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MAKING AN EDUCATIONAL CHOICE – THE CLARITY AND FINALITY OF A CHOICE AND FACTORS INFLUENCING IT FROM THE POINT OF VIEW OF AN UPPER SECONDARY SCHOOL GRADUATE

The purpose of this article is to examine the perceptions of students finishing their upper secondary school studies on making educational choices at a time when the concrete reality of making an educational choice is drawing near, namely the last autumn semester of upper secondary school. How clear and final are educational choices considered in this acute situation? What kinds of factors and information sources appear as significant to students thinking about further education? The article is based on questionnaire data collected by the Research Foundation for Studies and Education Otus in autumn 2011 as a part of the KOUKKU project. The questionnaire was used to collect information on upper secondary school students' plans on applying for further education, their attitudes towards education and the future as well as their ideas on different professions. The questionnaire's participants consisted of upper secondary school students in their final year from ten different schools from different parts of Finland. This included two schools from Helsinki, two from Espoo, four from Turku and two from Oulu. One of the schools was specialised in natural sciences and mathematics, and the other nine were general upper secondary schools. The questionnaire was sent to 1,015 students, 607 of whom replied. Thus the response rate was 59.8 per cent. 55.5 per cent of the respondents were women (n=334) and 44.5 per cent were men (n=268).

Clarity and finality of applying for further education

According to Statistics Finland's statistics on entrance to education, 32,700 people graduated from upper secondary schools in 2010, and 77 per cent of them applied for further education (Statistics Finland 2011). Similarly, based on the questionnaire data, further education was a part of the future plans of almost all upper secondary school students, and most of the respondents (77 %) planned to apply for studies directly after graduation. About one fifth (22 %) planned to have a year off before applying for further education. Only eight respondents (1 %) replied that they do not have any plans for further education in the future.

For most respondents, the decision of educational choice had developed during upper secondary school; two thirds (65 %) of the respondents had made their decision to apply for further education during their upper secondary school studies. 14 per cent of the respondents had made their educational choice before starting upper secondary school. However, if one's own interests and plans for the future are still unclear, it is common to postpone the decision to apply for further education as long as possible. In the data, uncertainty on educational choices during the final autumn of upper secondary school was found in one fifth (21 %) of the respondents. These respondents planned to make their decision only when applying for further education. However, the unclarity of educational choice as the time to make decisions approaches is not uncommon; for example, Vuorinen and Valkonen (2005), in their research on applying for higher education, beginning studies and the permanence of educational choices, note that the respondents had commonly made their decisions on applying for further education during the last year of secondary school studies or only after graduation (Vuorinen & Valkonen 2005, 24).

In their research, Vuorinen and Valkonen (2005) state that, even if there is no clarity of educational choice after finishing secondary school and career choices are still forming, the goal of further education is clear for many, and this is not compromised on (Vuorinen & Valkonen 2005, 66). In this data, the choice on the level of education was clear to nine out of ten respondents. Of the upper secondary school graduates who filled in the questionnaire, almost two thirds (63 %) aimed primarily at universities. About one fourth (24 %) aimed primarily at polytechnics. Only very few, three per cent, of the respondents told that they would only apply for vocational training. 11 per cent of the respondents could not say during the autumn preceding application which level of education they were going to apply for.

In figure 1, the educational levels primarily aimed at are illustrated. Among the respondents, the most popular fields were economic sciences (18 %), technology (13 %), medicine (13 %) and pharmacy (10 %). The primary fields of study for respondents applying for vocational training were enquired for with an open question, and the responses (n=12) mentioned social, health, sports, technology and traffic, tourism, catering, economics, business and administration. Additionally, there was interest in the profession of police officer (Police College of Finland). In figure 1, the interest in different fields can also be examined by gender. Some fields in the data are clearly divided by gender, the clearest of which is the traditional view of the field of technology; four per cent of women and 24 per cent of men were primarily going to apply for the technological field. Men were also more interested in natural sciences. Among female respondents, the most popular fields were social, health and sports, medicine, education as well as arts and culture.

