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Student engagement at the beginning of vocational studies

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Abstract

This mixed-methods study examined student engagement at the beginning of vocational studies. The focus of the study was on students' certainty about their career choices, how they experienced the social environment in vocational education and the relationship of these factors to student engagement. Firstly, 364 first-year students (aged 15–17) participated in the quantitative survey. Secondly, 17 students were selected for interviews. According to the results, student engagement at the beginning of vocational studies is related to overcoming uncertainty. In addition, students' engagement and career choices are strengthened by the support and confirmation they receive, the students' interest in their studies, their general abilities and their coping skills. Having friends at school diminished feelings of insecurity while co-operating with friends eased their sense of inadequacy. According to the results, teaching and the organisation of schooling may promote or hamper learning and active participation. Therefore, student engagement in vocational education seems to be strengthened through interactions with other students, friends and peers, and the teachers and other adults in the student's life. This supports a more collective and collaborative view of engagement.

Keywords: student engagement, vocational education, first-year student, adolescence, mixed-methods

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Introduction

Student engagement is perceived as a positive indicator of success, playing a significant role in personality development and supporting lifelong learning (e.g. Kuh, 2003). It is regarded as having longitudinal effects that influence education and career choices later in life (Abbott-Chapman, Martin, Ollington, Venn, Dwyer & Gall, 2014). Despite the vast amount of recent research on student engagement (e.g. Lippke & Wegener, 2014; Nielsen, 2016; Xerri, Radford & Shacklock, 2018), research on student engagement in relation to the social environments of vocational education and training (VET) is scarce. In addition, the effect of students' certainty about their career choices on student engagement in the VET programmes has received limited attention. In this study, we focus on first-year students' engagement in the VET context in Finland.

The aims of vocational education are to develop young people's professional skills and the skills required for working life and to promote employment. Furthermore, it should equip students with the knowledge and skills needed for personal development and participation in further education. (Act on Vocational Education 2017/531 § 2.) In Finland, interest in VET has increased in popularity. In 2016, 42% of students continued on to vocational education after comprehensive school (Official Statistics of Finland, 2016). The Finnish model can be regarded as school-based VET (cf. Virolainen & Stenström, 2014). This means that the teachers and students in vocational schools form a key social environment (Conway, Brazil & Losurdo, 2012). Furthermore, learning is more directed by others, e.g. teachers, whereas apprentices are supposed to actively and intentionally engage in appropriating activities in their work (Billett, 2016). Nevertheless, the Finnish VET model emphasises a strong connection with work-based learning and incorporates several on-the-job learning periods, forming social environments of other kinds. Because of this strong connection to the world of work, first-year students gain early experience with the realities of their career choices.

According to Blustein (2011), most career choice and development theories have traditionally been rooted in an individualistic ethos, based on the assumption that an individual's work-based plans and career choices are relatively isolated from other people in their lives and communities. In turn, he capsulises the current perceptions in line with other scholars (e.g. Greenhaus & Parasuraman, 1999; Schultheiss, 2007), and he suggests that the career choice and development processes are 'rarely unpacked from one's proximal relational and distal community contexts' (Blustein, 2011, p. 2).

The relational theory of working, according to Blustein (2011), provides a framework for understanding ways in which working is embedded both in external and internal relational contexts. Therefore, by viewing working as a relational act, it highlights that each decision, experience and interaction with the working world is influenced and shaped by relationships (cf. Blustein, 2011;

Flum, 2001). Though individuals have unique career decision-making processes that comprise personality-related and situational characteristics, young adults usually rely on the support from people close to them (Vertsberger & Gati, 2015). Keller and Whiston (2008) noticed that for young adolescents, parents' interest in and support of their career questions and plans were more facilitative of their career development than simply providing straightforward information about specific careers. Ginevra, Nota and Ferrari (2015) outlined the ability of young people to exercise personal agency concerning their futures. In their study, parental support helped adolescents imagine future success scenarios and positive outcomes and to feel that their choices were considered, respected and sustainable.

In this study, we are interested in the student engagement of Finnish first-year students in VET. We assume, in line with the relational theory of working (Blustein, 2011), that it is constructed in various social environments. The current study focuses on a period when students are exploring their career choices at the beginning of education. We address the following research questions:

1. How is the student's certainty about his/her career choice related to student engagement?
2. How is the social environment related to student engagement?

