Nordic Journal of Vocational Education and Training, 2025



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

Barbara E. Stalder & Marie-Theres Schönbächler

Bern University of Teacher Education, Switzerland

(barbara.stalder@phbern.ch)

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)

NJVET, Vol. 15, No. 4, 99–131 https://doi.org/10.3384/njvet.2242-458X.2515499



Peer-reviewed article
Hosted by Linköping University Electronic Press © The authors

source: https://doi.org/10.57694/8181 | downloaded: 1.11.2026

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.

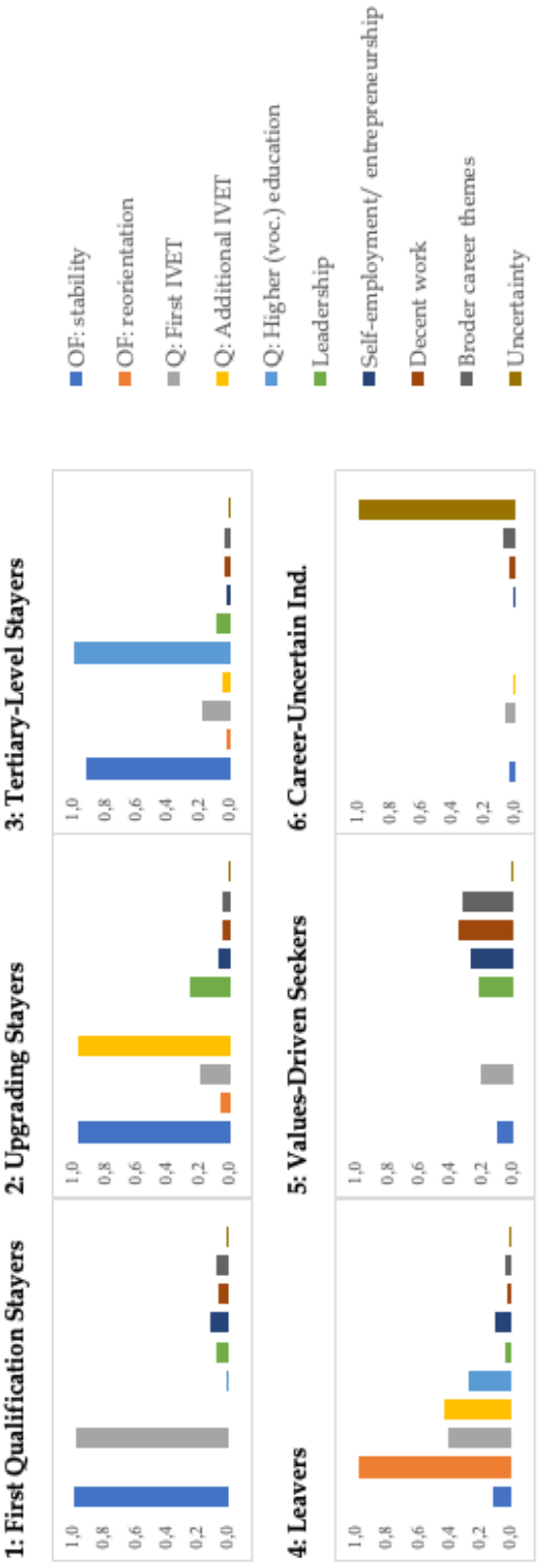
Identifying groups with different career aspiration patterns

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.

Acknowledgements

This study was supported by a grant from the Swiss State Secretariat for Migration SEM (project number: 1062001386). We want to thank Dr Fabienne Lüthi for assisting us in developing the coding system and conducting preliminary data analyses, and the team at the Centre for Evaluation for their support in data collection and coding the participants' answers. We also extend our appreciation to the PAI participants in our study and to the cantonal authorities for their support throughout the project. Finally, we acknowledge two anonymous reviewers for their thoughtful and valuable comments on an earlier version of the manuscript.

Notes on contributors

Barbara E. Stalder, PhD, is a professor of educational and social sciences at the Bern University of Teacher Education, Switzerland. Her research focuses on student engagement and learning, career development in VET, and career success over the life course.

