

The vocational route to higher education in Finland: Students' backgrounds, choices and study experiences

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Abstract

Division between academic and vocational education is a predominant feature of both upper secondary and higher education in Finland as well as in many other country contexts. This article focuses on a minority of higher education students, those who have not proceeded to higher education through the traditional academic track but have enrolled through the vocational route. We deploy the concept of institutional habitus and utilize Eurostudent VI survey data ($N=7318$) to analyse the backgrounds and study experiences of higher education students with different kinds of educational backgrounds. Our findings indicate that those enrolling through the vocational route are more often mature students from lower parental educational backgrounds. They have often completed a longer study path and began to see themselves as future higher education students later in their life course. There are also differences in how students with diverse educational backgrounds experience their sense of belonging to the higher education community. This paper focuses on Finland but has relevance for other European countries as the institutional structures and practices discussed in this paper are evident internationally.

Keywords

Access to higher education, non-traditional students, study experiences, vocational route to higher education, institutional habitus

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Introduction

In Finland, as in other European countries, a widely shared discourse is that access to higher education (HE) should be open and fair regardless of one's social background. The need to widen access policies has been recognized as part of the European policy agenda, and strong emphasis has been placed on the social dimension of HE (Holmegaard et al., 2017; Orr and Hovdhaugen, 2014). Widening access is not only a question of student admission policies but concerns the overall quality and flexibility of the post-compulsory educational system. In practice, what are a student's chances to move from one sector and level of education to another, and does the system include 'dead-end' paths? The key question here is how open the pathway from vocational education to HE actually is. Moreover, from the systems and policy perspectives, the potential to increase the fairness of access lies not just in participation in HE, but also in where and how students with vocational backgrounds participate (Hoelscher et al., 2008). In this paper, we are particularly interested in these under-researched policies to widen access and aim to investigate the backgrounds, choices and experiences of students who have accessed Finnish HE through the vocational education pathway.

In the Finnish context, questions regarding widening participation are manifest on broadly defined universal principles. In terms of who is eligible to enter HE, student admission is guided by the objective to eliminate dead-end paths from the system. Vocational qualifications have offered general eligibility to pursue HE since 1998 (Haltia et al., 2017). Furthermore, as HE is largely funded by the state and degree programmes do not have tuition fees, there is a political consensus that there is no need for special initiatives to widen access by focusing on under-represented groups (see Isopahkala-Bouret et al., 2018; Thomsen et al., 2013). There are no preparatory programmes or admission procedures aimed at 'non-traditional' or first-generation students. Institutions do not systematically collect follow-up statistics on students' backgrounds or provide any targeted student counselling or support for mature students or those from working-class or immigrant backgrounds.

The division between academic and vocational education is a predominant feature of both upper secondary education and HE in Finland (Isopahkala-Bouret, 2015). The academic–vocational divide has been a persistent phenomenon, especially in secondary education and despite the state's goal to narrow this divide (Nylund et al., 2018). Historically, the academic–vocational divide associated with social class can be seen as an instrument that has excluded working-class young people from HE and strongly contributed to the reproduction of class structure in Finnish society (Jauhiainen, 2011). Still today, even though the formal barriers blocking transition between sectors have been abolished and those with vocational qualifications are formally eligible to apply to university, secondary education continues to prepare its students – explicitly or implicitly – for certain kinds of post-secondary choices, and for a certain spectrum of HE institutions.

In this article, we focus on students who have not proceeded to Finnish HE through the traditional academic route; that is, have not passed matriculation exams. We will compare how these 'non-matriculated' students differ from their peers who have attained general upper secondary school and completed matriculation exams. We will investigate their social and educational backgrounds and choice of HE sector, and explore their experiences and sense of belonging to their current study programmes. This issue has been rarely studied in Finland, but according to previous research we can hypothesize that students with vocational backgrounds differ from their matriculated peers in that they are older in age and come from a different social background (Haltia et al., 2018; Piesanen, 2005; Rinne et al., 2008). Further, it can be expected that these students might have feelings of being 'outsiders' in the HE context (e.g. Käyhkö, 2015; Reay et al., 2010).

This paper focuses on Finland but has relevance for other European countries that want to develop transitional pathways from vocational education to HE. Indeed, the institutional structures and practices discussed in this paper that affect student choice are evident internationally. The issue is topical as more than half of the European countries have vocational routes through secondary schooling that do not lead to a qualification enabling HE entry (Orr et al., 2017). In addition, some countries that used to have an open system, like Sweden (Olofsson, 2013), have restricted access to HE with vocational qualifications in the second decade of the 21st century.

