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The unmet potential of higher education graduates as boundary crossers to vocational education and training

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Abstract

This article delves into a unique form of potential academic drift in Estonian vocational education and training (VET) institutions, where many VET entrants already hold higher education degrees. While there is extensive research on transitions from vocational education to higher education, the reverse transition from higher education to VET needs to be explored. The study aimed to identify the life transitions that bring higher education graduates to VET, the boundaries they experience during their transition and how they manage these in terms of boundary crossing. Findings from 12 semi-structured in-depth interviews with VET students holding university diplomas revealed that these students enter VET driven by career-related life-transitions. However, their transformative potential as boundary crossers still needs to be met, as there was evidence of a predominant trend of unilateral adaptation to the norms and practices of the vocational context, sidelining the potential for negotiation and hybridisation of practices.

Keywords: reverse educational transition, vocational education, boundary crossing, life transition, experienced learner

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Introduction

There is an increasing emphasis on flexible educational pathways (Council of the European Union, 2016; Harris & Ramos, 2012), where learners from different educational sectors and levels can combine choices according to their needs and abilities. The linear learning pathways and transitions, such as the transition from vocational education (VET) to higher education (HE), have been extensively researched (e.g., Biemans et al., 2016; Catterall et al., 2014; Frawley et al., 2017; Haltia et al., 2022; Vanderburg et al., 2023). However, not all learning pathways are linear, especially when people need to develop new skills throughout their lives (Curtis, 2009). Learning trajectories can be contradictory and volatile and go into reverse (Crossan et al., 2003).

Estonian VET faces a unique challenge: a fifth of the individuals entering VET have already acquired higher education degrees (Estonian Educational Database, n.d.). In the context of the trend for overlearning (Zhu & Chen, 2016), and overskilling, especially among people with higher degrees (Mavromaras & McGuinness, 2012), this situation raises many concerns for policymakers and VET institutions about the potential impact on curriculum design, learning and teaching cultures, and whether graduates of higher education will repel those expected to enter VET. Furthermore, the influx of academically trained individuals into VET might accelerate the process of academisation within vocational institutions.

The educational paths people take can be viewed through two different lenses: the status maintenance approach and the cumulative dis/advantage approach. The former highlights the stability in an individual's achieved status over their life course and assumes that people work to maintain their status in the face of changing labour market conditions. On the other hand, the latter emphasises how initial advantages or disadvantages can accumulate over time and lead to divergent trajectories, ultimately resulting in greater inequality in opportunity and outcomes (Pallas, 2003). While reducing inequalities is one of the reasons for the recent focus on creating pathways from VET to HE (e.g., Martin & Furiv, 2022), the road from HE to VET is 'less travelled', and far less is known about it (Harris & Ramos, 2012). There has been far less consideration and research on learner's motives and experiences of these reverse transitions. Taking up VET can be a proactive step to maintain one's skillsets, ensuring they remain relevant and competitive in the job market. However, this move can further enhance their already advantageous position by diversifying their skills and competencies. Therefore, this paper aims to address the existing gap in the understanding of reverse educational paths by examining the experiences of Estonian higher education graduates in VET.

Given that adults frequently return to formal education during life transitions (Merriam, 2005; Varmecky, 2012), and considering the significant differences in

educational philosophies and practices between academic and vocational education (Sych, 2016), we will delve into the concepts of life transitions and boundary crossing in the upcoming section.

Life transitions and boundary-crossing in the context of reversed learning-pathways

In the mid-20th century, the traditional 'tripartite' life course model was widely accepted. This model was characterised by predictability and distinct stages of education, work, and retirement (Walther et al., 2022). Life course transitions were largely uniform, experienced collectively by vast numbers of people within similar age brackets and in a predictable sequence (Field, 2010). However, this model has disintegrated, resulting in increased individuality (Field, 2010), unpredictability, insecurity, and challenges (Walther et al., 2022). The life courses of individuals are now marked by a greater diversity and array of pathways (Walther et al., 2022), becoming increasingly non-linear (Field, 2010). Furthermore, according to Field (2013), lifelong learning policies have contributed to the destandardisation and restructuring of the adult life course by encouraging more flexible and intensified transitions.

Learning often occurs in adults' life-transitions, which represent phases of change in our lives that appear to alternate with periods of stability (Merriam, 2005). Several adults re-enter formal learning environments, driven by the transitional phases in their lives marked by the necessity to address real-life challenges (Varmecky, 2012). Transitions usually occur when the structure of a person's life no longer aligns with their goals and aspirations. Transitions can be anticipated and planned for (e.g., career change), happening in a socially prescribed timetable or off-time, they can occur gradually, unexpectedly (e.g., job loss) or be expected but not occurring (Merriam, 2005).

People in modern societies can be seen as 'constantly learning beings' who inevitably shape transitions for themselves and others while also experiencing them (Tønseth, 2018). Transitions are recognised as instances in individuals' lives that generate or perpetuate social disparities and the potential for social exclusion (Walther et al., 2022). Each transition brings a person change in relationships, roles, routines, and expectations (Merriam, 2005). Successfully navigating these transitions is an important measure of an individual's personal and professional development. The ability to adapt to changing circumstances in their personal, workplace, or societal life is an essential aspect of this development (Billett et al., 2021).

Transitions are inherently dynamic and complex, not rigid, or linear. Often, external factors that individuals typically have limited control over influence life changes (Field & Lynch, 2015). Educational transitions are essential for

facilitating change and development, and therefore, institutions dedicated to supporting the learning and development of individuals should carefully consider how they enable or hinder transition processes within, into, and out of their frameworks (Zittoun, 2008). Researchers have focused mainly on the transitions of young people, especially into adulthood and the labour market (Field, 2012), however, research on adult life transitions is still rare (Field, 2013).

As previously mentioned, the trajectories of individuals' lives are increasingly complex and non-linear. This diversity is similarly evident in the various educational routes people pursue. As the pathway from HE to VET is less known, it may seem counter-intuitive to move backwards on your educational journey due to societal pressures and status differences (Harris & Ramos, 2012). There is some research indicating that individuals who have completed a university degree may choose to pursue vocational education and training due to dissatisfaction with the theoretical nature of university education (Golding & Vallence, 1999), or because they intend to change their career path and require new skills and qualifications (Golding & Vallence, 1999; Harris & Ramos, 2012; Yang, 2006). However, adults may engage in self-improvement in VET for personal interest, which is often referred to as hobby learning (Harris & Ramos, 2012).