Social environment facilitating student engagement

The concept of student engagement can be described as an umbrella that connects a broad range of research (Fredricks, Blumenfeld & Paris, 2004). In brief, engagement refers to the time and effort the student devotes to studying both in and outside the classroom (Kuh, 2003). It is related to a wider commitment and an investment in learning and school life, higher achievement and school completion (Appleton, Christenson & Furlong, 2008). Student engagement is often conceptualised in three dimensions: behavioural, cognitive and emotional. Behavioural engagement refers to participation and involvement in academic, social and extracurricular activities. Emotional engagement encompasses reactions to teachers, classmates, academics, and school. Cognitive engagement involves the effort to comprehend complex ideas and master difficult skills. (Fredricks et al., 2004.)

A recent discussion has pointed out that the above-mentioned conceptualisation emphasises individual aspects of engagement (Jonasson, 2012; Leach, 2016). Current studies emphasise the more dynamic, contextualised and collective aspect of student engagement and criticise the idea of engagement being a student's personal and stable feature (Lawson & Lawson, 2013). One should consider engagement as something that evolves through active cooperation between students and teachers (Nielsen, 2016).

Accordingly, many scholars have suggested that the dimensions of engagement should be extended. Fredricks, Wang, Linn, Hofkens, Sung, Parr and Allerton (2016) suggested that social engagement should be the fourth dimension, whereas Reeve and Tseng (2011) proposed agency as the fourth aspect. They considered agentic engagement to be the student's own contribution to the flow of the instruction by, for example, personalising it. Lawson and Lawson (2013) combine student agency, the social environment and the organisational structures of school into their broad view of engagement. Even though the research of engagement seems to be moving towards greater consideration of the social environment, this does not mean that one should forget the student's own contribution to the subject. The social environment may foster and support engagement, but students' own decisions and investment are still significant (Kahn, 2014; Lefever, 2012).

Finn (1989) explored student engagement from another point of view. He presented a participation-identification model when discussing the dropout process. The model underlines the process of engagement rather than dimensions and parts of it and thus addresses the concept as a whole. Participation in school practices reinforces a student's sense of belonging to school and promotes a student's sense of identification with school, which, in turn, increases further participation. At the basic level, participation continues if the student is able to learn and s/he gains at least some academic success. Finn describes the model as a developmental cycle. The participation-identification model acknowledges that some students may lack encouragement at home; thus, may be predisposed to nonparticipation and nonidentification.

A notable part of research of student engagement in the VET context (e.g. Jonasson, 2012; van Uden, Ritzen & Pieters, 2014) has focused on interactions between students and teachers. Jonasson (2012) discussed the divergent perceptions of student engagement between vocational education students and their teachers. The teachers expected vocational pride to develop as a consequence of learning and active participation in school activities. Instead, the students were, for example, socialising with each other rather than paying attention to instructions. As a result, the teachers surmised that the students were not interested because they were not behaving according to teachers' expectations. Jonasson proposes that one perception of engagement may hinder the recognition of other perceptions of engagement.

Elffers, Oort and Karsten (2012) noticed the strong influence of students' school experiences on emotional engagement. A good relationship with classmates was especially important for younger students and students with less educated parents. A notable portion of students did not know their parents' educational level, and they were less emotionally engaged. This suggests that sharing educational experiences may be rare in those families (Elffers et al., 2012).

Nielsen (2016) reported that many vocational education students found it difficult to integrate their activities in other settings with their school activities. He concluded that dropout prevention programmes should offer students support and concrete help that will enable them to integrate activities outside the school context with activities in the educational institution. However, Elffers et al. (2012) pointed out that students considered their school primarily as a place for learning and, thus, need more than just social or emotional support to succeed in school.

This study focuses on students' thoughts and perceptions of the social environment during a time when they are exploring their career choices.

Data collection and analysis

A mixed-methods approach was chosen to provide a fuller picture both in breadth and depth. Due to the scarcity of engagement research in vocational education in Finland, study 1 was a quantitative survey. The purpose was to examine students' certainty about their career choices, how they experienced the social environment in VET, and the relationship of these factors to student engagement.