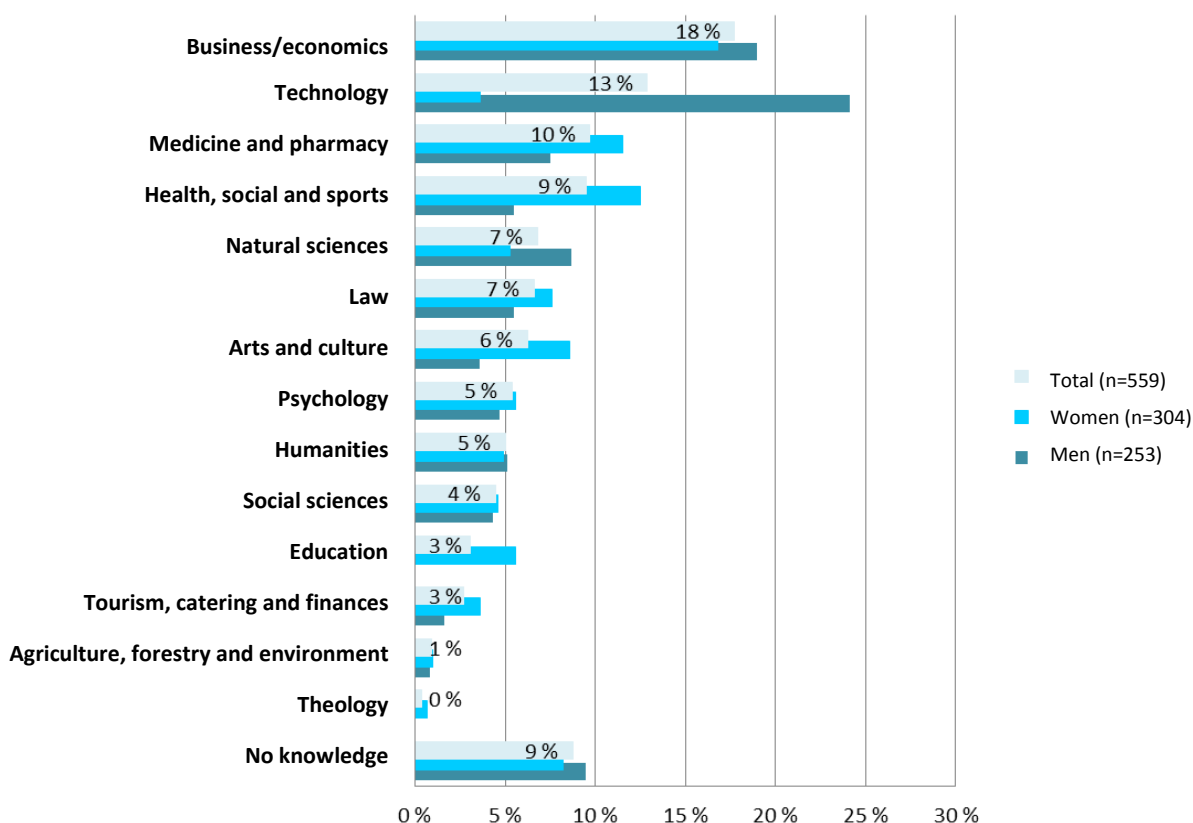


Figure 1. The division into different fields of polytechnics and universities of the respondents (Which field would you primarily want to study?).

When asked about the decision-making process relating to their educational choices, it can be seen how much variation upper secondary school students have in their preparedness for further studies during

the autumn preceding application. When examining the certainty of educational choices, a little over half (54 %) of the respondents answered that they were certain of what they wanted to study in the future. About one fourth (26 %) of the respondents felt that their educational choices were still uncertain at this point.¹ Almost half (43 %) of the respondents felt that they had options from which it was difficult to choose, whereas one third (33 %) said that having many options did not cause a problem to them.²

When comparing the view of women and men on the certainty of educational choices³ it can be noted that men are slightly more certain of what they want to study in the future⁴. Over half of both women and men have clear plans for their future studies, but men are slightly more certain of their decisions than women (56 % vs. 52 %). Almost one third (31 %) of the women were still uncertain of what they wanted to study, whereas one fifth (20 %) of men were uncertain. In the study by Vuorinen and Valkonen (2005), women were more certain of their educational choices than men – on the other hand, the researchers noted that gender does not explain certainty in educational choices as such, but certainty is more closely connected to the field applied for. In their data, too, the fields of economic sciences and medicine seemed to be the fields where the applicants were the most certain of their educational choices, whereas students applying for technological studies were less certain of their choice (Vuorinen & Valkonen 2005, 27–28.) In the data for this questionnaire, the technological field is also among the more certain fields; of the respondents certain of their choice⁵, 21 per cent were primarily aiming at economic sciences, 14 per cent at medicine and pharmacy and 13 per cent at technology.