The academic–vocational divide in Finnish upper secondary education and entrance to HE

The structure of the upper secondary education system is closely connected to the HE system and the different kinds of entrance routes to university. In many national systems, there is some sort of division between academic and vocational programmes in secondary education, but in the Finnish system this division is very sharp, as different programmes are organized in separate institutions (Nylund et al., 2018). Furthermore, the Finnish HE system is divided into academic and professional tracks: academic research universities and vocational/professional universities of applied sciences. This dual system of HE initially relied on the belief that a clear differentiation between academic and professional tracks brings more choice, and that this is favourable for the objectives of equal opportunity, widened access and inclusion (Isopahkala-Bouret, 2015; Jalava, 2013; Stenström and Virolainen, 2016a.)

After finishing 9 years of comprehensive school at the age of 16, young people typically decide whether to continue their studies in general upper secondary school (*lukio*) or in vocational upper secondary institutions (*ammattillinen oppilaitos*). The general upper secondary schools offer one comprehensive academic programme that aims to prepare students for HE. The vocational institutions offer 53 programmes which focus on providing training for specific trades or occupations. Approximately 40% of the student population in Finland is enrolled in vocational programmes, which is a higher percentage than in other Nordic countries (Nylund et al., 2018). One reason for the relatively high attractiveness of vocational education is the general eligibility to pursue HE (Haltia et al., 2017). However, there is no systematic research about whether the high rate of participation in vocational education has resulted in the increasing participation of students with vocational backgrounds in Finnish HE (cf. research in the United Kingdom (UK): Hoelscher et al., 2008).

The main dividing artefact between academic and vocational paths, in terms of entrance to HE, is the Finnish matriculation exam (comparable to the French baccalaureate or the UK's General Certificate of Education (GCE) Advanced Level). The original function of the matriculation exam, at the end of the 19th century, was to determine whether students in general upper secondary schools had achieved sufficient maturity for university studies. Therefore, it was a gateway to university. In addition it was, and still is, the Finnish school system's only nationwide standardized examination. It has been a highly respected, even overvalued, examination in Finnish culture and society (Vuorio-Lehti, 2006; Vuorio-Lehti and Jauhiainen, 2008.)

Today, this explicit link between the matriculation exam and HE no longer exists, and since the 1990s the general eligibility for HE has been gained through completion of a three-year curriculum-based qualification in secondary vocational education. The function of the establishment of universities of applied sciences in the 1990s was also to create a more practice-oriented option to HE on the side of the traditional research universities (Stenström and Virolainen, 2016b). However, the main route to HE continues to go through general upper secondary school and the matriculation

examination. For example, in 2014 only 5.5% of university applicants and 3.0% of accepted applicants were non-matriculated (Haltia et al., 2018). Universities of applied sciences attract more students with vocational qualifications, but, even there, the majority of the students have matriculated (Ministry of Education and Culture (MoEC), 2014: 17).

The entry requirement of the universities of applied sciences is a certificate from an upper secondary school, the matriculation exam or a vocational qualification (Stenström and Virolainen, 2016b). Entrance to research university is typically based on the matriculation examination score, success in an HE institution's entrance examination or a combination of the two. The entrance examination usually tests knowledge of material selected by institutions, and in some programmes there may also be interviews or other tasks to evaluate the applicants' suitability for the programme.

Furthermore, recently implemented reform of the student admission process aims to radically reduce the significance of entrance examinations and increase the weight of the matriculation examination in student selection (MoEC, 2016). This reform aims at simplification of the student admission system with a view to making the transition more effective. This will potentially reduce the possibilities offered for non-matriculated applicants and further direct their choices towards universities of applied sciences. Government policy has called for the development of alternative routes to HE (MoEC, 2017), but at the same time the focus of the current reform is to strengthen and standardize the regular admission track (Haltia et al., 2019).

Institutional habitus, choice and experience of HE

Individuals do not make their educational choices only on a rational basis; rather, their decisions are in many ways interconnected with their backgrounds, life histories and identities (Beach and Puaca, 2014). Students' experiences in upper secondary school undoubtedly affect their HE aspirations and destinations (Reay et al., 2005). The organizational context and cultural practices of school, especially the imposition of academic standards, are influencing whether students will (and *where* they will) continue their post-secondary education (Ball et al., 2000; McDonough, 1997). Furthermore, inequalities in educational choice persistently reproduce differing positions of qualifications from different sectors of secondary education (see Labrosse et al., 2017). The 'implied student' (Ulriksen, 2009) in HE continues to be a student who has completed the academic upper secondary route and passed the matriculation examination (see e.g. MoEC, 2016).

The notion of institutional habitus is useful in research on educational choices, as it incorporates the question of how institutional practices shape relations between individuals and groups. The concept was first used by Diane Reay (1998), who deployed Bourdieu's conceptual tools in studying HE choice and the interplay of familial and institutional habitus in decision-making practices. In the school context, institutional habitus is seen in the kinds of expectations that schools and teachers have for pupils, in the level of support students receive and in the types of choices towards which they are steered. Moreover, within the same school, institutional habitus can be mobilized differently for different kinds of pupils, depending on their cultural and socioeconomic backgrounds. (Reay, 1998.)