Study 2 was a qualitative study that included student interviews. The purpose was to capture the voices of actual young students. According to Aarkrog, Wahlgren, Larsen, Mariager-Anderson and Gottlieb (2018), seemingly trivial matters can influence students' thoughts and decision making. These cannot be detected by a survey. Thus, interviews complemented and enriched the survey results in both research questions. Both studies were part of a larger longitudinal study of student engagement in vocational education in Finland.

Study 1

A questionnaire was developed to suit the research questions and the participants. Despite the extensive research attention to engagement, no widely accepted questionnaire for measuring engagement (van Uden et al., 2014) exists. In this study, the items were inspired by previous research literature and by a group interview with four students from a vocational institution. The questionnaire was subject to a pilot study in which a group of first-year vocational students filled in the questionnaire and provided feedback on, for example, the understandability of the items. There were 80 items in the final version of the questionnaire. Most of them were scored on a 4-point Likert-type scale (from strongly disagree to strongly agree). Some background variables, such as gender and age, were asked at the end of the form. This paper focuses on items regarding students' career choices, their perceptions of the social environment in the vocational institution, and the number of adult contacts in the students' personal lives.

Two Finnish vocational institutions from separate cities participated in the study. Both offered education in several sectors, including business and administration, metalwork and machinery, and social studies and welfare. The first-

year students in these three sectors answered the questionnaire. The aim was not to compare different sectors but simply to gain participants from diverse fields. The data was collected between November 2016 and January 2017, meaning that the students had been studying in vocational education for 3–5 months. There were officially 630 students in these sectors, but over 100 were absent during the days the data collection was conducted. Altogether, 396 students answered the questionnaire, which was about 75% of the present students. As this study focuses on young students' engagement, it concentrates only on respondents between the ages of 15–17 (N=364). Information on the respondents is presented in Table 1.

Table 1. Respondents' field of study and gender (N=364).

Field of study	n	Percentage	**Gender**	n	Percentage
Social and welfare	193	53%	Female	218	60%
Business and administration	131	36%	Male	142	39%
Metalwork and machinery	40	11%	Does not want to state gender	4	1%

The IBM SPSS version 23.0 was used for the statistical analyses. The data was used without inputting the missing data. The Likert-type scales were analysed as ordinal measurement scales. Given the non-normal distribution of most of the scales, non-parametric tests that do not require the assumption of normal distributions were used. The analyses proceeded as follows. Firstly, the suitability of the data for factor analysis was assessed. The correlation matrix revealed several coefficients of 0.3 and above. The Kaiser-Meyer-Olkin (KMO) measure of sampling adequacy value was 0.87, exceeding the recommended value of 0.5 and the Bartlett's test of Sphericity reached statistical significance ($p < .000$; Davis, 2013, p. 147). Thus, a factor analysis (EFA) was conducted to distinguish the different dimensions of student engagement. For extraction, generalised least squares (GLS) was used as it is robust with non-normal distribution. Direct Oblim Delta rotation (Delta -0.5), which allows factors to have some level of correlation, was used (Fabrigar & Wegener, 2012, pp. 125–139; Nummenmaa, 2004, p. 345). A four-factor model explained 42% of the total variance, with all components' eigenvalues exceeding 1.0 (cf. Fabrigar & Wegener, 2012, p. 56): thus, it was chosen

based on earlier literature, partly in line with Finn's (1989) participation-identification model. Factor loadings were 0.3–0.9.

Secondly, four scales were built. Their reliability was tested by using a coefficient alpha (Cronbach's alpha). The levels of alpha were 0.57–0.66. Although a rather common presumption is that an alpha level of 0.70 is adequate, it should not be considered as a solid rule, and lower reliability may also be accepted (Knapp & Brown, 1995; Schmitt, 1996). A small number of items in a scale could partly explain low alpha levels. Nevertheless, short length does not alleviate the problems of reliability (Schmitt, 1996), and moderate alpha levels should be considered.

Study 2

In the questionnaire, the students had the opportunity to indicate if they were willing to participate in the interviews. Based on the following criteria, 17 students were interviewed. All students were from one city so that the interviews could be conducted smoothly according to the students' schedules (for example, during their lunch breaks). The students were both male and female, aged 15–17, and represented all three aforementioned subject areas in the study. We focused on students who were studying on campuses other than where the first author works. The students marked the questionnaire on a scale from 0 to 10 to indicate how certain they felt about their vocational selection at the time when their vocational education started. The students who participated in the interviews used the whole scale. Semi-structured interviews, lasting from 20–45 minutes, were conducted in April and May 2017. Seven were individual interviews, while five interviews featured two students. The themes covered in the interviews included career choice, learning activities and the environment in vocational education, received support in and outside school and future plans. Some of the topics arose from the results of the quantitative data. All interviews were recorded and transcribed.