Marie-Theres Schönbächler, PhD, em., is the former head of the Centre for Evaluation at Bern University of Teacher Education, Switzerland.

References

Abamosa, J. Y. (2023). Social inclusion of refugees into higher education: Policies and practices of universities in Norway. *Educational Review*, *75*(6), 1181–1201. https://doi.org/10.1080/00131911.2021 .2009443

Abkhezr, P., McMahon, M., Glasheen, K., & Campbell, M. (2018). Finding voice through narrative storytelling: An exploration of the career development of young African females with refugee backgrounds. *Journal of Vocational Behavior*, *105*, 17–30. https://doi.org/10.1016/j.jvb.2017.09.007

Aerne, A., & Bonoli, G. (2021). Integration through vocational training: Promoting refugees' access to apprenticeships in a collective skill formation system. *Journal of Vocational Education & Training*, *75*(3), 419–438. https://doi.org/10.1080/13636820.2021.1894219

Allan, B. A., Batz-Barbarich, C., Sterling, H. M., & Tay, L. (2018). Outcomes of meaningful work: A meta-analysis. *Journal of Management Studies*, *56*(3), 500–528. https://doi.org/10.1111/joms.12406

Anas, A. L. (2025). Higher education opportunities and challenges for youth with forced migratory backgrounds in the Nordic countries: A qualitative systematic review. *SN Social Sciences*, *5*(10). https://doi.org/10.1007/s43545-025-01200-y

Arthur, M. B., Khapova, S. N., & Wilderom, C. P. M. (2005). Career success in a boundaryless career world. *Journal of Organizational Behavior*, *26*(2), 177–202. https://doi.org/10.1002/job.290

Arthur, N., McMahon, M., Abkhezr, P., & Woodend, J. (2025). Beyond job placement: Careers for refugees. *International Journal for Educational and Vocational Guidance, 25*, 251–269. https://doi.org/10.1007/s10775-023-09579-x

Ashby, J. S., & Schoon, I. (2010). Career success: The role of teenage career aspirations, ambition value and gender in predicting adult social status and earnings. *Journal of Vocational Behavior*, *77*(3), 350–360. https://doi.org/10.1016/j.jvb.2010.06.006

Ashour, S. (2021). Access for Syrian refugees into higher education in Germany: A systematic literature review. *European Journal of Higher Education*, *12*(1), 98–116. https://doi.org/10.1080/21568235.2020.1871392

Asparouhov, T., & Muthén, B. (2012). *Using Mplus TECH11 and TECH14 to test the number of latent classes* (Mplus Web Notes, No. 14). https://www.statmodel.com/examples/webnotes/webnote14.pdf

Baker, W., Sammons, P., Siraj-Blatchford, I., Sylva, K., Melhuish, E. C., & Taggart, B. (2014). Aspirations, education and inequality in England: Insights from the Effective Provision of Pre-school, Primary and Secondary Education Project. *Oxford Review of Education*, *40*(5), 525–542. https://doi.org/10.1080/03054985.2014.953921

Bell Sebastián, J., Fluixá Marhuenda, F., & Carmona Rodríguez, C. (2025). Vocational education and training pathways of students with a migrant background in Europe: A systematic review. *Educational Review*, 1–23. https://doi.org/10.1080/00131911.2025.2514038

Billett, S., Stalder, B. E., Aarkrog, V., Choy, S., Hodge, S., & Le, A. H. (Eds.). (2022). *The standing of vocational education and the occupations it serves: Current concerns and strategies for enhancing that standing*. Springer Nature. https://doi.org/10.1007/978-3-030-96237-1.