When comparing desired educational levels, it can be noted that those applying for universities were the most certain of their choice⁶. Almost two thirds (64 %) of the students applying for universities knew what they wanted to study in the future. A little under half (47 %) of those applying for polytechnics and a little over half (53 %) of those applying for vocational training were certain of what they wanted to study. Similarly, in the study by Vuorinen and Valkonen (2005), those applying for universities were the most certain of their educational choice (Vuorinen & Valkonen 2005, 25–26).

The idea of the finality of an educational choice can also play a part in finding one's own field. The respondents were asked to evaluate how final they felt their educational choice would be. In the data, the finality of educational choice divided the group quite evenly, although a slight majority did not think of their educational choice as final⁷. One third (34 %) of the respondents considered their educational choice to be final, whereas 40 per cent did not see their choice as final.

¹ The respondents were asked their opinion on the statement *"It is clear to me what I want to study"*. 54 per cent of the respondents agreed or partly agreed, and 26 per cent disagreed or partly disagreed. 21 per cent chose the neutral option.

² The respondents were asked their opinion on the statement *"I have options from which it is difficult to choose"*. 44 per cent of the respondents agreed or partly agreed, and 44 per cent disagreed or partly disagreed. 23 per cent chose the neutral option.

³ The categories "disagree" and "partly disagree" were combined into one category, as were the categories "agree" and "partly agree". The neutral category "neither agree nor disagree" remained the same. 17 % of women and 24 % of men chose the neutral option.

⁴ When cross-referencing the statistical significances of these connections, the Chi-squared test was used, $\chi^2 = 10.671$, $df=2$, $p=0.005$. The difference between the compared groups was statistically significant.

⁵ Agree or definitely agree with statement *"It is clear to me what I want to study"*, $n=303$

⁶ During the analysis, those respondents that did not know which field they were primarily aiming at were filtered out of the data. According to the Chi-squared test, the difference between the group applying for universities and the group applying for polytechnics was statistically significant, $\chi^2 = 11.347$, $df=2$, $p=0.003$. The group applying for vocational training was left out of the analysis due to the small number of respondents.

⁷ The respondents were asked their opinion on the statement *"Once I have made my educational choice, I consider it final"*. 34 per cent of the respondents agreed or partly agreed, and 40 per cent disagreed or partly disagreed. 26 per cent chose the neutral option.

When examining the views on the finality of educational choices more closely⁸ it can be noted that women see their choices as final less often than men (figure 2)⁹. This difference became apparent for those respondents who disagreed with the statement regarding the finality of educational choice. Almost half of the women did not consider their educational choice final, whereas among men, this was less than one third (46 % vs. 29 %). On the other hand, men had chosen the neutral option more often than women had.

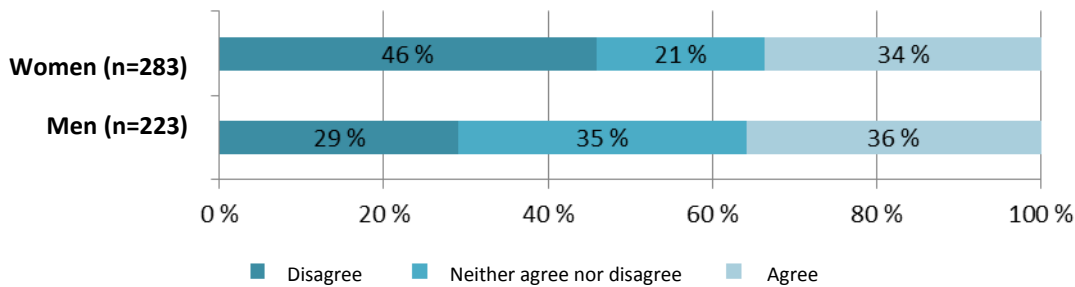


Figure 2. The views of women and men on the finality of educational choice.