As the educational philosophy and practices of higher and vocational education differ, moving from HE to VET can be interpreted as boundary-crossing (Harris & Ramos, 2012). A boundary is considered as a socio-cultural distinction that causes a disruption in action or interaction; however, it simultaneously implies sameness and continuity by indicating that within this disruption, two or more sites maintain a relevant connection to each other (Akkerman & Bakker, 2011). As Wenger (2000) states, boundaries play two important roles in learning systems: connecting communities and offering diverse learning opportunities, which allow individuals to be exposed to different competencies and experiences. Boundaries can either lead to separation, fragmentation, disconnection, and misunderstandings or they can provide new insights and perspectives. People at boundaries get an opportunity to broaden their views. Although it can be unsettling and humbling, it is also exciting and attractive to encounter the unknown and the mystery of 'otherness.' According to Wenger (2000), such encounters provide a chance to explore the limits of one's competence, learn something completely new, re-examine one's assumptions, and possibly expand one's horizons.

The term 'boundary crossing' refers to the continuous and mutually influential actions and interactions that take place between different contexts, which affect both individual and social practices (Akkerman & Bakker, 2011). Boundary crossing is understood as a dynamic learning process marked by the negotiation of meanings, diminishing the ambiguity surrounding boundaries, thereby

enhancing the quality and depth of interactions among individuals across diverse settings (Bakker & Akkerman, 2019).

According to Akkerman and Bakker (2011), there are four primary mechanisms through which the process of boundary crossing triggers learning: identification, coordination, reflection, and transformation. Identification involves understanding various practices by recognising their unique characteristics. This process can occur by comparing one practice against another (also referred to as 'otherness') or by analysing how different practices interact and possibly conflict with each other, enabling a deeper exploration and coexistence of these practices (legitimate coexistence). Coordination involves mastering the art of simultaneously engaging diverse practices effectively. This entails enhancing communication among varying perspectives, investing in translating different practices to make them understandable to everyone involved, developing, or using objects or procedures to create or maintain effective collaboration across different practices. Reflection involves the process of recognising and articulating the disparities between various practices. This can lead to a shared understanding and the merging of different types of knowledge. Boundary crossing will result in transformation – existing practices change and new ones emerge. Transformation begins by addressing shortcomings in current methods, leading to the development of innovative solutions that transcend traditional limits. The process peaks when these new approaches are integrated into existing practices, enhancing their distinctiveness and mutual value (Akkerman & Bakker, 2011; Bakker & Akkerman, 2019).

Despite efforts to bridge different contexts, research indicates that continuity is not guaranteed. People may encounter differences in their participations and perspectives, leading to discontinuities. What is learned or experienced in one context may not translate to, or may even conflict with, experiences in another context. Boundary crossing needs support, and there are several ways to do that, including brokering and boundary interactions (Bronkhorst & Akkerman, 2016). Brokers are individuals who act as intermediaries between different communities. They can facilitate the introduction of elements from one practice into another (Wenger, 2000). For example, in vocational education, a teacher can act as a broker between the world of work and school (Akkerman & Bakker, 2012). Boundary interactions can take the form of visits and discussions (Wenger, 2010). In addition, Bronkhorst and Akkerman (2016) emphasise the importance of degrees of freedom, like programme flexibility, as a foundational condition for supporting boundary crossing, suggesting that validating prior learning is one way to expand this freedom.

Moving from HE to VET can be seen as boundary-crossing on different levels: experienced differences in organisational design, and procedures at the structural level; experienced differences in learners and teaching stuff at the

social level (Koeglreiter et al., 2006). The rare research on these reverse learning pathways indicates, that those with a higher education perceive the transition from HE to VET as relatively easy. However, compared to HE, VET is perceived as being different in terms of assessment, course structure, teaching methods and styles, as well as the general learning environment (Harris & Ramos, 2012). As indicated above, there are mutual impacts when crossing boundaries. In this line, there is some evidence, that VET students with higher education degrees can positively impact other vocational students and institutions. For example, Yang (2006) stated, that VET institutions that take up students with higher education degrees are more likely to increase enrolment, improve the quality of teaching and learning, and diversify the student population by increasing the proportion of successful students among the student population. There is also evidence that students who have completed higher education and returned to VET enhance classroom interaction, assist fellow students academically and socially, and help lecturers improve teaching (Townsend & Lambert, 1999). In addition, they can stimulate vocational schools to develop more innovative solutions (Yang, 2006).

With the prevalent focus on the transition from VET to HE, there is a notable gap in understanding the reverse educational pathway, where individuals with higher education degrees opt for vocational education. Trends like overlearning (Zhu & Chen, 2016), and overskilling (Mavromaras & McGuinness, 2012), and possibility of cumulating advantages (Pallas, 2003) underline the importance of understanding the phenomena on a deeper level. Therefore, this study aimed to identify the life transitions that bring higher education graduates to VET, the boundaries they experience during their transition, and how they manage these in terms of boundary crossing. More precisely, the article seeks answers to the following research questions: 1) which life transitions lead individuals with higher education into VET, and 2) how do VET students with university degrees experience their boundary crossing from HE to VET?

Context of the study: Estonian VET

Before discussing the research methodology, we briefly outline the current state of vocational education in Estonia.

After completing compulsory basic education (grades 1–9), young people in Estonia have the option to pursue further studies in general or vocational upper-secondary education. Estonia is characterised by culturally ingrained beliefs and perceptions that view vocational education as inferior to general education (Loogma et al., 2019). Despite government efforts to highlight the value of vocational education as a competitive alternative to general upper-secondary education, only one-third of young people are certain about their future careers after basic school, and just a quarter of basic school graduates enrol in VET

programmes (Cedefop, 2017). Furthermore, only 12% of 8th-grade students consider vocational education, and just 14% of parents recommend their children to pursue studies in vocational school (Accaro Solutions, 2018). Boys, individuals from lower socio-economic backgrounds, and students with special educational needs show a higher inclination towards pursuing VET (Räis et al., 2016). It has been observed that almost 40% of VET learners are adult learners (over 25 years old) (Estonian Educational Database, n.d.), although VET appears to be less popular among adults with lower educational attainment (Räis et al., 2014). One-fifth of the individuals enrolling in VET already hold higher education degrees (Estonian Educational Database, n.d.). The dropout rate is notable, with nearly one-fifth of VET students leaving in their first year of study. Moreover, only slightly over half (53%) of VET students manage to complete their studies within the anticipated timeframe (Ministry of Education and Research, 2017).