Boccagni, P. (2017). Aspirations and the subjective future of migration: Comparing views and desires of the "time ahead" through the narratives of immigrant domestic workers. *Comparative Migration Studies*, *5*, Article 4. https://doi.org/10.1186/s40878-016-0047-6

Böhn, S., & Deutscher, V. (2022). Drop-out from initial vocational education: A meta-synthesis of reasons from the apprentice's point of view. *Educational Research Review*, *35*, Article 100414. https://doi.org/10.1016/j.edurev.2021.100414

Brell, C., Dustmann, C., & Preston, I. (2020). The labor market integration of refugee migrants in high-income countries. *Journal of Economic Perspectives*, *34*(1), 94–121. https://doi.org/10.1257/jep.34.1.94

Busse, R., & Maué, E. (2025). When do prevocational programs ease the transition to vocational education and training? *Vocations and Learning*, *18*, Article 8. https://doi.org/10.1007/s12186-025-09357-6

Campion, E. D. (2018). The career adaptive refugee: Exploring the structural and personal barriers to refugee resettlement. *Journal of Vocational Behavior*, *105*, 6–16. https://doi.org/10.1016/j.jvb.2017.10.008

Coleman Gallagher, V., Baranik, L. E., Hamdani, M., Valcea, S., Kiratikosolrak, P., & Wheeler, A. R. (2021). Multidimensional (mis)fit: A systemic view of the refugee employment journey from an HRM perspective. In M. R. Buckley, A. R. Wheeler, J. E. Baur, & J. R. B. Halbesleben (Eds.), *Research in personnel and human resources management* (Vol. 39, pp. 241–290). https://doi.org/10.1108/s0742-730120210000039008

Colic-Peisker, V., & Tilbury, F. (2006). Employment niches for recent refugees: Segmented labour market in twenty-first century Australia. *Journal of Refugee Studies*, *19*(2), 203–229. https://doi.org/10.1093/jrs/fej016

Curry, O., Smedley, C., & Lenette, C. (2017). What Is "successful" resettlement? Refugee narratives from regional New South Wales in Australia. *Journal of Immigrant & Refugee Studies*, *16*(4), 430–448. https://doi.org/10.1080/15562948.2017.1358410

Dryden-Peterson, S. (2019). Refugee education: Backward design to enable futures. *Education and Conflict Review,* (2), 49–53.

Ennerberg, E. (2021). Trajectories of newly arrived migrants in the Swedish introduction program. *Nordic Journal of Transitions, Careers and Guidance*, *2*(1), 14–26. https://doi.org/10.16993/njtcg.33

Fedrigo, L., Cerantola, M., Frésard, C. E., & Masdonati, J. (2021). Refugees' meaning of work: A qualitative investigation of work purposes and expectations. *Journal of Career Development*, *50*(1), 52–68. https://doi.org/10.1177/08948453211066343

Gericke, D., Burmeister, A., Löwe, J., Deller, J., & Pundt, L. (2018). How do refugees use their social capital for successful labor market integration? An exploratory analysis in Germany. *Journal of Vocational Behavior*, *105*, 46–61. https://doi.org/10.1016/j.jvb.2017.12.002

Goodkind, J. R., & Deacon, Z. (2004). Methodological issues in conducting research with refugee women: Principles for recognizing and re-centering the multiply marginalized. *Journal of Community Psychology*, *32*(6), 721–739. https://doi.org/10.1002/jcop.20029

Hebbani, A., & Khawaja, N. G. (2018). Employment aspirations of former refugees settled in Australia: A mixed methods study. *Journal of International Migration and Integration*, *20*(3), 907–924. https://doi.org/10.1007/s12134-018-0635-4

Hokkinen, M., & Barner-Rasmussen, W. (2023). Refugees' language learning and career aspirations: An agentic lens. *Journal of International Management*, *29*(5), Article 101061. https://doi.org/10.1016/j.intman.2023.101061

Howard, K. A. S., Carlstrom, A. H., Katz, A. D., Chew, A. Y., Ray, G. C., Laine, L., & Caulum, D. (2011). Career aspirations of youth: Untangling race/ethnicity, SES, and gender. *Journal of Vocational Behavior*, *79*(1), 98–109. https://doi.org/10.1016/j.jvb.2010.12.002

Keller, A. C., Stalder, B. E., lgic, I., Semmer, N. K., & Elfering, A. (2016). Who gets the high quality jobs ten years after compulsory school? In K. Scharenberg, S. Hupka-Brunner, T. Meyer, & M. M. Bergman (Eds.), *Transitions in youth and young adulthood: Results from the Swiss TREE panel Study* (Vol. 2, pp. 231–251). Seismo.