Among those applying for different types of further education, it is noteworthy that respondents applying for universities considered their educational choices more final than other respondents did (figure 3). 40 per cent of respondents applying for universities considered their educational choice final, whereas about one fourth of the other respondents were of this opinion. However, it must be noted that about one third (35 %) of those applying for universities did not consider their choice final. Those applying for vocational training were among the least certain of the finality of their educational choice. In the data, however, this group was so small that it could not be included in the testing for statistical significance.¹⁰

⁸ The categories “disagree” and “partly disagree” were combined into one category, as were the categories “agree” and “partly agree”. The neutral category “neither agree nor disagree” remained the same.

⁹ When cross-referencing the statistical significances of these connections, the Chi-squared test was used, $\chi^2 = 19.047$, $df=2$, $p < 0.001$. The difference between the compared groups was statistically significant.

¹⁰ When cross-referencing the statistical significances of these connections, the Chi-squared test was used. The group applying for vocational training was left out of the analysis due to the small number of respondents. The differences between the other groups were statistically significant, $\chi^2 = 14.010$, $df=6$, $p=0.030$.

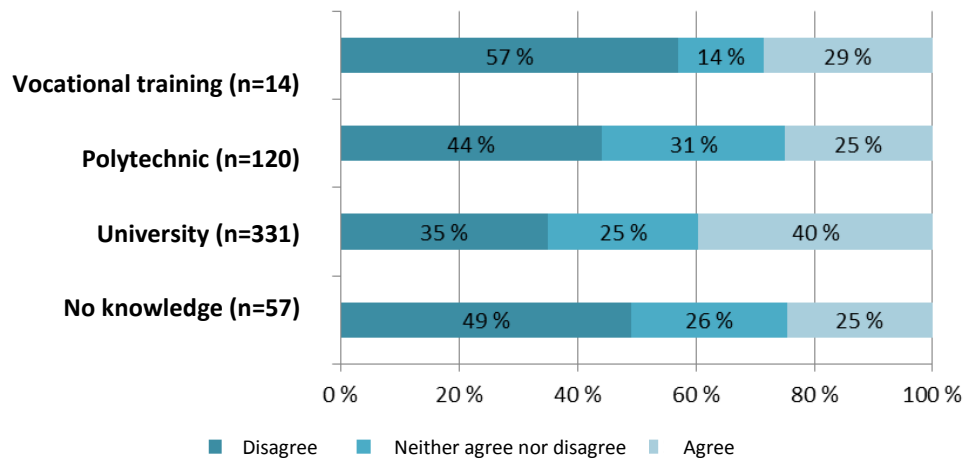


Figure 3. The views of applicants for different fields on the finality of educational choice.

Factors affecting educational choice

In the questionnaire aimed at upper secondary school students in their final year, factors affecting educational choice were mapped using two questions containing 34 sections on factors affecting an upper secondary school student's life¹¹. The information received from the questions was summarised using principal component analysis, which enables the grouping of the different phenomena into the following categories. The content of the principal components was chosen based on statements that the respondents answered similarly¹². Based on the results of the principal component analysis, five variables defining factors affecting educational choice were formed (figure 4): *professional future*, *status*, *educational success*, *information received on education* and *the experiences and opinions of others*.¹³

¹¹ How significant are the following factors in your decision to apply for education? / How significant are the following information sources in the school(s) you chose or are interested in? The questions contained a total of 34 sections, the significance of which on educational choice the respondents evaluated on the scale 1 = not important, 2 = somewhat important, 3 = important and 4 = very important.

¹² 30 variables were included in the solution of five principal components (Kaiser-Meyer-Olkin index value (KMO) 0.847, Bartlett's sphericity test result $p < 0.001$, the solution's rotated total coefficient of determination 57.7 %)

¹³ Cronbach's alphas: information received on education 0.896, the experiences and opinions of others 0.883, status 0.830, educational success 0.735, and professional future 0.623.