The Standard of Vocational Education (2013) lays out consistent requirements for formal VET, including guidelines for creating and updating curricula, recognising prior learning and professional experience, and classifying curricula. In the 2013–15 VET reform, a more hands-on approach to studies was introduced, and efforts were made to align the curriculum system with the needs of the labour market. VET curricula became outcome-based and were connected to the levels of the Estonian Qualifications Framework, which is referenced to the European Qualifications Framework. VET programmes are available at EQF levels 2–5. The current VET reform (see European Commission, 2025) will raise the age of compulsory schooling to 18, beginning in the 2025/2026 academic year. It will also reintroduce four-year vocational upper secondary education curricula, increasing the focus on general education within VET. This aims to strengthen basic skills and improve access to further studies.

Vocational education and training are offered by 37 different institutions, catering to over 26,000 students (Statistics Estonia, n.d.). The majority of VET institutions are state-owned, and education has been free for learners of all ages, including adults (Ministry of Education and Research, 2022). However, starting September 1, 2025, vocational education in Estonia will introduce tuition fees for individuals who completed higher education within the past then years or graduated from vocational school within the last five years (Eurydice, 2025).

The demand for vocational education is influenced by several factors. According to Estonian Labor Market Review (Eesti Pank, 2024) there is a mismatch between skills and the demands – 39% of the people in employment in Estonia are working in an occupation that does not match the highest level of education that they have achieved. Graduates may find that their academic training does not align with current job market needs, especially in times of economic instability. In contrast, vocational education programmes are often more directly aligned with specific job markets, providing targeted training that

meets the immediate needs of employers. The demand for vocational education is also influenced by the fact that the employment rate of graduates is very high. In example, the percentage of unemployed among VET graduates was only 7% in 2022 (Murasov, 2024).

Methods

Participants

To meet the aim of the study, and to provide relevant, and diverse data pertinent to the research questions, we utilised the purposeful sampling method. As suggested by Etikan et al. (2016), subjects were selected based on the specific objectives of the study, with the anticipation that each participant would contribute distinctive and valuable information pertinent to the research. The selection criteria for the study stipulated that participants must be currently or recently enrolled in a vocational education programme and possess a prior degree from a higher education institution.

Students were invited to take part in the study through our contacts in vocational schools. Additionally, further respondents were suggested by interviewees. The final sample comprised 12 VET students who already have a university diploma (see Table 1).

Table 1. Characteristics of interview participants.

Pseudonym	Age	HE specialty	VET specialty
Oskar	28	Cultural theory and semiotics	Water operator
Sofia	31	Food technology	Business management
Eva	32	Political science	Business management
Sebastian	37	Vocational education teacher	Chef
Mia	35	Nature conservation	Water operator
Marta	29	Vocational education teacher	Cleaning services management
Amelia	38	Service management	Bakery
Elli	28	Photography	Designer-artist
Mark	55	Finance	Potter
Hugo	61	Mechanisation of agriculture	Horticulture
Maria	44	Food technology	Chef
Saskia	32	Pedagogy of religion	IT specialist

As is apparent from Table 1, the specialties varied in terms of students' previous academic education background, with only two of the respondents having a link between their higher education specialisation and their vocational training (e.g., the respondent had studied food technology at higher education and went to vocational school to become a chef), while in other cases there was no such link. The interviewees ranged in age from 28 to 61, eight of them were women, four of them men.

Data collection

For data collection, we chose the in-depth semi-structured interview approach as it is an effective qualitative method for getting participants to talk about their personal opinions, experiences and share how they interpret the topic (Milena et al., 2008). The interview guide was drawn up based on the purpose of the study and the knowledge from previous literature about the experiences of higher education graduates in VET. The open interview questions addressed learner's motives for taking up studying at VET school (e.g., Please explain in more detail how you came to the decision to enrol in VET), as well as the expectations, and experiences of their learning journey (e.g., Please describe your learning experience in VET). They were also asked to reflect on the VET studies in the light of their previous study-experiences at HE.

The data were collected during 2020–2023. Half of the interviews were conducted face-to-face, the rest via Zoom due to COVID restrictions at the time. In all cases, the purpose of the study and the use of the results were explained to the participants, as well as the principles of confidentiality. Informed consent was obtained from all participants to take part in the study. All interviews were recorded, the length of the interviews varied between 30 and 70 minutes.

Data analysis

For data analysis, we implemented inductive thematic analysis, which, according to Clarke and Braun (2017), provides accessible and systematic procedures for generating codes and themes from qualitative data. Thematic analysis makes it possible to reveal insights and nuances within the data, offering a comprehensive understanding of participants' experiences and viewpoints (Nowell et al., 2017). In our research, we adopted the thematic analysis approach as described by Braun and Clarke in 2006. Our first step involved transcribing all the interviews we conducted and then thoroughly reading through these transcripts multiple times. This deep dive into the data allowed us to note down initial thoughts that were relevant to our study's goals.

Next, we moved on to what is known as open coding. During this stage, we looked for parts of the text that answered our research questions in some way. Both authors worked on this coding independently for each interview to ensure

thoroughness. After coding, we came together to discuss the initial codes. This step was crucial because it helped us agree on the most important parts of the data and how they related to our research questions. This way we aimed interpretive rigour by researcher triangulation (Kitto et al., 2008). By talking through the individual interpretations, we were able to create broader themes based on similar codes. This part of the process required back-and-forth discussions but was essential for refining the themes and making sure they accurately represented the data. Throughout the data analysis process, we utilised QCAmap, a qualitative analysis software that simplified the technical aspects of coding, inter-coding, and theme creation. The data analysis culminated in creating a final thematic overview and the following detailed overview of our findings.

Findings

In the following section, we provide an overview of the research findings, emphasising the central themes (italicised) that we identified during the data analysis process.