Khampirat, B. (2020). The relationship between paternal education, self-esteem, resilience, future orientation, and career aspirations. *PLoS One*, *15*(12), Article e0243283. https://doi.org/10.1371/journal.pone.0243283

Knappert, L., van Dijk, H., & Ross, V. (2019). Refugees' inclusion at work: A qualitative cross-level analysis. *Career Development International*, *25*(1), 32–48. https://doi.org/10.1108/cdi-01-2018-0021

Kuckartz, U. (2016). *Qualitative Inhaltsanalyse: Methoden, Praxis, Computerunterstützung* [Qualitative content analysis: Methods, practice, and computer-assisted analysis] (3. ed.). Beltz.

Kunin, T. (1955). *Faces scale* [Database record]. APA PsycTests. https://doi.org/10.1037/t05610-000

Lateef, H., Gale, A., Jellesma, F., & Borgstrom, E. (2023). "The belief to aspire": The association between afrocentric values in the educational and career aspirations of young black males. *The Urban Review*, *56*(1), 19–34. https://doi.org/10.1007/s11256-023-00680-7

Lee, E. S., Szkudlarek, B., Nguyen, D. C., & Nardon, L. (2020). Unveiling the canvas ceiling: A multidisciplinary literature review of refugee employment and workforce integration. *International Journal of Management Reviews*, *22*(2), 193–216. https://doi.org/10.1111/ijmr.12222

Lehtonen, E. E., Nokelainen, P., Rintala, H., & Puhakka, I. (2022). Thriving or surviving at work: How workplace learning opportunities and subjective career success are connected with job satisfaction and turnover intention? *Journal of Workplace Learning*, *34*(1), 88–109. https://doi.org/10.1108/jwl-12-2020-0184

Lent, R. W., & Brown, S. D. (2019). Social cognitive career theory at 25: Empirical status of the interest, choice, and performance models. *Journal of Vocational Behavior*, *115*, Article 103316. https://doi.org/10.1016/j.jvb.2019.06.004

Lent, R. W., Sheu, H. B., Miller, M. J., Cusick, M. E., Penn, L. T., & Truong, N. N. (2018). Predictors of science, technology, engineering, and mathematics choice options: A meta-analytic path analysis of the social-cognitive choice model by gender and race/ethnicity. *Journal of Counseling Psychology*, *65*(1), 17–35. https://doi.org/10.1037/cou0000243

Mangan, D., & Winter, L. A. (2017). (In)validation and (mis)recognition in higher education: The experiences of students from refugee backgrounds. *International Journal of Lifelong Education*, *36*(4), 486–502. https://doi.org/10.1080/02601370.2017.1287131

Masdonati, J., Massoudi, K., Blustein, D. L., & Duffy, R. D. (2021). Moving toward decent work: Application of the psychology of working theory to the school-to-work transition. *Journal of Career Development*, *49*(1), 41–59. https://doi.org/10.1177/0894845321991681

Maué, E., Diehl, C., & Schumann, S. (2021). Young refugees in prevocational preparation classes: Who is moving on to the next step? *Journal for Educational Research Online*, (1), 105–127. https://doi.org/10.31244/jero.2021.01.04

Meyer, T. (2009). Can "vocationalisation" of education go too far? The case of Switzerland. *European Journal of Vocational Training*, *46*(1), 28–39.

Morrice, L. (2021). The promise of refugee lifelong education: A critical review of the field. *International Review of Education*, *67*(6), 851–869. https://doi.org/10.1007/s11159-021-09927-5

Muthén, L. K., & Muthén, B. O. (1998–2017). *Mplus user's guide* (8th ed.). Muthén & Muthén.