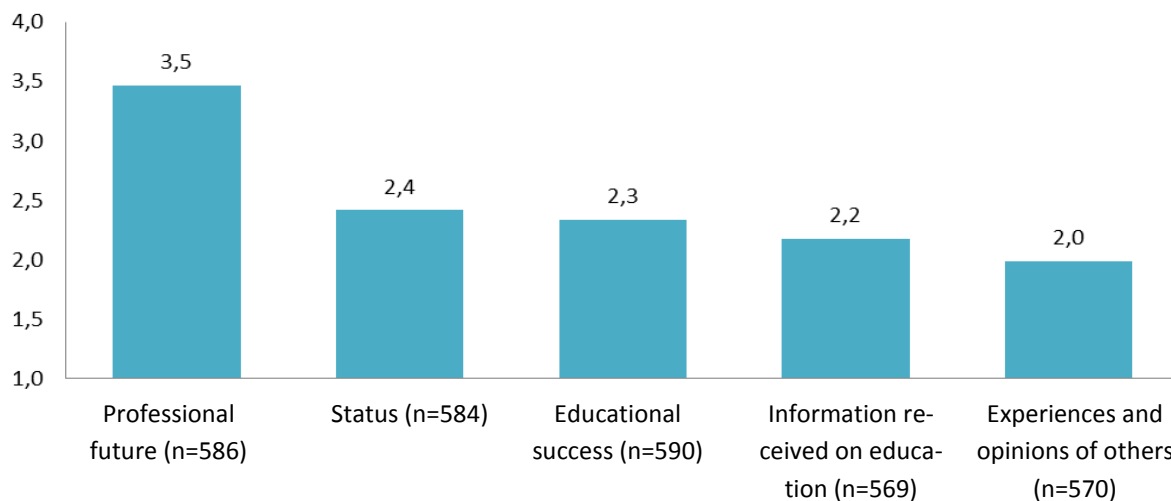


Figure 4. The significance of different factors in the decision-making related to educational choice, the average values of all respondents (1 = not important, 4 = very important).

As expected, interest in the field to be studied and the future profession were the most significant factors affecting the educational choices of upper secondary school students. As can be seen from figure 4, the most important factor affecting educational choice in this data was the *professional future* variable. This variable depicts the importance of interesting tasks, interest in the field, professional qualification and employment possibilities in educational choices. The result is very similar to that in the study of Vuorinen and Valkonen (2003), according to which the three most significant single motives for educational choices for both university and polytechnic applicants were interest in the field, the possibility of interesting work and the possibility to use one's own talent and predispositions (Vuorinen & Valkonen 2003, 75–76).

The differences between the variables depicting other factors affecting educational choices were much more subtle. The second most significant variable was that of status and success. The *status* variable has to do with how significant the applicant considers the status obtained through academic education, the respect of the field or education, the reputation of the educational establishment, the improvement of one's own status and good wages. In the study by Vuorinen and Valkonen (2003), the factors related to status, such as respected education, good job, good wages and possibility of advancement in career were among the most important factors affecting educational choice (Vuorinen & Valkonen 2003, 77–79).

The third most important factor affecting educational choice in the data was the *educational success* variable, which also highlights individuality. This variable has to do with the importance of general educational success as well as that of success in mathematics, physics and chemistry.¹⁴