Reay et al. (2001) developed an analysis of institutional habitus and separated out its different components. One component is educational status, which refers to the kinds of universities for which an institution is preparing its students. Another component is an institution's organizational practices, such as the curriculum it offers, and the third one, expressive order, consists of factors concerning the culture, expectations and conduct within the institution (Reay et al., 2001). Other researchers have also applied the concept in the school context to attest to the concept's suitability in this setting (Ingram, 2009; Smyth and Banks, 2012; Tarabini et al., 2017).

Schools do not function independently of universities, and specific connections between schools and HE institutions can be found (Reay et al., 2001). Similarly, HE institutions have institutional habitus and contain the same components found in schools, with educational status now referring to the position of the institution in the university hierarchy. Individuals typically choose institutions in which they feel comfortable. This tends to deepen any divisions that exist between institutions, as an institution's culture and practices are reproduced through this process (Crozier et al., 2008; Reay et al., 2010; Thomsen et al., 2013).

The interplay of institutional and individual habitus results in different kinds of learner identities and experiences of 'fitting in' or 'standing out' in relation to the institutional habitus of HE institutions (Nairz-Wirth et al., 2017; Reay et al., 2010). Therefore, pedagogy is not just about teaching or neutral knowledge transfer. It is also an instrument of socialization that transmits culture, manners, attitudes and values. Pedagogical practices can be experienced by students as supportive and inclusive, or as prioritizing certain kinds of student habitus (Thomas, 2002).

Institutional habitus is an important divide between high-prestige and low-prestige educational institutions (Reay et al., 2001); the right kind of institutional habitus in upper secondary school ensures favourable HE opportunities and social advantages in the future. Much research originating from the United States and the UK attributes a 'school effect' to individual schools that are differently positioned within a rank order of similar upper secondary institutions. This school effect explains how the habitus of high-prestige and low-prestige high schools differs and how this difference impacts students' HE choices (e.g. Crozier et al., 2008; Ingram, 2009; Reay et al., 2010). The institutional habitus of vocational institutions (programmes) has been previously studied in Australia (Barber and Netherton, 2018), where it was found that success in vocational studies and encouraging attitudes from teachers have been key in helping students create positive images of themselves as HE students.

Our argument is that in country contexts that entail the dual system of upper secondary education described above, the school effect argument needs to be adopted to address differences between vocational and academic education sectors (see Nairz-Wirth et al., 2017). The question that arises is how the attainment of vocational upper secondary qualifications, instead of the choice of *lukio* and the completion of the matriculation exam, influences students' choices and outcomes in HE. Presumably, vocational upper secondary institutions better prepare their students for working life than for HE. As such, when students with vocational backgrounds enter HE, they more often gain entry to the vocational/professional HE sector. In Finland, that means access to universities of applied sciences rather than academic research universities.

From an equity perspective, the choice of HE based on 'belonging' or the feeling that a particular institution or study programme is for 'people like us' can be problematic (Beach and Puaca, 2014). For example, a higher proportion of students in vocational HE programmes come from working-class or non-academic backgrounds (Virolainen and Valkonen, 2012). These programmes often offer less socially desirable credentials and narrower returns in the labour market. In some cases, they can preclude possibilities of graduate study and membership in the professions (Isopahkala-Bouret, 2015). Therefore, they are not appealing alternatives for students coming from more privileged backgrounds. Young applicants from affluent urban backgrounds are more likely to end up in HE institutions than others, which leads to a student body in universities that is skewed toward higher socioeconomic status (Kivinen et al., 2012; Nori, 2011).

Research questions, data and methods

In this article, our special interest is in those students who have enrolled in HE through the vocational route. We use the terms 'matriculated' and 'non-matriculated' for students, referring to the

division between those who have taken the traditional academic track to HE and those who have completed the upper secondary vocational qualification (see Haltia et al., 2017, 2018). Very little prior research exists on the transition into HE among students holding upper secondary vocational qualifications (see, however, Barber and Netherton, 2018; Haltia et al., 2018; Hillmert and Jacob, 2003; Hoelscher et al., 2008; O'Shea et al., 2012). In particular, we aim to investigate interconnections between student background, choice of HE sector and study experiences in HE.

Previous research utilizing the concept of institutional habitus has applied qualitative methodologies (e.g. Crozier et al., 2008; Nairz-Wirth et al., 2017; Reay et al., 2010). Our approach departs from this line of research by looking at quantitative survey data in discovering the effects of institutional characteristics and their interplay with the students' backgrounds. We are aware that this entails some limitations, as the meanings given to studies and the negotiations that students are doing in relation to their past, present and future remain largely hidden in the survey data. However, some of the survey items can be seen as closely connected to the issues related to the concept of institutional habitus, which enables us to reflect our findings to this theoretical framework. Such items include measures on integration and expectations of studies (see research question 2).