Life transitions leading to VET

Regarding our first research question on which life transitions lead individuals with higher education into VET, the findings reveal that students with higher education degrees are attracted to VET due to life changes such as planned or occurring career changes, or a sense of the need for change. We will now examine these in greater depth.

An occurred career change. The interview data indicate that individuals who enrolled in VET may have previously changed careers. Some had been working in their new profession for a shorter period, like six months, while others had more experience. They expressed the need to acquire theoretical knowledge and practical experience in their field and wanted to become competent professionals in their area of work. Hugo (61) said:

> My spouse is a biologist, and then we decided to set up a plant nursery together. At the beginning, it was more about growing and selling flower bulbs, but later other plants came along. So, I felt that to be a real player in this field, I needed to learn more about gardening, and so I started…

Broadening their professional network was also important to the interviewees. While some individuals felt the need to study on their own initiative, others were encouraged by their employers. They were motivated by a lack of professional knowledge and skills and a need for confirmation of what they had learned at their workplace. Those who had been working in their new field for a longer time

before entering VET wanted to gain new ideas, theoretical knowledge, and general skills to cope with their profession.

The complementarity between work and studies was considered important, as there was a need for a quick way of acquiring professional skills. Obtaining a qualification was also vital for those working in certain fields.

A planned career change was another theme in the interviews. Some individuals expressed their desire for a career change due to dissatisfaction or exhaustion from their current profession. Others shared their interest in returning to a previous profession, such as one interviewee who decided to pursue their passion for the food service industry by studying to become a chef in vocational school. For some interviewees, the idea of a career change became more concrete during their vocational training, as they realised the potential for improved career choices and opportunities through the acquisition of a practical profession.

A desire for change. A further theme that emerged from the interviews was the desire for change and diversity. For example, it was pointed out by some of the interviewees that the field studied at university was not satisfying or that there was dissatisfaction with the existing job, which was felt to have been worn out over the years. However, there were also some who were satisfied with their current job but said they were looking for a change, something new in their lives. An example was Sofia (32) with a master's degree in food technology:

> I had no immediate need to learn something new. I had a qualified job, and I was happy with it. But as usual, the working days were very long, there was no reason to leave work at the right time and to have a change, I started to look for different possibilities, different vocational schools, courses and so on.

The search for change of scenery as well as hobby-based interests also came up in the interviews. Some interviewees admitted that the studied vocation would not necessarily lead to employment after completing the studies. They saw the opportunity to add a practical vocational hobby as an alternative to the existing, and sometimes not so practical working life. There were interviewees who had studied several subjects at vocational school and one interviewee described themself as a serial-learner.

Boundary crossing experiences

Regarding the second research question, with focus on how VET students with university degrees experience their boundary crossing from HE to VET, our findings indicate that individuals with a higher education background who were enrolled in VET experienced boundaries at both the social (students and teachers) and structural (curriculum and the organisation of studies) levels. In addition, themes of the ease of transition and learning, and transformation of professional practices for career changers were evident in the data.

Social level boundaries

The findings suggest that a notable dimension of the boundaries encountered at the social level were associated with *student related differences*. The interviewees mentioned that they experienced a significant difference in the diversity of co-learners during their vocational learning compared to their university studies. They studied with professionals already working in the field, as well as with young people who had just left secondary school. The motivation levels of fellow students also varied in their experience, with adult fellow students being perceived as significantly more motivated compared to young students. Some interviewees experienced the group as being less academically capable than university students, with younger fellow students being more likely to drop out due to less consideration of their choice of profession.

Despite the diversity, the heterogeneity of the students created a platform for mutual learning, exchange of experiences, and discussions. Studying pottery, Mark (55) stated:

> It suited me, of course, that the learners' levels and previous experiences were quite different, so there was a lot to learn from each other, and the amount of peer learning turned out to be very high.

Some interviewees experienced a strong group spirit because of the small groups, despite the diversity of learners. This was seen as a contrast to the university experience: at university, individuals often felt like minor components within a vast machinery, surrounded by numerous students during lectures, creating a sense of anonymity and detachment.

The vocational learning environment was perceived as safe and non-competitive compared to university studies. The interviewees developed friendships with their peers and stayed in touch with them even after the end of their studies.

Another social level boundary was percieved in the form of the *teacher related differences*. Higher and degree-educated learners had different perceptions of teachers' attitudes and teaching practices. The interviews revealed that the professionalism of vocational education and training teachers varied greatly, and the students' learning experience depended largely on the teacher's professionalism. Some teachers lacked extensive knowledge of their subject, or their teaching practices were outdated, as reported by Mark (55) who said 'I can't say there were too many star teachers'.

It was noted that outdated knowledge was sometimes taught using materials from decades ago, and some teachers had more practical experience than explanatory skills. In some cases, vocational teachers did not take the time to identify the specific needs of their students, as noted by Saskia (32), the former religion pedagogue:

> Teachers did not seem to pay much attention to who was learning; they came in, delivered their lesson or practicum, and left. It seemed like many of the teachers probably did not work there full-time, and their main workload was somewhere else, so they didn't make much effort to find out who these students were and why they were there.

On the other hand, some interviewees appreciated the professionalism of vocational teachers and the fact that they worked in the field simultaneously. Their practical experience and ability to give examples from everyday life and to consider the needs of different learners were appreciated. Hugo (61), the plant nursery owner said:

> The teachers were the absolute best in their field, always with their heart and soul in the matter, and knew how to teach. They made space for you and made very different learners develop together.

Structural level boundaries

On the structural level, boundaries related to *curricular and organisational differences* were experienced. In terms of curricula, interviewees experienced some confusion, especially in the case of newly opened curricula. One interviewee, Oskar (28), felt that university degree courses had several advantages such as seamless coursework, efficient communication channels, consistent classrooms, centralised materials, and easy online tracking of progress and completion. In contrast, they found the organisational side of vocational training to be lacking.

Other interviewees felt that curriculum delivery could have been more flexible, as some were required to repeat certain subjects and were not credited for their prior learning experiences.

