., 2018; Zacher, 2019). Ten years is a long time for those whose life histories and experiences of displacement have taught them that the future is uncertain. Remarkably, the majority of the Career-Uncertain Individuals still entered apprenticeships after the PAI. Their uncertainty may therefore relate only to the long-term career and might point to an openness towards future opportunities, rather than to a general disengagement from VET.

Aspiring VET as a valid and realistic pathway

Research on aspirations often distinguishes between (idealistic) aspirations and (realistic) expectations, with the former referring to personal goals under ideal conditions and the latter to goals a person considers attainable (Boccagni, 2017; Napolitano et al., 2020; Rojewski, 2005). Our results suggest that the aspirations expressed by PAI participants are not genuinely idealistic but close to realistic expectations. Most participants envisaged employment attainable through a VET qualification. Fantasy jobs or occupations requiring an academic degree were rarely expressed. When they were, participants aspired to more demanding occupations attainable through further education and training after an IVET

programme. Overall, PAI participants seemed well aware of the opportunities available to them in the labour market. This likely reflects their life situation: They are significantly older than young people who are still in school when making their career choices, cannot rely on (financial) family support, and must pay greater attention to becoming self-sufficient as quickly as possible (Newman, Bimrose, et al., 2018).

The occupational sectors covered by the PAI programme, such as hospitality, catering, and construction, are often seen as less attractive (Colic-Peisker & Tilbury, 2006; Udayar et al., 2021; Zacher, 2019). However, to conclude from our findings that the PAI participants are being pushed into such jobs would be misleading. The high level of satisfaction with their work suggests that, although the PAI programme clearly channels their aspirations, they also align with their interests. This result highlights not only that many participants have become familiar with the career pathways offered by the Swiss VET system (Stalder et al., 2024) but also that VET pathways are perceived as valuable careers, offering opportunities for decent and meaningful work (Masdonati et al., 2021). This is particularly noteworthy given that most refugees come from countries where only a minority of learners enrol in VET programmes and vocational pathways generally have a low standing (Billett et al., 2022).

High resources, positive experiences, and favourable outcomes

In line with social cognitive career theory, the six groups differed in their personal background and resources, their learning experiences at school and in the workplace, and their learning outcomes (Lent & Brown, 2019). However, these differences were relatively small. Overall, most participants described their learning experiences as very positive and indicated that they had been strongly engaged and performed well. Similarly, in their final assessments, schools and training companies confirmed that most participants had strong practical and transversal skills, although many still struggled with language difficulties (Stalder & Schönbächler, 2025).

This generally positive evaluation may appear surprising. While our findings may be explained by the selectivity of our sample – comprising only PAI participants who completed the programme – they are supported by previous research. Migration and refugee studies have consistently shown that refugees who feel that their skills, efforts, and work are valued often express strong gratitude and high satisfaction (Boccagni, 2017; Knappert et al., 2019; Spanner & Maue, 2022). Other studies likewise highlight that access to VET and meaningful employment are core indicators of successful resettlement, fostering not only economic self-sufficiency but also a sense of purpose, occupational identity and well-being (Campion, 2018; Curry et al., 2017; Dryden-Peterson, 2019).

Another explanation of the overall positive evaluation may be that participants adjusted their aspirations and expectations regarding VET and employment, settling for the opportunities they received. While our data do not allow us to examine whether such cooling-down processes have occurred, prior research suggests that this interpretation is less plausible in our case. Processes of cooling down have predominantly been observed among highly qualified refugees and migrants whose previous work experience and educational qualifications were not recognised, forcing them to lower their aspirations and accept low-quality jobs to gain employment (Knappert et al., 2019; Wehrle et al., 2019). In contrast, refugees with more limited educational backgrounds, as in our study, often reported a high level of satisfaction with their VET and employment opportunities.

Embeddedness in the VET system

The aspirations of refugees, as well as the factors that hinder or facilitate their realisation, must always be interpreted in relation to the educational and labour-market contexts of the host country. The PAI mirrors the structure, goals, and learning content of Switzerland's established dual VET system, which is vocation-bound and closely linked to employers' willingness to offer apprenticeship places. The PAI's focus on specific occupational fields and the high share of workplace learning likely contributed to the clear occupation-related aspirations observed among most refugees.