The article seeks answers to the following research questions:

1. How do non-matriculated students in HE institutions differ from their matriculated peers in terms of background (i.e. age, gender, life situation, preparedness for HE study, and parental education) and choice of HE sector (research university or university of applied sciences)?
2. How do non-matriculated students experience their HE studies and study environment compared to the matriculated students? Are there differences in:
 - (a) feeling of belonging to the HE community?
 - (b) positive experience with teachers?
 - (c) satisfaction with the organization of studies?
 - (d) expectations concerning the studies?

This study derives data from a Eurostudent VI survey that broadly investigated students in European HE institutions in 2016. We use the data on Finland ($N=7381$). The national data collection carefully followed the guidelines of the Eurostudent project (see German Centre for Higher Education Research and Science Studies (DZHW), 2018), utilizing a stratified random sample where all HE institutions were included. The sample consists of basic degree students from bachelor's and master's degree levels. The net response rate was 35 %. University students comprised 50.9% ($n=3725$) and students of universities of applied sciences 49.1% ($n=3656$) of the respondents (Potila et al., 2017).

In our analysis, only those students who had pursued their secondary level education in Finland were included. Variables on socioeconomic status and educational background, attitudes towards studying and experiences in one's study programme were used. The data were analysed primarily using cross-tabulation and one-way analysis of variance. To increase the generalizability of the results, the weighting coefficient calculated by Statistics Finland was used.

Findings

Non-matriculated students in Finnish HE institutions

In our earlier research on non-traditional access to universities, we discovered that prior education was a significant factor in gaining entry to HE (Haltia et al., 2018). When the entry of non-matriculated students was analysed in that study, it was found that many of the applicants with vocational

Table 1. The grouping of students.

	General upper secondary school and matriculation examination (academic route)	Non-matriculated/secondary vocational qualification (vocational route)
Has a degree from higher education	Matriculated students with higher education degree ($n=1489$)	Students with a vocational qualification and higher education degree ($n=204$)
Does not have a degree from higher education	Matriculated students ($n=2247$)	'Between two worlds' ($n=620$) Students with only vocational qualification ($n=874$)

qualifications had already obtained previous degrees from HE institutions. These students, often a bit older than average, were more successful in admissions, and thus a significant proportion of non-matriculated students in universities are actually mature students who already have previous HE degrees.

This specific finding guided us in analysing our current data. Because of the diversity in educational backgrounds, we wanted to take into account not only the students' secondary level education but also their possible prior experiences in HE, and therefore we decided to make a grouping of students according to their previous educational backgrounds. As a focal factor, we wanted to consider whether a student had taken the matriculation examination or had obtained a secondary level qualification from a vocational institution. Another factor that we wanted to consider was whether the student had obtained a previous degree from a HE institution. Thus, our analysis allows us to make comparisons along these two dimensions: the sectoral divide (academic–vocational) and the highest level of prior education (upper secondary or higher).

By combining some variables in the Eurostudent data, we formed a grouping that divided the students into five different groups (see Table 1). The biggest group was comprised of those matriculated students who had no prior HE degrees ($n=2247$). The second largest group was made up of those who, in addition to the matriculation examination, had obtained a previous HE degree ($n=1489$). The third group was comprised of those who had upper secondary qualifications from vocational institutions without a prior HE degree ($n=874$). As a fourth group, we identified a number of students who had pursued both vocational upper secondary qualifications and academic education, including taking the matriculation examination. Because these students had experience from both tracks of upper secondary education, this group was named 'between two worlds'. As the smallest group, we identified the students who had a vocational qualification and in addition a HE degree ($n=204$).

This grouping allowed us to make comparisons between those who have taken the academic route to HE (i.e. the matriculated students) and those who have taken the vocational route (i.e. non-matriculated students). We were also able to compare those who have completed only secondary level education to those who have gained some sort of prior HE degree.

The groups had different life situations and backgrounds (see Table 2). In terms of gender, there were no striking differences between the groups. However, the groups with prior HE degrees and especially the 'between two worlds' group were the most female-dominated. When looking at age, it is clear that those groups with previous HE degrees are older than those with only secondary level education. Respectively, non-matriculated students are older than the matriculated students with the same education level. The non-matriculated students had taken a longer study path to HE

Table 2. Background information of student groups in Finnish higher education institutions.