Napolitano, C. M., Hoff, K. A., Ming, C. W. J., Tu, N., & Rounds, J. (2020). Great expectations: Adolescents' intentional self-regulation predicts career aspiration and expectation consistency. *Journal of Vocational Behavior*, *120,* Article 103423. https://doi.org/10.1016/j.jvb.2020.103423

Newman, A., Bimrose, J., Nielsen, I., & Zacher, H. (2018). Vocational behavior of refugees: How do refugees seek employment, overcome work-related challenges, and navigate their careers? *Journal of Vocational Behavior*, *105*, 1–5. https://doi.org/10.1016/j.jvb.2018.01.007

Newman, A., Nielsen, I., Smyth, R., Hirst, G., & Kennedy, S. (2018). The effects of diversity climate on the work attitudes of refugee employees: The mediating role of psychological capital and moderating role of ethnic identity. *Journal of Vocational Behavior*, *105*, 147–158. https://doi.org/10.1016/j.jvb.2017.09.005

Niessen, D., Wicht, A., & Lechner, C. M. (2023). Aspiration-attainment gaps predict adolescents' subjective well-being after transition to vocational education and training in Germany. *PLoS One*, *18*(6), Article e0287064. https://doi.org/10.1371/journal.pone.0287064

Nunn, C., McMichael, C., Gifford, S. M., & Correa-Velez, I. (2014). 'I came to this country for a better life': Factors mediating employment trajectories among young people who migrated to Australia as refugees during adolescence. *Journal of Youth Studies*, *17*(9), 1205–1220. https://doi.org/10.1080/13676261.2014.901496

Nylund-Gibson, K., Garber, A. C., Singh, J., Witkow, M. R., Nishina, A., & Bellmore, A. (2022). The utility of latent class analysis to understand heterogeneity in youth's coping strategies: A methodological introduction. *Behavioral Disorders*, *48*(2), 106–120. https://doi.org/10.1177/0198742921106721

Nylund, K. L., Asparouhov, T., & Muthén, B. O. (2007). Deciding on the number of classes in latent class analysis and growth mixture modeling: A monte carlo simulation study. *Structural Equation Modeling: A Multidisciplinary Journal*, *14*(1), 535–569. https://doi.org/10.1080/10705510701575396

Olsson, F., Bradley, L., & Abughalioun, M. (2023). Refugees' aspirations, attitudes, and experiences of higher education and professional life in Sweden. *Social Sciences & Humanities Open*, *7*(1), Article 100386. https://doi.org/10.1016/j.ssaho.2022.100386

Otmani, I. (2023). Towards a 'low ambition equilibrium': Managing refugee aspirations during the integration process in Switzerland. *Journal of Ethnic and Migration Studies*, *50*(4), 854–872. https://doi.org/10.1080/1369183x.2023.2235902

Pajic, S., Ulceluse, M., Kismihok, G., Mol, S. T., & den Hartog, D. N. (2018). Antecedents of job search self-efficacy of Syrian refugees in Greece and the Netherlands. *Journal of Vocational Behavior*, *105*, 159–172. https://doi.org/10.1016/j.jvb.2017.11.001

Pilz, M. (2021). Qualität in der europäischen Berufsbildung: Ein Beispiel zur Analyse von Projekten für Flüchtlinge [Quality in European vocational education and training: An example of analysing projects for refugees]. In S. Dernbach-Stolz, P. Eigenmann, C. Kamm, & S. Kessler (Eds.), *Transformationen von Arbeit, Beruf und Bildung in internationaler Betrachtung* [Transformations of work, occupation and education in an international perspective] (pp. 239–255). Springer VS.

Rojewski, J. W. (2005). Occupational aspirations: Constructs, meanings, and application. In S. D. Brown & R. W. Lent (Eds.), *Career development and counseling: Putting theory and research to work* (pp. 131–154). John Wiley & Sons.