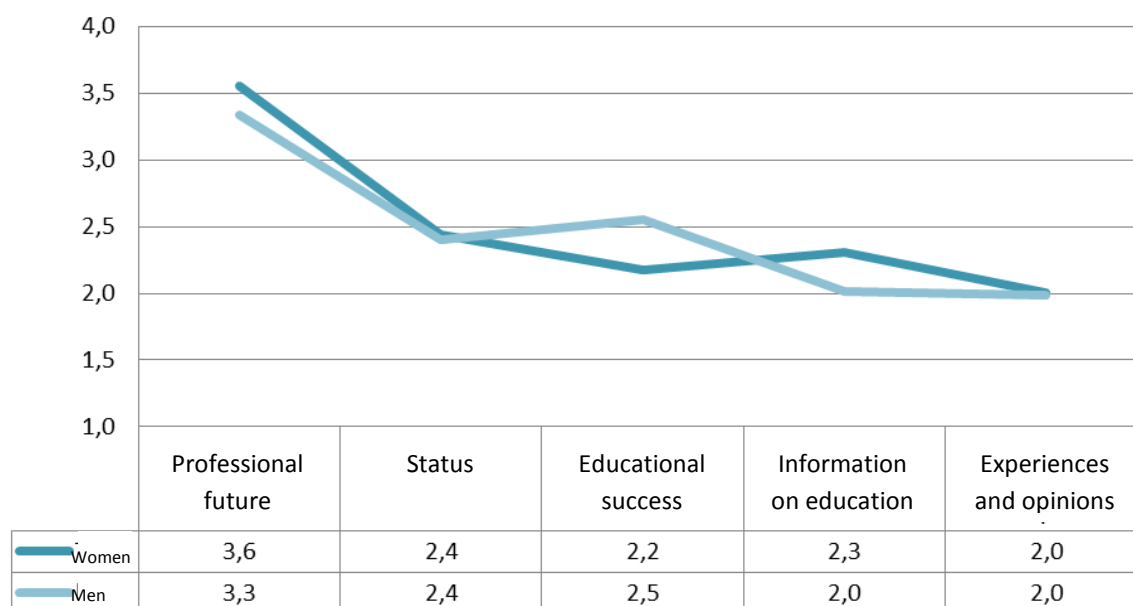
The respondents in this data considered external factors and parties somewhat less significant than the respondent's personal interests and goals. The *information received on education* variable depicts different kinds of formal information sources used as support in making educational choices. Formal information on education can be received from, for example, the school's student counsellor and teachers as well as from previous students studying in the field in question. Additional sources of information include the brochures, study guides and websites of educational establishments, visits to them as well as different kinds of fairs. Even though these formal information sources were not considered as significant

¹⁴ The questionnaire did not provide information on attitudes towards educational success in other specific subjects.

a factor as personal interests, it is important that information on applying and educational establishments is available; for example, Vuorinen and Valkonen (2005) point out in their study that, in retrospect, students often felt that their foreknowledge of the content of education and employment was insufficient (Vuorinen & Valkonen 2005, 136).

According to the questionnaire data, the applicant's friends and family are seen to have the least significance in making educational choices. The *experiences and opinions of others* variable consists of the effect of parents, siblings, relatives and friends on making educational choices. Similarly, according to the results of Vuorinen and Valkonen, education recommended by others or received by family members was considered to be among the least significant factors affecting educational choices (Vuorinen & Valkonen 2003, 77).

When comparing the role of gender in views relating to factors affecting educational choices¹⁵ (figure 5), it seems that women find the professional future and information received on education more important in making educational choices than men do. Vuorinen and Valkonen (2003) also noted a similar difference in tendency between genders in their study. As in this data, women justified their educational choice by interest in the field more often than men did (Vuorinen & Valkonen 2003, 83). In the questionnaire data, men found educational success a significant factor in making educational choices more often than women did. This result is affected by the higher significance that men placed in mathematics, physics and chemistry. With regard to general educational success, there was no difference between the opinions of women and men.¹⁶ With regard to status and the experiences and opinions of others, there was no difference between the opinions of women and men.



¹⁵ According to the t-test, statistical significance between the differing opinions of women and men was found in professional future ($t(497)=5.749$, $p<0.001$), educational success ($t(530)=-5.858$, $p<0.001$) and information received on education ($t(565)=5.591$, $p<0.001$).

¹⁶ According to the t-test, there was also a statistical significance in the difference of opinion between women and men in success in mathematics ($t(589)=-6.190$, $p<0.001$) and physics/chemistry ($t(515)=-6.516$). Average values: mathematics women 2.02 / men 2.53; physics/chemistry women 1.59 / men 2.16.