The interviewees pointed out that vocational training is more practical and focused on vocational skills compared to academic studies. They appreciated the fact that theory and practice go hand in hand in vocational training. They expressed their preference for practical learning compared to reading textbooks in university. Acknowledging the value of practical learning they did not rule out the possibility of attending a vocational school again in the future.

The organisation of the training, communication between the school and the training company, and joint discussions were also appreciated by the interviewees. They considered all the subjects reasonable, and even theoretical knowledge was immediately put into practice in everyday work.

Navigating boundary crossing

The interviewees expressed the *ease of transition and learning*. People with higher education found it easier to get into vocational training, but for fields like IT, there was still competition for admission. The interviewees believed that studies at vocational schools were relatively easy, and that more effort was needed in

universities. They also noted that vocational schools had a more lenient attitude towards students, which might be due to a desire to reduce the number of dropouts. Sofia (31), described her observations as follows:

> The attitude of the vocational school had a slight undertone: you cannot throw someone out because otherwise, you have a terrible dropout rate; everyone who wanted to was 'pulled' through.

In contrast, universities aimed to get the best possible results, and the underachievers were eliminated relatively quickly.

The interviewees remarked that in vocational education and training, students were expected to have a much lower level of independence. For example, Saskia (32), the IT specialist with a master's degree in religion pedagogy, stated that the major difference between these two levels of education was whether you lead yourself as expected at university or expect someone else to lead and take the initiative as in vocational school. While at university, you have a lot of independence and responsibility, in vocational school, the focus is on acquiring a specific trade skill, and no independent thinking is expected. Saskia continued that they found it suitable as they had gone to vocational education to learn a particular skill.

During the interviews, some respondents mentioned that the learning content in VET seemed trivial at times. However, they also admitted that starting from the basics was necessary for younger students to develop study skills. While there was a comparison made between the learning experiences in higher education and VET, it was not considered a major problem.

They noticed that there were fewer independent assignments and homework in VET, and the assignments were academically not challenging. For instance, when it came to written assignments, the experience differed between higher education and VET. In higher education, it was necessary to cite, and rephrase ideas, whereas in VET, participants were doing more copy-pasting without any references. Some interviewees found this transition a bit challenging, as they had to adjust to the new writing practices. They felt that if they had presented their university-level work in VET, it would have been difficult for others to understand and interpret. Marta (29), holding a bachelor's degree as vocational teacher, stated:

> Presenting the kind of work I did at university would have been difficult to read for them and I think they would have thought I had gone mad.

The assessment was also perceived as more effortless in vocational school. In the interviewees' experiences, there were no exams or tests at the end of the subjects; there was only one at the end of the studies. Furthermore, they had to work hard

at university for good grades, while the vocational school had a non-differentiating assessment.

Moreover, the interviewees found that VET was less strict about deadlines and content requirements. Therefore, transitioning from one level of education to another was academically easy and did not require much effort. However, they did not bring with them practices of higher education, such as academic writing.

The last theme identified in the data was related to the *transforming professional practices*. There were experiences where practices from one field influenced the other. Some interviewees who recently changed careers mentioned that they actively influenced the learning content to suit their professional interests and needs. Hugo (61) explained his experience as follows:

> I also influenced the learning content through my questions because many topics came up because I or someone else raised them. So, our group contributed to developing the horticulture curriculum by providing a clear understanding of what we need to know to be a good practitioner in our field.

For instance, some homework tasks were redesigned together to make them more relevant to the students' needs and worth their effort.

During the interviews, it was revealed that vocational education had a significant impact on the working practices of the interviewees. Learners not only acquired practical skills and knowledge that could be directly applied to their job. Furthermore, they started to take apprentices to their companies. By doing so, they contributed to the development of the next generation of skilled workers.

Some interviewees felt that academic and vocational education complemented each other. Academic education provided them with a broader perspective and helped them understand themselves better, while vocational education provided them with a valuable profession in the job market. As a result, they believed that a combination of both types of education was ideal. Saskia (32) even mentioned that a broad academic background education followed by a well-targeted professionalisation is the right approach for her. Her employer also appreciated her skills and expertise, as she was like a two-in-one, as mentioned in the feedback received.

Discussion

The study focused on a distinctive issue in vocational education and training in Estonia: the growing number of students with higher education degrees. This trend could lead to a more academic approach, potentially resulting in changes to curriculum design, learning and teaching cultures, and possibly diminishing the number of students initially expected to enter VET – young people graduating from compulsory or upper-secondary education or low-educated adults. The study drew on the concepts of life transitions as known in the field of adult

education and boundary crossing to gain a deeper insight into this phenomenon, assuming that adults re-engage in formal education during significant life changes (Field, 2013; Merriam, 2005; Varmecky, 2012) and noting the differences between academic and vocational educational practices (Sych, 2016). More precisely, we aimed to understand the life transitions that prompted higher education graduates to enrol in VET, and how they perceived the transition from higher education to vocational education in the framework of boundary crossing.

Our findings suggest that in terms of life transitions, individuals with HE background are drawn to VET during career changes and the reasons therefore appear to be primarily pragmatic. As individuals go through transitional phases in their lives, they often return to formal learning environments to address real-life challenges (Varmecky, 2012) and there is evidence that more adults are enrolling in VET programmes as career changers (Masdonati et al., 2017), requiring new skills and qualifications (Golding & Vallence, 1999; Yang, 2006). Career changes, both those that had taken place and those that were planned, were emphasised during the interviews, highlighting a resulting need to quickly acquire new skills. VET programmes offer a structured pathway to navigate these challenges by providing practical skills and theoretical knowledge that can increase the chances of success in a new career. However, our interviewees were not only seeking to gain specific vocational skills but also to validate their professional experiences, expand their professional networks, and enhance their employability in a new field. In the framework of Merriam's (2005) concept of life transitions, our findings of desired and actual career changes can be interpreted as highly anticipated transitions carried out by adults as active agents in their professional lives.

Nevertheless, according to Harris and Ramos (2012), individuals who hold higher education degrees often pursue vocational education and training for their personal interests and hobbies. Our present research supports this observation, as some of the interviewees identified themselves as 'serial learners' who did not have any plans to apply their studies in the professional world. They started studying at vocational school when there was an inner unrest and dissatisfaction with the status quo, representing a shift in the perception of their current situation and their aspirations for the future. In the light of Merriam's (2005) life transitions concept, the dissatisfaction and sense of unease acted as catalysts, encouraging them to seek new opportunities for fulfilment.