	Upper secondary school graduates %	Students with only vocational qualification %	'Between two worlds' %	Upper secondary school graduates with higher education degree %	Students with a vocational qualification and higher education degree %	In total %
Gender						
Female	51.0	49.7	57.3	59.1	54.2	54.0
Male	49.0	50.3	42.7	40.9	45.8	46.0
Age						
Under 22	32.5	14.0	10.8	0.8	0.0	18.0
22-24	40.4	23.8	25.1	16.9	4.0	28.0
25-29	17.4	22.6	28.7	37.1	19.4	25.3
30 or over	7.1	39.3	35.5	45.3	76.7	28.7
Language proficiency						
One language	27.0	44.2	34.2	26.0	48.8	31.0
Two languages	50.8	45.3	51.6	49.8	37.5	49.3
Three or more languages	22.2	10.4	14.1	24.2	13.7	19.6
Children						
Does not have	96.0	68.1	73.7	76.7	41.0	81.8
Has children	4.0	31.9	26.3	23.3	59.0	18.2
Mode of study						
Full-time	95.5	85.6	84.3	71.2	50.0	84.3
Part-time	4.5	14.4	15.7	28.8	50.0	15.7
Parents' education						
Mother has higher education	47.3	20.5	34.4	42.4	16.2	39.2
Father has higher education	43.4	19.1	30.4	39.7	20.4	36.2

Table 3. Proportions of student groups in different sectors of higher education in Finland.

	Universities	Universities of applied sciences	In total
Matriculated students	44.3%	38.5%	41.4%
Students with only vocational qualification	2.5%	29.5%	16.1%
'Between two worlds'	6.1%	16.7%	11.4%
Matriculated students with higher education degree	42.9%	12.0%	27.4%
Students with a vocational qualification and higher education degree	4.1%	3.4%	3.8%
In total	100%	100%	100%

than the students who had completed general upper secondary education and passed the matriculation examination.

The older age of non-matriculated students also reflected the realities of their life situations. The students from the non-matriculated groups were more likely to have children than those from the matriculated groups. They considered themselves to be part-time students more often than their matriculated peers. In addition, those with previous HE differed from those with only secondary level degrees. Thus, if placed on a continuum, the groups followed in a certain order. Students with a vocational qualification and HE degree were the oldest, clearly mature students. Matriculated students with HE degrees could also clearly be seen as a group of mature students. At the other end of the continuum, matriculated students formed the youngest group, and students with only vocational qualifications were the second youngest group. The 'between two worlds' group was in the middle, with the most heterogeneous student population along this continuum.

In terms of parental education, matriculated groups more often had academically educated parents with HE credentials. It seems that they made educational choices in their lives that reproduced their familial backgrounds. For non-matriculated students, the reverse was true: the choice to pursue HE often represented a decision that differed from their family's social background, even though their earlier (upper secondary) choice seemed to follow their parents' example.

As an indicator of their preparedness for HE study, students' language proficiency was studied. Here, the groups are clearly positioned according to their secondary education: Those who had passed the matriculation examination had learned more languages than non-matriculated students.

The choice of HE sector

Previous educational background is clearly connected with the choice of HE sector (see Table 3). The majority of the university students were matriculated, and the proportion of non-matriculated ones (i.e. students with only vocational qualifications and students with both vocational qualification and HE degree) was 6.6%. Students with non-matriculated backgrounds are much more common in universities of applied sciences, where their proportion was 32.9%. The difference between the two sectors of HE was clearly visible.

In the field of university education, students with only vocational qualifications are a marginal group. They can be perceived as exceptional individuals who have made their way to university despite the fact that they have not pursued academic secondary education. The universities of applied sciences, however, seem to be much more open to students from non-traditional backgrounds. If a person with only a vocational qualification starts HE, they almost always choose a university of applied sciences. According to Hoelscher et al. (2008), the same kind of pattern is

found in the UK context: students with vocational backgrounds most often enrol in post-1992 institutions.

Those possessing both a vocational qualification and an HE degree are almost equally distributed between academic universities and universities of applied sciences. Thus, it can be stated that universities of applied sciences also serve as a gateway to the sector of HE for these students. On a very concrete level, their previous degrees also enable mature entrants to utilize different kinds of entry routes and gain access to programmes designed for them (Haltia et al., 2018). Our cross-sectional survey data does not enable us to explore individual trajectories of the students and to look at which routes to HE these students have taken. However, our results strongly suggest that the first step to HE for these non-matriculated students often is a more vocationally oriented institution. It can be claimed that a vocational route to university is possible when the applicant has pursued education from institutions of HE and has the ability to strategically utilize different kinds of entry routes designed for mature students.

Experiences of non-matriculated students in Finnish HE institutions

Each of the aforementioned five groups possesses certain kinds of cultural capital. What is common for the non-matriculated groups is that they do not have the experience from academic upper secondary school and miss this kind of school effect. Instead, they have experience from vocational secondary schooling and have been socialized to the cultures predominant in this sector of secondary schooling. In addition, they come from family backgrounds with lower levels of parental education. Students with only vocational qualification have a kind of double disadvantage: they lack both the academic school effect and a favourable family background. It can be expected that this group is at greater risk of feeling alienated or at least ambivalent in the HE context. Students who have passed the matriculation examination, on the contrary, have cultural capital from home and also habitus, which is presumably more 'suitable' for academic studies.