Figure 5. The significance of different factors affecting educational choice group averages by gender. (1 = not important, 4 = very important).¹⁷

In figure 6, the emphasis on different factors affecting educational choice for applicants in different fields is examined¹⁸. The opinions on the significance of status and educational success are differing. There is a statistically significant difference between those applying for universities and other respondents; respondents applying for universities found status and educational success more important than other respondents did. With regard to professional future, information received on education and the experiences and opinions of others, there was no difference between the opinions of applicants in different fields. In the study by Vuorinen and Valkonen (2003), reasons related to status, such as high level of education and wages and respect in the field, were also considered more important by those applying for universities than those applying for polytechnics (Vuorinen & Valkonen 2003, 78–79).

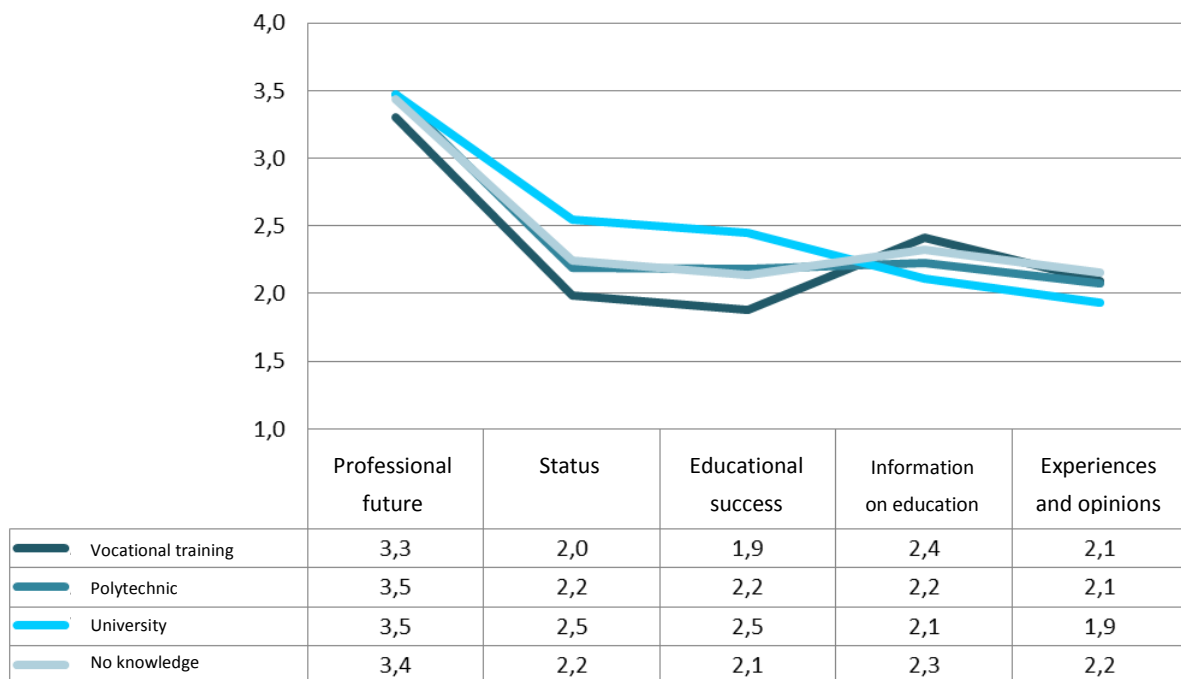


Figure 6. The significance of different factors in the decision-making related to educational choice group averages by field of study (1 = not important, 4 = very important).¹⁹

¹⁷ Women n=318–327, men n=246–261.

¹⁸ The differences between the groups were tested using variance analysis. With regard to professional future, information received on education and the experiences and opinions of others, there was no statistically significant difference between the different groups. With regard to status and educational success, the equality of variances was not assumed, thus the Welch and Brown-Forsythe tests were used, according to which there was a statistical significance between the different groups ($p < 0.001$). Comparison of pairs was carried out using the Games-Howell post hoc test. With regard to the status variable, there was a statistically significant difference between those applying for universities and those applying for polytechnics ($p < 0.001$) as well as those applying for universities and uncertain applicants ($p = 0.002$). With regard to the educational success variable, there was a statistically significant difference between those applying for universities and all other groups (university vs. vocational training $p = 0.021$, university vs. polytechnic $p = 0.002$, university vs. uncertain applicant $p = 0.013$).