While adults may take up learning undergoing both personal and structural anticipated and unforeseen transitions (Merriam, 2005; Tønseth, 2018), our findings suggest that higher education graduates did not take up studies in vocational education because a life transition had happened; they went to study because they consciously shape their transitions. Therefore, for higher education graduates in VET, it seems to be what Field (2013) stated: learning has become an

active force for change, allowing individuals to anticipate events and actively shape their future.

Secondly, we were interested in which boundaries the VET students with higher education degrees experience and how they undergo the transition from HE to VET in terms of boundary crossing. Boundaries can either create division or provide new opportunities for learning, connecting communities and exposing individuals to diverse experiences and competencies (Wenger, 2000). According to our findings, higher education graduates encountered boundaries at both the social and structural levels within vocational education and training. First, at the social level, differences in co-learners' background, motivation, academic abilities, as well as group dynamics were experienced in deep contrast with university studies and can be intricately linked to the idea of 'otherness.' In boundary crossing, 'otherness' refers to the recognition and encounter of differences that exist between distinct communities or practices with different knowledge and cultural norms (Wenger, 2000). The significant heterogeneity among co-learners in vocational settings, as described by the interviewees, and the blend of professionals already working in their field and young individuals fresh from secondary education, creates a rich tapestry of experiences and knowledge bases. Learning is enhanced through interaction between different domains (Akkerman & Bakker, 2011) and our interviewees emphasised mutual learning and the exchange of experiences among learners with varied levels of knowledge and experience. Nevertheless, the learning that occurred in such cases took place between vocational school and the world of work, not between the practices of vocational and higher education.

Variations in VET teachers' vocational and pedagogical professionalism were experienced as another social level boundary by VET students with higher education degrees. In the context of educational boundary crossing, the crucial role of teachers as mediators between different practices and contexts is emphasised (Akkerman & Bakker, 2012). In the current study, VET teachers who were praised for their practical experience, engagement with the field, and for bringing real-world examples into the classroom, effectively facilitated the crossing of boundaries between the vocational education and professional field. However, the professionals with extensive work experience as well as the teachers who lacked understanding of their subject matter and didn't attempt to comprehend their learners' diversity did not act as mediators between vocational and academic worlds, thus missing an opportunity for boundary-crossing and learning.

At the structural level, curricular and organisational otherness was experienced. The comparison between the seamless organisation of university courses and the less structured but practically oriented nature of vocational training reflects the different aims, norms, and practices in academic and

vocational education. Boundary crossing theory explores learning opportunities that arise when individuals navigate between diverse educational contexts and practices and emphasises the potential for innovation and knowledge exchange (Akkerman & Bakker, 2011). However, since the interviews only touched upon different ways of identification and coexistence, it cannot be concluded that higher education learners crossed boundaries in these aspects.

Successful boundary crossing often involves negotiation and hybridisation of practices from both sides of the boundary (Akkerman & Bakker, 2011). It will result in transformation – existing practices change, and new ones emerge (Bakker & Akkerman, 2019). However, our findings suggest that in the transition from HE to VET, there is less negotiation of practices from different educational fields and more unilateral adjustment to the norms of the vocational context. The fact that our interviewees utilised an adaptation strategy where the originating context (higher education) practices were set aside to conform to the new context without attempting to merge the two sets of practices suggests VET's resistance to academic drift in Estonia.

However, previous research indicates that boundary-crossers can positively impact VET institutions, pushing them to more innovative solutions and improving the quality of teaching and learning (Yang, 2006). For example, applying critical thinking and academic writing skills developed in higher education could enrich the learning experience in VET. This can be particularly meaningful in developing a curriculum that not only meets current industry standards by providing marketable skills but also anticipates future trends and prepares students to be not just workers but thinkers and innovators in their fields and societal contexts (Nylund et al., 2017; van Houten, 2020). Therefore, the failure to negotiate vocational and academic practices can also be seen as the unrealised potential of higher education graduates in vocational schools.

To conclude, our findings indicate that higher education graduates are drawn to VET through career-related life-transitions and that VET programmes offer a structured pathway to navigate these challenges, providing practical skills and theoretical knowledge. Based on the results, they seem to be pragmatically oriented individuals with a clear understanding of the tangible benefits they will gain from vocational education and training. Therefore, our research emphasises the importance of VET programmes in providing the practical skills necessary for successful career transitions and facilitating personal development, lifelong learning, and broadening of professional and social networks. However, we found a predominant trend of unilateral adaptation by individuals with higher education backgrounds to the norms and practices of the vocational context, often sidelining the potential for negotiation and hybridisation of practices. This approach, that was evident in our research, limits the transformative potential that these boundary-crossers could bring to vocational education and training

institutions. Hence, the findings underscore the importance of creating an educational environment in VET that encourages and fosters the negotiation and hybridisation of practices, skills, and knowledge.

Limitations and further research

Given that this study was conducted on a small scale within the Estonian context, it is essential to expand research to include larger sample sizes and explore its applicability across different cultural settings. As the phenomena of reverse educational pathways is evident internationally and research on the topic is scarce, our findings could inspire researchers, teachers, and policymakers to reflect on their experiences. Building on our findings, it would be critical to delve deeper into understanding the barriers that hinder the negotiation and transformation of educational practices. Equally important is identifying the enablers that could facilitate these processes within the framework of reverse educational transitions. This research direction promises to unveil valuable strategies for enhancing educational practices in vocational education and training in the context of lifelong learning.