Scharnhorst, U., & Kammermann, M. (2020). Who is included in VET, who not? *Education + Training*, *62*(6), 645–658. https://doi.org/10.1108/ET-11-2019-0248

Schneider, L. (2018). Access and aspirations: Syrian refugees' experiences of entering higher education in Germany. *Research in Comparative and International Education*, *13*(3), 457–478. https://doi.org/10.1177/1745499918784764

Spanner, F., & Maue, E. (2022). Thrown in at the deep end? Perceptions of burdens, gains, and contributions to the integration of refugee students among teachers with(out) target group-specific professional knowledge. *Frontiers in Sociology*, *7*, Article 840176. https://doi.org/10.3389/fsoc.2022.840176

Staatssekretariat für Migration. (2018). *Die Integrationsagenda kurz erklärt* [The integration agenda in brief].

https://www.sem.admin.ch/dam/data/sem/integration/agenda/faktenblatt-integrationsagenda-d.pdf

Stalder, B. E., Kammermann, M., Michel, I., & Schönbächler, M.-T. (2024). Successful integration of refugees in vocational education and training: Experiences from a new pre-vocational programme. In M. Teräs, E. Eliasson, & A. Osman (Eds.), *Migration, education and employment: Pathways to successful integration* (pp. 133–154). Springer Nature. https://doi.org/10.1007/978-3-031-41919-5

Stalder, B. E., & Lüthi, F. (2016, November). Contrat d'apprentissage résilié : Certificat en danger? [Apprenticeship contract terminated early: Is the certificate at risk?]. *Newsletter SRFP*, 1–17. http://www.sgab-srfp.ch/fr/newsletter/contrat-dapprentissage-resilie-certificat-en-danger

Stalder, B. E., & Lüthi, F. (2022). Enhancing the standing of VET in Switzerland. In S. Billett, B. E. Stalder, V. Aarkrog, S. Choy, S. Hodge, & A. H. Le (Eds.), *The standing of vocational education and the occupations it serves: Current concerns and strategies for enhancing that standing* (pp. 247–264). Springer. https://doi.org/10.1007/978-3-030-96237-1_12

Stalder, B. E., & Schönbächler, M.-T. (2025). *Nationale Evaluation INVOL: Schlussbericht im Auftrag des Staatssekretariats für Migration* [National evaluation of the PAI: Commissioned by the State Secretariat for Migration]. PHBern. https://doi.org/10.5281/zenodo.17292988

Thomas, S., Albrecht, P., Korntheuer, A., & Bucher, J. (2024). Researching educational barriers in participatory real-world labs: Vocational training of refugees in rural counties in Germany. *Frontiers in Education*, *9*, Article 1250886. https://doi.org/10.3389/feduc.2024.1250886

Tlhabano, K. N., & Schweitzer, R. (2007). A qualitative study of the career aspirations of resettled young Sudanese and Somali refugees. *Journal of Psychology in Africa*, *17*(1–2), 13–22.

Udayar, S., Fedrigo, L., Durante, F., Clot-Siegrist, E., & Masdonati, J. (2021). Labour market integration of young refugees and asylum seekers: A look at perceived barriers and resources. *British Journal of Guidance & Counselling*, *49*(2), 287–303. https://doi.org/10.1080/03069885.2020.1858023

Wehrle, K., Kira, M., & Klehe, U.-C. (2019). Putting career construction into context: Career adaptability among refugees. *Journal of Vocational Behavior*, *111*, 107–124. https://doi.org/10.1016/j.jvb.2018.08.007

Weller, B. E., Bowen, N. K., & Faubert, S. J. (2020). Latent class analysis: A guide to best practice. *Journal of Black Psychology*, *46*(4), 287–311. https://doi.org/10.1177/0095798420930932

Wolter, S. C., & Zumbuehl, M. (2018). *The native-migrant gap in the progression into and through upper-secondary education* (CESifo Working Paper No. 6810). https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3126037

Zacher, H. (2019). Career development of refugees. In J. A. Athanasou, & H. N. Perera (Eds.), *International handbook of career guidance* (pp. 359–384). Springer. https://doi.org/10.1007/978-3-030-25153-6