¹⁹ Vocational training n=14–15, polytechnic n=130–135, university n=344–357, uncertain n=58–63.

Determined, premeditated and individual choices?

The discussion on extending careers has been lively of late. In addition to raising the pension age, the discussion has included shortening education times and thus moving on to working life more quickly. The goal is also to speed up and streamline the process of moving from secondary school to higher education. Predominant expectations on a quick and efficient transition to further education and subsequently to working life cause stress to many students graduating from upper secondary school in choosing their place of education. One of the respondents of the questionnaire states: "*[it] is too big a risk to make a wrong choice and that the field is not interesting! (47)*"²⁰

Thus, it is interesting to consider how upper secondary school students experience the choices related to their own future.

Upper secondary school students in their final year face a situation where they need to be able to make decisions that can have very far-reaching effects on their lives. During the final autumn of upper secondary school, the students' situations regarding educational choices are still quite varied. Some have been certain of their plans for the future already when beginning their studies, and most make up their mind during the final year. For many upper secondary school students, educational choice appears certain, clear and final, and a certain kind of determination guides their choices. According to the data, university applicants were the most certain of their choice, and they also considered their choice final more often than others did. However, every fifth student in this data was going to leave the decision to when they were going to apply. Postponing the decision on applying enables keeping one's options open for as long as possible, but it can also leave very little time for obtaining information on that place of study and preparing for the application process. For example, in the study by Vuorinen and Valkonen (2005), the studied students had changed their field most often because the applied field had not corresponded with the original expectations – thus the educational choice had been made with insufficient information (Vuorinen & Valkonen 2005, 133–137).

Educational choice is seen as an individual process, where decision-making is primarily seen to be based on personal interests, success and goals. Different external factors are seen as less significant in making educational choices. According to the questionnaire data, the most significant factors affecting educational choices were factors related to personal interests, ambition or success, which can be considered *individual factors affecting choice*. The results gained from this data support Inkinen's (2013) observation that, while the decision is being made, the upper secondary school student sees educational choice primarily as a process originating from oneself (Inkinen 2013). Based on the questionnaire data, *external affecting factors*, in this case formal information and the experiences and opinions of others, were considered less important in making educational choices. However, educational choices are also connected to the wider social and cultural framework, and in this framework, educational choices can be seen as being restrictedly voluntary. In examining choice, the dimension of time is significant when identifying the factors affecting educational choice; for example in the biographical writings used in Vieno's (2013) article, the respondents reflect on their previous educational choices; in addition to their own interests and goals, the students identify several factors and events of the surrounding world that affected their choices (Vieno 2013).

When the situation for making educational choices is acute, the student making the decision can see it merely as a personal project, and thus external information sources or the opinions of others are not seen as important factors affecting educational choice. One's own choice is considered free and individual and on the other hand a lonely task (see Vieno 2013). Is educational choice ideally seen as individual decision-making, where a student should be making individual, far-reaching choices in a determined and

²⁰ This quote is from the open answers of the questionnaire.

conscious manner? What kinds of possibilities does this way of thinking offer for the youth who are uncertain of their plans for the future?

References

- Inkinen, A. (2013) Upper secondary school students' hopes and goals for educational choices. www.koukuun.fi.
- Statistics Finland (2011) Official Statistics of Finland (OSF): Entrance to education [online publication] Helsinki: Statistics Finland [referenced: 19.6.2012]. www.stat.fi/til/khak/index.html
- Vieno, A. (2013) Making your own way – the challenges and solutions of educational choices for upper secondary school graduates. www.koukuun.fi.
- Vuorinen, P. & Valkonen, S. (2003) Ammattikorkeakouluun vai yliopistoon? Korkeakoulutukseen hakeutumisen orientaatiot. Jyväskylän yliopisto. Koulutuksen tutkimuslaitos. Tutkimuslauseita 18.
- Vuorinen, P. & Valkonen, S. (2005) Ammattikorkeakoulu ja yliopisto yksilöllisten koulutustavoitteiden toteuttajina. Jyväskylän yliopisto. Koulutuksen tutkimuslaitos. Tutkimuslauseita 25.