Many students, however, have HE experience, since many hold degrees from universities of applied sciences or bachelor's degrees from universities. This provides them with capital the other groups do not have. They are more familiar with the cultures, practices and manners of HE institutions. This is why we cannot take it for granted that all entrants coming through the vocational route will have same kinds of experiences and class backgrounds. It is vital to note that cultural and other forms of capital differ.

The Eurostudent survey had some Likert-scale items about integration and expectations for HE. Principal component analysis was used to form the sum of variables to describe some elements of student experiences, and three themes were chosen for analysis: satisfaction with the organization of studies, positive experience with teachers and a feeling of belonging in the HE community (see Table 4). When reflected against the concept of institutional habitus, the first two can roughly be seen as measures on organizational practices, whereas the third one is connected to the expressive order of institutions (Reay et al., 2001).

Items in the original survey were reversed so that option 1 on the scale describes the most negative experience and option 5 the most positive. Analysis of variance was used to investigate the differences between the groups, and the Welch test was used to test the significance of the differences. Figure 1 shows the means of different sums of variables.

The feeling of belonging to the HE community was fairly positive in all of the groups, but it was the strongest among those who already had an HE degree. At the other end, those with only vocational qualifications experienced their belonging the weakest. The Games-Howell test was used as a post-hoc test, and, when different combinations were tested, in each pair this group significantly differed from the others. This finding reflects the notion that those with backgrounds

Table 4. Sum of variables concerning study experiences.

Sum of variables	Variable	Cronbach's alpha
Satisfaction with the organization of studies	Availability of courses	0.779
	Attitude of the administrative staff towards the students	
	Contents of education	
	Quality of the teaching	
	Organization of studies and timetables	
	Study facilities (e.g. library, computers, buildings, classrooms)	
Positive experience with teachers	Student counselling	0.733
	Attitude of the teachers towards the students	
	My teachers inspire me	
	Teaching staff is concerned with my learning process	
Feeling of belonging to the higher education community	I often have a feeling that I don't really belong to higher education (in reverse order compared to other items)	0.713
	I sometimes ask myself whether studying was the right choice for me (in reverse order compared to other items)	

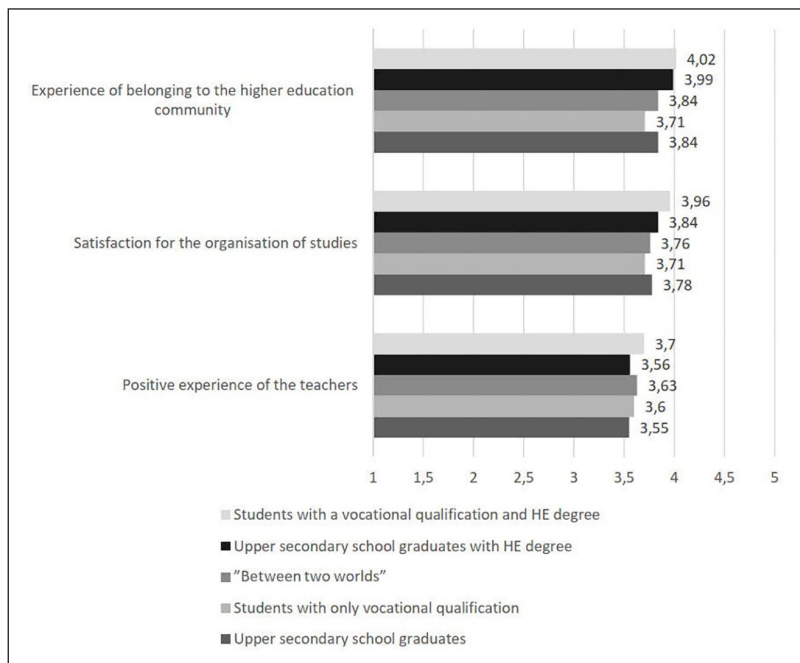


Figure 1. Means of study experiences (1=negative experience, 5=positive experience).
 Feeling of belonging to the higher education community: Welch's $F(4; 1119,697)=49,759; p<0.001$.
 Satisfaction with the organization of studies: Welch's $F(4; 1086,348)=9,253; p<0.001$.
 Positive experience with teachers: Welch's $F(4; 1091,490)=3,378; p<0.009$.

from vocational upper secondary schools more often have feelings of being strangers in an HE environment. On the other hand, those who already have experience of HE more often feel 'at home' within the community.