This raises the question of how preparatory programmes might be designed in countries where VET is more school-based and where transition hurdles may be more pronounced after upper secondary education (e.g., when entering higher education or the labour market). Studies from Nordic countries show that language-related, cultural, and structural barriers faced by refugees resemble those observed in our study, and that introductory and preparatory programmes constitute important pathways into higher education and the labour market (Abamosa, 2023; Anas, 2025; Olsson et al., 2023). These studies also emphasise the need for targeted and tailored provisions, well-qualified educators, a strong focus on language learning, and support for accessing the labour market, including network-building, job-seeking strategies, work-experience placements, or subsidised employment (Abamosa, 2023; Anas, 2025; Ennerberg, 2021). Ultimately, regardless of a country's VET system, the objective is to empower refugees and migrants to shape their educational and occupational careers. Entering VET is one possible pathway and helps strengthen self-esteem, self-efficacy and confidence in realising one's aspirations (Olsson et al., 2023).

Limitations and further research

This study is among the first to examine the aspirations of low-qualified refugees using a large-scale survey of participants in a pre-vocational programme, linking self-reported data with administrative records. It provides valuable insights into participants' career goals and allows an examination of how these relate to their personal resources, learning situations, and VET pathways. Some limitations concern the sample's selectivity and the resulting limited generalisability of the findings, particularly for less successful refugees who do not enter such vocational programmes or leave them early. The language problems many participants still experience may also have affected their ability to answer the question on aspirations in a detailed and reflective manner, even when supported by their teachers. Moreover, despite the overall positive experiences, it remains unclear to what extent participants' aspirations reflect perceived labour-market barriers and the resulting compromises toward lower-prestige, lower-reward occupations (Rojewski, 2005). Complementary interviews, possibly with interpreters, would be needed to address this aspect more thoroughly (Abkhezr et al., 2018; Goodkind & Deacon, 2004).

Within the scope of this article, it was not possible to examine in detail how personal and contextual factors shape the development of aspirations. Future research should explore the complex interplay among these factors, including participants' cultural background and country of origin, language skills, and prior education and work experience (Hebbani & Khawaja, 2018; Knappert et al., 2019; Zacher, 2019). It would also be valuable to investigate the characteristics of the PAI occupational fields, the crucial role that VET teachers and trainers play in guiding and supporting refugees throughout the programme, and how their support may foster or hinder the development of aspirations (Gericke et al., 2018). A deeper understanding of variations in aspirations would further inform how refugees and other migrant groups can be better assisted, for example, through more targeted information on educational opportunities (Wolter & Zumbuehl, 2018). Finally, given the country-specific nature of VET systems, similar studies in other contexts would help show whether the aspiration patterns hold more broadly and strengthen the evidence for supporting refugees across different education and labour-market systems.

Conclusion

Integration into VET and the labour market remains challenging for many refugees, as disrupted educational pathways, unrecognised prior competences, and psychosocial pressures often constrain their career aspirations. Aspirations are shaped by learning and work experiences, as well as perceptions of accessible pathways. Our findings indicate that when supportive structures are in place,

aspirations can be translated into realistic and viable career trajectories. The high share of PAI participants who aspired to remain in their current occupational field suggests that well-targeted pre-vocational programmes can foster stable and structured career planning and support meaningful career pathways. In general, our results highlight the importance of contextual factors such as high-quality training, a focus on acquiring language skills, and guidance to support refugees' positive career development (Zacher, 2019).

The high rate of participants who had started apprenticeship training after the PAI shows that the programme has also achieved its goal of contributing to the supply of skilled workers (Aerne & Bonoli, 2021). The growing recognition of refugees' value to employers for workforce development, the strong labour-market alignment of VET, and the opportunities for upward mobility inherent to the Swiss VET system likely contributed to the programme's success.

Ultimately, successful VET and employment outcomes for refugees are characterised not only by financial independence but also by the recognition of their skills and their possibilities to engage in meaningful work. These are key markers of successful resettlement that should remain central to VET policy and the design of VET programmes for refugees, regardless of the VET system's structure. Continued improvement of vocational pathways and supportive learning environments will be essential for realising refugees' aspirations and strengthening their long-term participation in society.

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