The qualitative data were analysed using thematic analysis inspired by Braun and Clarke's (2006) model. The themes were identified at an explicit level, meaning that the aim was not to look for anything beyond what the student had said. Firstly, the data were transcribed, resulting in 100 pages of text (Arial 12 points, single line spacing), and read through several times. Secondly, the data were coded based on the research interest 'How is the engagement of first-year students constructed?' Atlas.ti version 8.0 was used for the coding. The patterns of data were identified without imposing predetermined categories.

Thirdly, the codes were grouped into potential themes. In this phase, it was noticed that a significant part of the coded extracts of the data were expressions of different emotions. The feeling of 'being unsure' was repeatedly manifested. Six preliminary themes were identified. After that, the preliminary themes were compared with the entire data set, and a thematic map was drawn. Finally, two

main themes and their sub-themes were identified. The significance of a theme was not based on 'size' but on whether it captured something important, for example a different or complementary point of view or reason for student's experience, in relation to the research question (cf. Braun & Clarke, 2006).

Ethical considerations

Written consent was obtained from the students' parents in addition to that of the institution. The questionnaires were completed in a classroom setting. The first author was present in the classroom with the teacher. Therefore, students who were not participating in the study could continue their normal schoolwork with the teacher. In this way, the students' voluntary participation was respected. All interviews started with the question 'Would you tell me about your first year in this school?' The purpose of this opening question was to express that there was no wrong or right answer expected, but that the students' own opinions and experiences were valued. For the interviews, students from the first author's own campus were excluded due to ethical reasons. Teräs (2017) argued that a dual role as teacher/researcher may be problematic as such a position can make a person blind to something that is noticeable to outsiders. Two different vocational institutions and several campus sites participated in this study.

Results

Here we present the findings from the quantitative and qualitative parts of the study. The quantitative results are discussed through four dimensions of engagement. Then, the qualitative results are discussed in order to deepen understanding of student engagement and certainty about career choice.

Manifestations and scales of the social environment and engagement

In general, 84% of the respondents thought that in the classroom everyone receives instructions and is allowed to participate. The majority (71%) reported that student cooperation and learning together are supported. However, only 61% of students thought that active participation in the classroom was expected of them.

In this data, items addressing participation and active agency loaded at the same factor. That scale was named *Active effort,* following Finn's (1989) suggestion that participation can evolve from simply responding to directions to more active manifestations, such as questioning or initiating a dialogue with the teacher. The second scale included items about being accepted in class and not feeling lonely during the school day. This scale was named *Sense of belonging*. The third scale included items related to interactions with the teachers, and it was named *Reciprocal relationship with teachers*. Lastly, one factor indicated the *Social interaction* of engagement and included items about interactions with the learning

community. Table 2 presents the scales and their descriptions. Finally, the relationships between different aspects of the social environment and student engagement were analysed with cross-tabulation and chi-square analysis, the Mann-Whitney U-test and the Kruskal-Wallis test.

Table 2. Scales and their descriptions. A four point (1–4) Likert-type scale was used.

Scale	N	n items	M	SD	Cronbach's alpha	Example of item
Active effort	364	6	2.98	0.43	0.66	I prepare well for the class
Sense of belonging	364	3	3.34	0.53	0.57	In the class I am accepted as I am
Reciprocal relationship with teachers	364	5	2.99	0.41	0.65	It is possible to negotiate with teachers
Social interaction	364	3	3.06	0.50	0.60	I talk with classmates about school and learning

The social environment and certainty about career choice promoting student engagement

A slight majority (56%) of students thought that friends encouraged learning. The perceived support from friends enhanced all dimensions of engagement in this data: active effort (U=3289, p=0.001), sense of belonging (U=4018, p=0.028), reciprocal relationship with teachers (U=3771, p=0.002) and social interaction (U=2600, p=0.000).