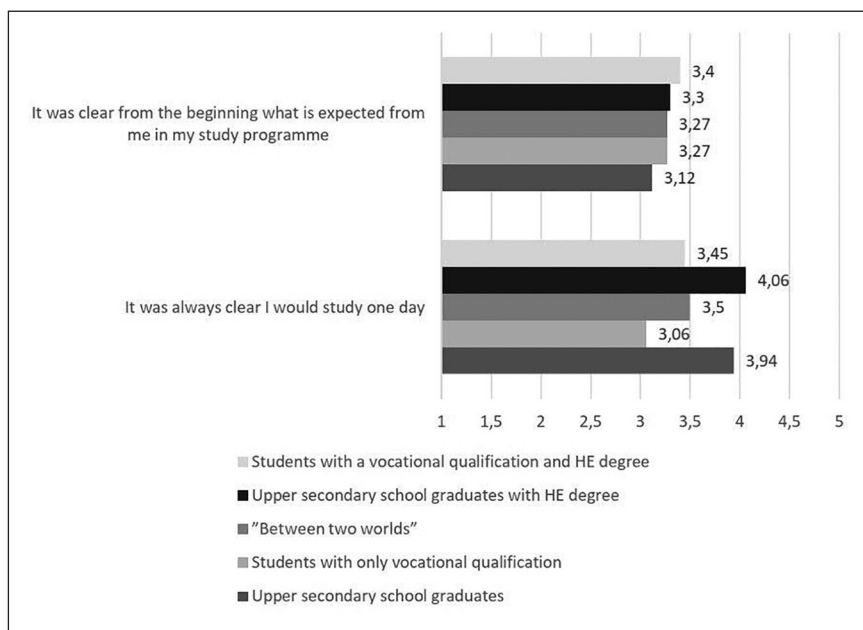


Figure 2. Means of two items in the survey (1=fully disagree; 5=fully agree).

It was always clear I would study one day: Welch's $F(4; 1121,740)=9,965; p<0.001$.

It was clear from the beginning what is expected from me in my study programme: Welch's $F(4; 1091,994)=114,161; p<0.001$.

Satisfaction with the organization of studies was also quite high, but it was lowest among those who only had a vocational qualification. Those who already had an HE degree reached the highest values, and, when compared in different combinations, this group differed significantly from other groups. Positive experience with teachers had somewhat lower values than the other themes studied here. The experience was most positive in the group of students with a vocational qualification and an HE degree, but the differences between groups were not statistically significant. Thus, our data seem to indicate that students' relations with staff are unaffected by their educational backgrounds (Thomas, 2002).

In addition to the themes below, two more items in the survey were analysed (see Figure 2). For the Likert item 'It was clear from the beginning what is expected from me in my study programme', the means were a bit over 3, which suggests that students in general seem to have some difficulties in their orientation to their studies. It seems that those with vocational qualifications and HE degrees do understand best what is expected, while those with only matriculation examinations have more difficulties than other groups. When looking more specifically at the differences between the groups, one finds that the matriculated student group differed significantly from all other groups. This group reported more difficulties than the others, which raises questions regarding whether these students have unrealistic expectations (Maloshnok and Terentev, 2017) or whether the general upper secondary school has been able to prepare them with adequate learning skills in the first place.

The item 'It was always clear I would study one day' separates the five different groups more clearly than any other item in the survey. Matriculated students (both those with only the matriculation examination and those with HE degrees) have always been very confident that they would one

day be HE students, while those with secondary vocational education had been more sceptical about this. This finding supports the notion that non-matriculated students have not been planning to study at the tertiary level in the first place, but they likely ended up in HE after making new choices and rethinking their life course. Their thoughts about further education may have developed from other studies, from needs generated in their work or from other life experiences. The openness of the education system and the possibility to proceed via different pathways are especially important for these kinds of students.

Discussion

The European education policy stresses equal opportunities and fair access to all levels and sectors of education. The discourse on widening participation has recognized the need to increase the participation of under-represented social groups in HE. However, the specific goal to widen access via the vocational route to HE has remained a contested issue. There are still many European countries that stream students in school and have one or more vocational routes that end with no possibility to access HE (Orr et al. 2017). Moreover, our findings suggest that the formal eligibility and the ideal of continuity in educational opportunities seems to fail in its realization. In Finland, the division between academic and vocational tracks in upper secondary education, as well as in HE, can be seen as separating students with different backgrounds onto different kinds of educational paths, thereby re-enforcing social stratification.

According to our study, students with vocational background, who enter HE without the matriculation examination, are clearly a minority among Finnish HE students, especially in the university sector. Non-matriculated students are more likely to study in Finnish universities of applied sciences than in research universities. Those individuals who make the simultaneous transition between educational levels (from upper secondary to HE) and educational sectors (from vocational to academic) are exceptional. Furthermore, the pattern of *delayed entry* is peculiar for students gaining entry through the vocational route, which indicates the importance of ensuring open and flexible routes to HE over the life course. Hillmert and Jacob (2010) have underlined the relevance of transition research that sheds light on ‘atypical’ transition, such as delayed transition. Non-matriculated students seldom have access to the university sector directly after vocational upper secondary education. It is more probable that they first attain a bachelor’s degree at a university of applied sciences and then gain entry to university.