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References

Accaro Solutions OÜ. (2018). *Kutsehariduse maine üldhariduskoolide õpilaste, õpetajatening lapsevanemate seas* [Reputation of vocational education among general education students, their parents and teachers]. https://www.hm.ee/sites/default/files/documents/2022-10/kh_maine.pdf

Akkerman, S. F., & Bakker, A. (2011). Boundary crossing and boundary objects. *Review of educational research, 81*(2), 132–169. https://doi.org/10.3102/0034654311404435

Akkerman, S. F., & Bakker, A. (2012). Crossing boundaries between school and work during apprenticeships. *Vocations and Learning, 5*(2), 153–173. https://doi.org/10.1007/s12186-011-9073-6

Bakker, A., & Akkerman, S. F. (2019). The learning potential of boundary crossing in the vocational curriculum. In D. Guile, & L. Unwin (Eds.), The Wiley handbook of vocational education and training (pp. 351–371). John Wiley & Sons. https://doi.org/10.1002/9781119098713.ch18

Biemans, H., Mariën, H., Fleur, E., Tobi, H., Nieuwenhuis, L., & Runhaar, P. (2016). Students' learning performance and transitions in different learning pathways to higher vocational education. *Vocations and Learning, 9*, 315–332. https://doi.org/10.1007/s12186-016-9155-6

Billett, S., Le, A. H., Smith, R., & Choy, S. (2021). The kinds and character of changes adults negotiate across worklife transitions. *International Journal of Lifelong Education, 40*(5–6), 499–513. https://doi.org/10.1080/02601370.2021.1989723

Braun, V., & Clarke, V. (2006). Using thematic analysis in psychology. *Qualitative Research in Psychology, 3*(2), 77–101. https://doi.org/10.1191/1478088706qp063oa

Clarke, V., & Braun, V. (2017). Thematic analysis. *The Journal of Positive Psychology, 12*(3), 297–298. https://doi.org/10.1080/17439760.2016.1262613

Bronkhorst, L. H., & Akkerman, S. F. (2016). At the boundary of school: Continuity and discontinuity in learning across contexts. *Educational Research Review, 19*, 18–35. https://doi.org/10.1016/j.edurev.2016.04.001

Catterall, J., Davis, J., & Yang, D. F. (2014). Facilitating the learning journey from vocational education and training to higher education. *Higher Education Research & Development, 33*(2), 242–255. https://doi.org/10.1080/07294360.2013.832156

Cedefop. (2017). *Cedefop European public opinion survey on vocational education and training* (Cedefop research paper No 62). Publications Office. https://doi.org/10.2801/264585

Council of the European Union. (2016). Council recommendation of 19 December 2016 on upskilling pathways: New opportunities for adults. *Official Journal of the European Union, C 484*, 1–6. https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=OJ%3AJOC_2016_484_R_0001

Crossan, B., Field, J., Gallacher, J., & Merrill, B. (2003). Understanding participation in learning for non-traditional adult learners: Learning careers and the construction of learning identities. *British Journal of Sociology of Education, 24*(1), 55–67. https://doi.org/10.1080/01425690301907

Curtis, D. (2009). *Student transfer*. National Centre for Vocational Education Research. https://www.ncver.edu.au/__data/assets/file/0010/2404/nd06103.pdf

Eesti Pank. (2024). *Labour market review*. https://haldus.eestipank.ee/sites/default/files/202406/tty_1_2024_eng.pdf

Estonian Educational Database Haridussilm. (n.d.). https://www.haridussilm.ee/en

Etikan, I., Musa, S. A., & Alkassim, R. S. (2016). Comparison of convenience sampling and purposive sampling. *American Journal of Theoretical and Applied Statistics, 5*(1), 1–4. https://doi.org/10.11648/j.ajtas.20160501.11

European Commission. (2025, April 8). *Estonia. National reforms in vocational education and training.* Eurydice. https://eurydice.eacea.ec.europa.eu/eurypedia/estonia/national-reforms-vocational-education-and-training

Field, J. (2012). Transitions in lifelong learning: Public issues, private troubles, liminal identities. *Studies for the Learning Society, 2*(2–3), 4–11. https://doi.org/10.2478/v10240-012-0001-6

Field, J. (2013). Lifelong learning and the restructuring of the adult life course. In W. Schroer, B. Stauber, A. Walher, L. Bohnisch, & K. Lenz (Eds.), *Handbuch Übergänge* [Handbook on transitions] (pp. 378–393). Beltz Juventa.

Field, J. (2010). Preface. In K. Ecclestone, G. Biesta, & M. Hughes (Eds.), *Transitions and learning through lifecourse* (pp. 17–24). Routledge.

Field, J., & Lynch, H. (2015). Getting stuck, becoming unstuck: Agency, identity and transitions between learning contexts. *Journal of Adult and Continuing Education, 21*(1), 3–17. https://doi.org/10.7227/JACE.21.1.2

Frawley, J., Smith, J. A., Gunstone, A., Pechenkina, E., Ludwig, W., & Stewart, A. (2017). Indigenous VET to higher education pathways and transitions: A literature review. *International Studies in Widening Participation, 4*(1), 34–54. https://novaojs.newcastle.edu.au/ceehe/index.php/iswp/article/view/45

Golding, B., & Vallence, K. (1999). *The university-VET transition.* UTS Research Centre for Vocational Education and Training.

Haltia, N., Isopahkala-Bouret, U., & Jauhiainen, A. (2022). The vocational route to higher education in Finland: Students' backgrounds, choices and study experiences. *European Educational Research Journal, 21*(3), 541–558. https://doi.org/10.1177/1474904121996265

Harris, R., & Ramos, C. R. (2012). 'The one less travelled': Adult learners moving from the academic sector to the vocational sector in Singapore and Australia. *Journal of Vocational Education & Training, 64*(4), 387–402. https://doi.org/10.1080/13636820.2012.691539

Kitto, S. C., Chesters, J., & Grbich, C. (2008). Quality in qualitative research. *Medical Journal of Australia, 188*(4), 243–246. https://doi.org/10.5694/j.1326-5377.2008.tb01595.x

Koeglreiter, G., Torlina, L., & Smith, R. (2008). Reaching beyond the "boundaries": Communities of practice and boundaries in tertiary education. In C. Kimble, P. Hildreth, & I. Bourdon (Eds.), *Communities of practice: Creating learning environments for educators* (Vol. 1, pp. 163–190). Information Age Publishing.

Loogma, K., Ümarik, M., Sirk, M., & Liivik, R. (2019). How history matters: The emergence and persistence of structural conflict between academic and vocational education: The case of post-Soviet Estonia. *Journal of Educational Change, 20*, 105–135. https://doi.org/10.1007/s10833-018-09336-w

Martin, M., & Furiv, U. (2022). *Increasing equity through diverse entry pathways into higher education: Flexible learning pathways in higher education* (IIEP Policy Brief No. 1). UNESCO International Institute for Educational Planning.