Many respondents appeared to have found the item 'Teachers understand what it is like to be a youngster of my age' difficult to answer, since 45% of the students selected 'I don't know' as an option. However, 43% agreed with the item. Agreement with the statement supported active effort (U=2486, p=0.001) and reciprocal relationship with teachers (U=1995, p=0.000).

Students marked the questionnaire on a scale from 0 to 10, indicating how sure they felt about their career choice at the time their vocational education started. The respondents used the whole scale, but 54 % (n=195) had selected 9 or 10. Answers were coded into three categories: unsure (values 0–6, n=35), fairly sure (values 7–8, n=128) and fully sure (values 9–10, n=195). Those who were more convinced about the choice they had made ranked higher in active effort ($\chi 2$=26.2, df=2, p=0.000) and reciprocal relationship with teachers ($\chi 2$=15.7, df=2,

p=0.000). However, this data did not indicate any relationship with a sense of belonging, which suggests that being unsure of one's career choice does not automatically make a student detached in VET.

Social environment hampering student engagement

Vocational education institutions are rather large in Finland, compared to local comprehensive schools. Class sizes varied from 10 to 31 students. Class size was also divided into three categories: small classes (10-22 students, n=116), medium classes (23–25 students, n=125) and large classes (26–31 students, n=113). This data showed no significant effect of class size on student engagement, but the results established some interesting variations. The rankings for active effort, reciprocal relationship with teachers and social interaction were lowest in the largest classes while sense of belonging increased there. This indicates that although it may be more difficult to establish reciprocal relationships with teachers in large classes, it may be easier to find companions.

Some students (15%) agreed with the item 'In this school, I have to be more adult than I actually am', which decreased active effort (U=4152, p=0.006). Furthermore, those students who agreed with this item also found it difficult to combine school and personal life (U=2333, p=0.000).

One item concerned students' contact with adults. Students were asked to indicate how many adults they were in contact with during a typical week, excluding teachers. The answers ranged from 0 to 50. About 12% (n=43) of students were in contact with less than three (0–2) adults per week. Compared to those who had contact with three or more adults, this group had lower rankings in all dimensions of engagement, significantly in active effort (U=5119, p=0.004) and reciprocal relationship with teachers (U=5074, p=0.024). Nonetheless, this data does not indicate that students with less adult contact were more likely to consider quitting the school.

Among those students who had less contact with adults, 38% thought that they must behave more adult-like in school than they actually were. Among those who had more adult contact, only 12% agreed with the item, indicating a significant difference ($\chi 2=5.85$, df=1, p=0.016).

Individual and institutional perspective of student engagement

According to the thematic analysis of the qualitative data, the student engagement of a young vocational student was classified into two main themes. The first and the salient theme was *student's increasing certainty*. It consisted of five subthemes as follows:

- Finding one's own interest.
- Believing in one's own abilities.
- Being part of a group.

- Coping.
- The challenges of maturity and the future.

The second theme was *teaching and the organisation of schooling,* which consisted of two opposing sub-themes:

- Teaching and the organisation of schooling promoting learning and active participation.
- Teaching and the organisation of schooling hampering learning and active participation.

Each sub-theme is discussed individually in the following sections.

Finding one's own interest

The qualitative data amplify the variety of the students' starting points. Some students stated that they chose their field because it 'sounded nice'. Others stated that they were not too excited about the field, but a guidance counsellor at the comprehensive school had strongly suggested it to them. Some oscillated regarding their decision well into the spring of their first year. The choice of the place of study after comprehensive school is likely to be the first major decision made by the student, and its far-reaching effects were well-known:

> … I was so anxious about the on-the-job learning period. What if I can't do anything? What if working there doesn't fit me? What if I don't like it? Do I then want to do it for the rest of my life? (Interviewee 16)

For some students, it had been clear for years that they wanted to study exactly that field. In the present study, many students reported that a parent or other relative worked in the same field. Therefore, they had prior information about the field and the opportunity to engage in professional discussions. The feeling of being in a suitable field was enhanced when studying was interesting, and the learning activities fitted the student, as in the following example:

> Trade services, sales and customer relationship management by this one teacher is just what I like. There are field tasks, there are topics I know a lot about, a lot of work and entrepreneurship-related topics. I want to be an entrepreneur someday so, it feels like, this is the right place for me. (Interviewee 2)

As Meijers, Kuijpers and Gundy (2013) noticed among vocational education students, students' career identities were related to learning motivation and to the experienced fit of the study choice.