These tendencies can be considered in conjunction with the concept of institutional habitus, which we described at the beginning of this article. As the dual system forms the strict vocational–academic division in the Finnish education system, the notion of institutional habitus needs to be addressed within this framework. The institutional habitus of secondary schools entails *educational status*, which concerns the question of where and for what kinds of positions the institution is preparing its students (Reay et al., 2001). As our findings strongly indicate, the academic–vocational divide is effectively streaming students onto different kinds of (higher) education tracks, resulting in different outcomes and social positions in working life and society. Therefore, it is important to ask not only whether students with vocational qualifications proceed to HE, but also *where* they go.

Another aspect of institutional habitus, *expressive order*, refers to the culture, conduct and expectations within institutions (Reay et al., 2001). This is connected to the question of how students are socialized to the idea of continuing their studies in HE. Here, our results clearly indicate that those who are matriculated expect to continue to HE and experience a somewhat easier transition from upper secondary to HE. Overall, non-matriculated students in HE come from lower parental educational backgrounds compared to students with the matriculation examination. They

are also older, have families and more often identify themselves as part-time students. Therefore, when we analysed the study experiences, students with only vocational qualifications seemed to be the most estranged in relation to HE, and HE did not appear to them to be a self-evident option. In comparison, for those students who had matriculated, it was typical that HE had always been part of their future plans. They were already socialized into the practices and culture of general upper secondary school, and thus they easily felt that they belonged to the HE community.

This relates to the last component of institutional habitus, *organizational practices*, which refers to how the curriculum is organized and what kind of knowledge is available in education (Reay et al., 2001). The curricula in the two sectors of the Finnish education system prepare students differently for further education, as the general upper secondary schools have more scientific and academic curricula, whereas vocational institutions' curricula are much more field-specific and connected to working life (e.g. Nylund et al., 2018). Furthermore, much vocational learning takes place in working-life contexts. As expected, our findings indicate that non-matriculated students feel themselves less prepared for HE than their matriculated peers. Research even suggests that there is a growing division between academic and vocational sectors in this respect (Nylund et al., 2018).

However, our results are more complex than that. Those who most often felt unsure about the requirements of their HE programme were not the students with vocational backgrounds but those who had passed the matriculation examination. Even if general upper secondary schools are preparing their students for further education, those students can still have difficulties with orientation and in grasping the requirements of their degree programme at the beginning of their HE studies. In any case, the organizational practices within HE institutions play a key role in shaping students' study experiences, regardless of their educational background. Furthermore, our results show that continuing education can change the sector-specific influence of institutional socialization. The feelings of belonging to a HE community and satisfaction with study arrangements were the most positive among both groups of students (matriculated and non-matriculated) with previous academic degrees, who already had experience in HE.

Here we have utilized the concept of institutional habitus in reflecting our survey results. This has enabled us to look at the dimensions of institutional habitus within large samples of students in Finnish HE institutions. We are aware of the limitations of this approach, though, and the next step in our research concerning students with a vocational background is to adopt a more qualitative orientation and conduct an interview study. Since the entry of non-matriculated students is especially difficult to research universities, we focus our future line of research to the experiences of students in them.

The concern that non-matriculated students are inadequately prepared leads many academics to conclude that the growing number of students with vocational backgrounds will result in lowering the entry requirements and pedagogical standards in HE. This keeps the policy discourse on widening access via the vocational route trapped into the *equity–excellence* dilemma (McCowan 2016). National policy-makers and HE institutions have responded differently to such challenges. One response to the increasing diversity in students' academic backgrounds has been to allocate more resources to HE and to offer preparatory courses and extra support for students to develop their academic proficiency. The opposite trend has been to develop short-term vocational qualifications that do not provide eligibility to HE and, by default, represent 'dead-end' paths in the educational system. Furthermore, student admission policies mediate access through the vocational path. For example, the recently implemented reform in Finland re-enforces the academic–vocational divide by strengthening the role of the matriculation examination and further restricts access from vocational upper secondary institutions to universities.

Finally, it is relevant to ask what kind of choice is actually made when young people make decisions about their secondary education. In the context of contemporary policy trends, which are dominated by neoliberal discourse stressing competition and individual success, it is crucial to maintain the policy of second chances and enable 'atypical' pathways and transitions to HE. Keeping the doors of possibility open for students with vocational education backgrounds is important, not just for the individuals directly affected but also from the point of view of European egalitarian values and the principles of lifelong learning.

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