Masdonati, J., Fournier, G., & Lahrizi, I. Z. (2017). The *reasons behind a career change through vocational education and training. International Journal for Research in Vocational Education and Training, 4*(3), 249–269. https://doi.org/10.13152/IJRVET.4.3.4

Mavromaras, K., & McGuinness, S. (2012). Overskilling dynamics and education pathways. *Economics of Education Review, 31*(5), 619–628. https://doi.org/10.1016/j.econedurev.2012.02.006

Merriam, S. B. (2005). How adult life transitions foster learning and development. *New Directions for Adult and Continuing Education, 108*, 3–13. https://doi.org/10.1002/ace.193

Milena, Z., Dainora, G., & Alins, S. (2008). Qualitative research methods: A comparison between focus-group and in-depth interview. *Annals of the University of Oradea, Economic Science Series, 4*(1), 1279–1283.

Ministry of Education and Research. (2017). *Background report for OECD on vocational education and training (VET) in Estonia*. https://www.hm.ee/sites/default/files/documents/2022-10/oecd_vet_background.pdf

Ministry of Education and Research. (2022). *Vocational education*.

https://www.hm.ee/en/education-research-and-youth-affairs/general-education/vocational-education

Murasov, M. (2024). *Edukus tööturul 2022: Üldkesk-, kutse- ja kõrghariduse lõpetanute hõive ja palgad* [Labour market performance 2022: Employment and salaries of general secondary, vocational and higher education graduates]. Ministry of Education and Research. https://www.hm.ee/sites/default/files/documents/2024-02/Edukus%20t%C3%B6%C3%B6turul%202022.pdf

Nowell, L. S., Norris, J. M., White, D. E., & Moules, N. J. (2017). Thematic analysis: Striving to meet the trustworthiness criteria. *International Journal of Qualitative Methods, 16*(1), 1–13. https://doi.org/10.1177/1609406917733847

Nylund, M., Rosvall, P.-Å., & Ledman, K. (2017). The vocational–academic divide in neoliberal upper secondary curricula: The Swedish case. *Journal of Education Policy, 32*(6), 788–808. https://doi.org/10.1080/02680939.2017.1318455

Pallas, A. M. (2003). Educational transitions, trajectories, and pathways. In J. T. Mortimer, & M. J. Shanahan (Eds.), *Handbook of the life course* (pp. 165–184). Springer US.

Räis, M. L., Kallaste, E., Kaska, M., Järve, J., & Anspal, S. (2014). *Põhi-ja keskhariduseta täiskasvanute tasemeharidusse tagasitoomise toetamine* [Supporting the reintegration of adults without basic and upper secondary education into further education]. Centar. https://dspace.ut.ee/server/api/core/bitstreams/7ead5c29-121d-4f43-9cee-f1bd911b944b/content

Räis, M. L., Kallaste, E., & Sandre, S. L. (2016). *Haridusliku erivajadusega õpilaste kaasava hariduskorralduse ja sellega seotud meetmete tõhusus: Temaatiline raport: kaasamise tähenduslikkus* [Effectiveness of inclusive education and related measures for pupils with special educational needs: Thematic report on the importance of inclusion]. Centar. https://dspace.ut.ee/server/api/core/bitstreams/c183abe1-5f82-45a2-aabb-e50805af3141/content

Standard of Vocational Education. (2013). https://www.riigiteataja.ee/en/eli/515012020003/consolide

Statistics Estonia. (n.d.) *Vocational education.* https://www.stat.ee/en/findstatistics/statisticstheme/education/vocational-education

Sych, S. M. (2016). The divide between vocational and academic education and how we might be able to repair the rift. *Journal of the Canadian Association for Curriculum Studies, 14*(2), 43–52. https://doi.org/10.25071/1916-4467.40258

Tønseth, C. (2018). Anticipated and unanticipated transitions as triggers for adult learning. *Creative Education, 9*(2), 165–181. https://doi.org/10.4236/ce.2018.92013

Townsend, B. K., & Lambert, R. Y. (1999). Postbaccalaureate reverse transfers in Maryland and Tennessee: Institutional problems and possibilities. *New Directions for Community Colleges*, *106*, 67–76.

Vanderburg, R., Harris, L., Dargusch, J., & Richardson, S. (2023). Low socioeconomic status students transitioning from vocational education and training (VET) to university: Examining definitions of success. *Higher Education Research & Development, 42*(3), 742–756. https://doi.org/10.1080/07294360.2022.2089098

van Houten, M. (2020). Individual development in a neoliberal context: Climbing to a 'glass ceiling'? A plea for liberal pedagogy in upper secondary vocational education. *Nordic Journal of Vocational Education and Training, 10*(2), 1–20. https://doi.org/10.3384/njvet.2242-458X.201021

Varmecky, J. H. (2012). Learning for life transitions. *Journal of Adult Education, 41*(2), 1–11.

Walther, A., Stauber, B., & Settersten Jr, R. A. (2022). "Doing transitions": A new research perspective. In B. Stauber, A. Walther, & R. A. Settersten Jr (Eds.), *Doing transitions in the life course: Processes and practices* (pp. 3–18). Springer International Publishing. https://doi.org/10.1007/978-3-031-13512-5

Wenger, E. (2000). Communities of practice and social learning systems. *Organization, 7*(2), 225–246. https://doi.org/10.1177/135050840072002

Wenger, E. (2010). Conceptual tools for CoPs as social learning systems: Boundaries, identity, trajectories and participation. In C. Blackmore (Ed.), *Social learning systems and communities of practice* (pp. 125–143). Springer. https://doi.org/10.1007/978-1-84996-133-2_8

Yang, P. (2006). UCLA community college review: Reverse transfer and multiple missions community colleges. Community *College Review, 33*(3–4), 55–70. https://doi.org/10.1177/009155210603300304

Zhu, R., & Chen, L. (2016). Overeducation, overskilling and mental well-being. *The BE Journal of Economic Analysis & Policy, 16*(4), 20150187. https://doi.org/10.1515/bejeap-2015-0187

Zittoun, T. (2008). Learning through transitions: The role of institutions. *European Journal of Psychology of Education, 23*, 165–181. https://doi.org/10.1007/BF03172743