Believing in one's own abilities

In relation to research question 1, the data show that the student's certainty about a career choice is not only a question of like or interest. In addition, the students reported that they had thought about the sufficiency of their own abilities before

their career choice, and some continued to ponder this during the first year of education. They actively sought assurance on their perception of their abilities from parents, fellow students and teachers. By using different teaching methods and demonstrating different ways to learn, teachers can support students' beliefs in their own abilities.

> Here you can use your skills, for example, in the form of speech. I really like to talk, if it hasn't become clear in this unbridled talk. Here you can do your tasks in a variety of ways and find your own style in the process. (Interviewee 7)

Many students said that studying was, at its best, easy and fun. There were strong emotional states connected with learning, with mastering something, and with the sense of being unskilled. Students are sensitive to occurrences at school, even those that might be perceived as trivial (Aarkrog et al., 2018). The following quote illustrates this sensitivity:

> Teachers may not realize that we are practising for the first time. So, they are a bit frustrated, they let out sighs like 'What again?'. So, it's a bit uncomfortable at times when you do not know and someone comes to breathe next to you. And I just can't help it. (Interviewee 5)

Also, Louw (2013) observed that when beginning vocational education, it may be difficult for students to follow long explanations and instructions about practical tasks. These findings support the view of van Uden et al. (2014), who reported that perceived interpersonal teacher behaviour was the most important predictor of student engagement. Interpersonal teacher behaviour is part of the students' experiences during class, and it induces various emotions in students. Van Uden et al. (2014) suggested that teachers should improve their behaviour so that students would perceive them as more cooperative.

Being part of a group

A recurring issue was making friends and being part of a group. It is good to keep in mind that adolescents' social skills are still developing, and there is a clear distinction between classmates and friends in school. In relation to research question 2, this sub-theme provides insight into various relationships between the social environment and student engagement. Students spoke openly about insecurity. They were uneasy about being alone during lunch breaks or not finding a partner when doing paired or group work. School days were considered challenging without friends. After finding friends at a new school, they were occasionally mentioned as a reason for coming to school. If someone was not present in the morning, friends called or texted for him/her to wake up and come to school. Friends helped each other with studying or, for example, offered encouragement for students resitting exams. Furthermore, co-operating with a friend prompted studying and eased the sense of inadequacy:

> If you have some unfinished tasks, it is easy to do with a friend. Because usually, if you haven't done something, it means that you can't do it by yourself or you don't know how. So, it's easy to do with a friend, because then you like have to do it. (Interviewee 13)

This is consistent with research reported by Jelas, Azman, Zulnaidi and Ahmad (2016), which identified the perception that there are friends whom one can turn to and share experiences with as a positive factor for cognitive engagement and academic achievement.

Coping

For some students, vocational studies were more demanding than expected. The school days were often long. Even though students study much by doing, learning by doing is still hard work and requires concentration and energy. Some students reported being tearful, irritable, exhausted and/or experiencing sleep problems:

> I had a hobby so I didn't have any time. There was time to go to school but no spare time to invest in studying. I couldn't do anything at school, because I didn't sleep at nights and so on. So, I was too tired to do anything here and my motivation dropped. (Interviewee 9)

According to participants, young people must balance the requirements of studying, hobbies, friendships and other relationships. The time of adolescence is not necessarily easy or carefree. Many of the students interviewed emphasised their own responsibility in schooling, but they also acknowledged their parents' care, encouragement and interest as factors supporting coping:

> In the winter, I was really exhausted with school. I thought that I just couldn't keep up anymore. And so, there was this pep talk (*from parents*) that you will thank yourself when you are older that you just went through it. (Interviewee 16)

The present results show that students worried about their coping abilities and experiences of inadequacy during their first year at vocational school. This is aligned with the previous findings by Salmela-Aro, Kiuru and Nurmi (2008). They found that among Finnish adolescents, students in vocational education experienced high levels of inadequacy, which decreased significantly over time. Some students also experienced school burnout, but there were fewer of these on the vocational track compared with the academic track.

Challenges of maturity and the future

Vocational education aims to prepare students to enter the world of work. Many students were looking forward to the transition to work after studying. A good certificate was believed to help job prospects, which, in turn, motivated students to study. According to Castejon (2011, pp. 17–21), vocational qualification refers

to achieving learning outcomes to given standards. On their way to achieve vocational qualifications, students reviewed the requirements of a profession more widely. They were conscious that a different rhythm of life awaited them in the working world:

> It's *(entering working life)* a bit scary, but I'm also looking forward to it. So that I get to see it. Because there are these given times when you are at school, but you can go to work at two and get out at ten. So, I am looking forward to it, but then again, you should find the right rhythm. You can have a night shift, an evening shift and a morning shift and you have to learn to go with it. (Interviewee 16)

In Finland, vocational qualifications provide eligibility for higher education, which was recognised as several students planned to continue their studies in higher education, either directly or after a few years of work.

The challenges of the future, in terms of considering maturity and independence, were well-known. Though the social status gained from qualifications is powerful in shaping personal identity and the life opportunities it offers (Castejon, 2011, pp. 17–21), many students acknowledged that they needed support from their parents in various areas of life. The positive effects of parental support were reported by, for example, Parker and Benson (2004), who suggest that supportive relationships provide adolescents with a coherent schema that allows for judicious exploration of the environment and avoidance of its dangerous aspects.

Teaching and the organisation of schooling promoting learning and active participation

The students did not indicate an unwillingness to learn or study. However, many shared the idea that the studying and learning methods found in comprehensive school did not fit them:

> In comprehensive school, it was expected that everybody would be similar. That all are good and able, basically the same. Here, they don't expect that. Every teacher will view what you're like. (Interviewee 10)

The different learning activities in vocational education provide the opportunity to find one's own way to learn. The use of various teaching methods requires the teacher to be able to use different methods and to guide learning in different ways.

> Teachers have asked what the best way is for us to learn. Lately, we have worked a lot in groups. We are divided into small groups and study in different ways. So, that's because we said that we like to work in groups, and we study quite independently, and at the end, we go things through with the teacher. (Interviewee 13)

During the first year, the students had to learn to balance freedom and responsibility. Unfinished and delayed tasks had accumulated for some students. This

situation could prompt the student to perform and finish tasks. For many students, the on-the-job learning period not only helped them to ascertain their choice of career but also provided them with an important motivation to study:

> After the on-the-job learning period, I realised how important it is to study. Before that, I thought that it's just boring. (Interviewee 14)

The on-the-job learning period is not just for learning to use skills in practice. Also, Meijers et al. (2013) indicated that a career dialogue at the school or in the workplace can contribute to career identity development and learning motivation.

Teaching and the organisation of schooling hampering learning and participation

This sub-theme provides insight into various relationships between the social environment, some of which might be perceived as minor (cf. Aarkrog et al., 2018), and student engagement in relation to research question 2. Many students reported that they had previously studied in much smaller classes than were found in vocational education. Adapting to large groups may take time; in a large class, students felt that they had to wait longer for their turn or that it was harder to get the teacher's attention. The instructions given by the teacher at a general level could be easily ignored. Sometimes classes were combined or otherwise switched in the middle of the first year. The students had to get used to the new group and new teachers. Some newly-built friendships broke down. The ability of young people to self-direct is emergent, and adolescents cannot always respond adequately to these situations. Students experience situations as frustrating and are not always able to solve them in the best possible way:

> It is so annoying because we have people in the class who don't know how to keep their mouth shut. They just make noise. I left in the middle of the last lesson because I was so irritated. There was such a brawl, I got distressed, so I just scrammed. (Interviewee 4)

Indeed, Lefever (2012) noted that poorly behaving students' actions may contribute to others feeling disengaged or that they don't belong to the same space.

The long school days, besides causing some uncertainty about coping, also reduce the students' motivation and attitude toward the school day. Some thought that the learning pace impedes the development of the student's own active role:

> It would perhaps be better if there were fewer students in the class. Then maybe you would have more time to ask the teacher. I feel that the pace is so fast that you don't necessarily have time to ask when there is something on your mind. (Interviewee 14)

Vocational education institutions are large. The focus of activities may not always be on student's learning but also on the functioning of the organisation, and it

does not always seem purpose-built from a student's perspective. If, for example, a school day ended before the beginning of remedial instruction, the waiting was considered pointless. The pauses were not used for studying but were considered useless:

> It would be nice to know that if you have passed something then there is no need to come. But they never tell you that. Sometimes we have a three-hour break, but then I just leave school. I won't wait here. (Interviewee 1)

Discussion

This study sought to explore student engagement at the start of vocational education. Firstly, we wanted to assess how the level of certainty a student has about his/her career choice is related to student engagement. Students who were more confident about their career choice ranked higher in terms of active effort and reciprocal relationships with teachers and, therefore, may receive more attention from their teachers. Thus, it might be beneficial at the beginning of studies to take particular notice of quieter students, bearing in mind the proposals of Nielsen (2016) and Lippke and Wegener (2014) that engagement develops every day in active cooperation between students and teachers. Moreover, Xerri et al. (2018) concluded that better teacher-student relationships lead to lower perceptions of workload as students ask more questions and obtain more feedback. However, this data showed no relationship between a sense of belonging and students' certainty about their career choices. Thus, being unsure of one's career choices does not automatically make one feel like an outsider in VET.

The uncertainty regarding career choices that emerged in the quantitative data appeared even more complex in the qualitative material. The findings show the extent of students' uncertainty. It is not just a question of 'Do I like this?'. It also involves questions like 'Am I up to this?' and 'Do I want to do this for the rest of my life?' Students sought assurance for their career choices and coping abilities in several social environments, which leads us to the second research question. How is the social environment related to student engagement?

This study supports the findings of previous research (Elffers et al., 2012; Li, Lynch, Kalvin, Liu & Lerner, 2011), which shows a strong connection between peer support and student engagement. Perceived support from friends influenced all dimensions of engagement in this study. Li et al. (2011) noted that peer support appears to become more important as adolescents get older.

The present study offers a new perspective as a significant observation in this research was the connection between adult contact and student engagement. About 12% of the students were in contact with fewer than three adults in a week. These students ranked significantly lower in terms of active effort and reciprocal relationship with teachers. As Lawson and Lawson (2013) suggested, students' engagements in other social settings may influence their engagement in school.

One might expect that students with limited adult contact would try to benefit from connections in school, but this does not seem to be so simple (cf. Elffers, 2013). Also, those students who had less contact with adults often felt that they must behave more adult-like in school than they actually are. It might be the case that, as vocational education and training are so clearly connected to working life, those students with limited adult contact also possess limited information about working life. Alternatively, they may simply have less experience communicating with adults. In the qualitative data from this study, students also discussed the significance of having close adult contacts who support their beliefs in their own abilities.

In relation to the issue of student engagement, the study highlights that individual ways of learning and teachers' abilities to use various teaching methods were appreciated as they promoted students' perceptions of adequacy and capacity.

This study has some limitations. The results of this study might give a more positive picture of student engagement in VET due to the large number of absent students during the data collections. It is likely that those who were more engaged were in school and chose to participate. The social environment of students in this study comprises mainly school and family due to the Finnish school-based model of VET. However, regardless of the country or educational system, the significance of peer support should be recognised. Similarly, students with less adult contact are probably at risk for lower engagement. According to Castejon (2011, pp. 17–21), the social status that arises from a vocational qualification is powerful in shaping personal identity. Thus, it might be that in an apprenticeship, a certain social status is gained earlier as basic skills are learned and co-workers play a more significant role in engagement.

Conclusion

This study used quantitative and qualitative approaches to examine student engagement at the beginning of VET, a period that has been less studied. According to the results, students deal with a variety of feelings of insecurity at the beginning of their studies. In addition, students' engagement and career choices are strengthened by the support and confirmation they receive, the students' interest in their studies, their general abilities and their coping skills. Furthermore, this process continues throughout the first year of studies.

In line with previous research, peer support was an important issue promoting student engagement. Having friends at school diminished feelings of insecurity and co-operating with friends eased the sense of inadequacy. Also, students' contact with adults outside school supports engagement. According to the results, teaching and the organisation of schooling may promote or hamper learning and active participation. Large classes, long days and a fast learning pace were found

to hamper learning and active participation. The heterogeneous group of first-year students benefits from various learning activities, including, for example, group work, oral presentations, field tasks and practical exercises at school and, naturally, actual work during on-the-job learning periods.

Practical implications for VET are to find time for students to share and process these feelings and questions, as students talked openly about these themes in the interviews.

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