Chapter # 12

THE STUDENT'S ACADEMIC ASPIRATIONS, PREDISPOSITIONS AND EDUCATIONAL SUPPORT

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ABSTRACT

This chapter presents the results of empirical research aiming to classify the students of the research group by their subjective view of their study ambitions and assumptions and analyse the relationship between them. Teachers' and schools' incentives to guide students towards technological thinking and deepen the school's interest in the field of study were examined as elements of academic support. The students' views on both of these variables were related to the perception of their educational aspirations. Academic aspiration expresses the anticipated level of performance or position the students wish to achieve. Study predispositions are a set of knowledge, competencies, cognitive abilities, talents, study ambitions and motivations. The research sample consists of 907 technical secondary school students in the Czech Republic. Descriptive data showed, that more than half of the respondents believe they have suitable prerequisites for studying and aspire to the status of a good student. Only 3% lack these prerequisites and have no ambition to be good students. Studying and perceive school support to deepen their interest in the field. However, educational aspirations are separate from students' opinions about the teacher's efforts to develop technical thinking.

Keywords: academic aspiration, academic predispositions, interest in the study, educational support, technical thinking,

1. INTRODUCTION

The chapter deals with identifying the subjectively perceived level of study aspirations and study prerequisites of the technical secondary school population and determining the value of the intersection of both variables and the statistical relevance of this relationship. The relationships between students' academic aspirations, the teacher's supportive procedures to develop their technical thinking, and the school's supportive activities deepening the students' interest in the field of study are assessed. The investigated constructs are defined in the following text, their importance for educational practice is emphasised, and relevant research findings are presented if found. Empirical research on a more extensive research group makes it possible to consider results as valuable information about the self-reflection of selected psychosocial states of secondary school students, their relationships and their perception of the educational institution's supportive activities. They can thus be helpful for educational theory and practice.

2. EDUCATIONAL ASPIRATIONS

Educational aspiration reflects the educational goals an individual sets for themselves. It is essential as it encourages and energises the individual to achieve them (Fraser & Garg, 2011). However, in the professional community, there is no single and universally accepted definition or joint agreement regarding the term (Quaglia & Cobb, 1996). Oxford Dictionary defines aspiration as the "hope or ambition of achieving something" (Stevenson, 2010a). Educational aspiration thus refers to one's hope or ambition of achieving something in education. Sometimes, the meaning of aspiration and its synonym expectation, defined as a "strong belief that something will happen or be the case" (Stevenson, 2010b), may be used interchangeably (Hong, 2022). We understand an individual's current state, characterising mainly their talent, previous education, will or sufficient motivation to achieve a specific educational goal, usually formulated by obtaining a certain degree and field of education.

Children's abilities and talents play an essential role in developing their aspirations. Research indicates that children's aspirations are raised when doing well academically. For example, children's ability at age seven was related to their aspirations at age 11, and ability at age 11 was related to aspirations at age 16. At 11 and 16, children's aspirations were also positively related to their test scores. (Bond & Saunders, 1999, cited in Gutman & Akerman, 2008). These findings suggest that aspirations and the ability to influence each other throughout the school years, therefore establishing causality between these two influences, is difficult (Gutman & Akerman, 2008). Educational aspiration is a term that can be researched and explained using psychological, pedagogical and sociological theories. From a psychological point of view, it is part of the performance motivation construct we need to achieve. Students' achievement motivation is an essential prerequisite for their engagement, overcoming study difficulties and, ultimately, completing their studies. The motivation to achieve goals leads individuals to pursue work they perceive to be valuable and prompts them to compete with others (Covington, 2000). This drive may come from an internal or external source. Achievement motivation is intrinsic when interest or enjoyment sparks it in the task. It is organic to the person, not a product of external pressure. Achievement motivation can be instead extrinsic when it comes from outside the person. Common sources of extrinsic motivation among students are rewards like good marks or praise from parents and teachers (OECD, 2017).

From a pedagogical point of view, educational aspirations are seen as a characteristic of the learner, which can or needs to be cultivated educationally. Quaglia and Cobb (1996, p. 131) believe that "Assuming that students' aspirations can be impacted in some way, and assuming that the best way to go about that is to do so indirectly via changes in whole group aspirations, there are enormous implications for schools (e.g., create an environment which fosters aspirations)". Professionals and volunteers who work closely with young people also have an essential role in helping them to develop and realise their aspirations. Evidence suggests that while increasing aspirations is worthwhile, a national approach will be vital in helping all young people achieve their potential and meet challenging targets (Gutman & Akerman, 2008).

Gutman and Akerman (2008) state, "numerous studies have found that aspirations are significant predictors of young people's educational and occupational attainment. However, there is less evidence concerning the causal nature of these associations in terms of whether aspirations predict later achievement, controlling for other individual and family characteristics. The authors add that "the influence of aspirations on outcomes may also vary according to the young people's characteristics. For certain groups, including females, economically disadvantaged young people and those from ethnic minorities, high aspirations may not necessarily predict higher educational and/or occupational achievement" (p. 15). While data on educational aspirations is comparatively easily accessible, there is no common agreement on measuring the concept. Most commonly, survey participants are asked to choose between different educational alternatives in

response to questions of the following form to collect information on their idealistic and realistic aspirations, for example, "What is the highest level of education you would like to get?" (Trebbels, 2015). Although there is a growing interest in researching study aspirations, more attention is paid to their racial, gender or socio-economic factors (Behjoo, 2013; Hong, 2022) or their relationship to educational outcomes (Gutman & Akerman, 2008). Aspiration is the variable that acquires values based on the subjective perception of one's study, learning or career desires and/or ideas. In our research, we asked respondents to choose the answer to the question, "Do you want to be successful at secondary school?" From the following options: a) definitely yes, b) rather yes, c) I do not know, d) rather not, and e) certainly not.

3. STUDY PREDISPOSITIONS

Study predispositions (preconditions, prerequisites) are a set of knowledge, (key or transversal) competencies, (cognitive) abilities, talents, study ambitions and study motivations. The breadth of understanding of this concept depends primarily on why we deal with them and for what purpose we define them. That is usually the case in admission procedures at a secondary school or university, requiring transparent operationalisation into an effective tool for measuring them.

For many decades, the SAT (Scholastic Aptitude Test) has been one of the world's most widely used tools for selecting suitable university candidates. The test consists of three parts: reading, math, and writing, or ACT (American College Testing), used by up to 78% of American schools. Predictive validity, as an essential feature of these tests, expresses their ability to predict future success. Research shows that entrance tests and final exams or secondary school grades have their justification in university admission procedures. For all these predictors, we find studies confirming their ability to predict university achievement or successful completion of studies. Indeed, the combination of these predictors predicts significantly better than the predictors alone. (Bartáková, Chvál, & Martinková, 2018). Since 2015, a uniform entrance examination has been introduced in the Czech Republic for all secondary school study programs ending with a school-leaving examination. It consists of a test in the mother tongue and mathematics, and its minimum weight in the admission procedure is 40%. It is criticised, among other things, because it does not work with the cut score. Our research examined study prerequisites in the form of their subjective reflection by interviewing secondary school students using a simple and understandable question "Do you think that you have the prerequisites for the chosen field of study?" Students chose one of the offered variants: a) definitely yes, b) rather yes, c) I don't know, d) rather no, and e) definitely no.

4. TECHNICAL THINKING AS PART OF TECHNICAL LITERACY

Technical thinking is a part of technical literacy that emphasises critical thinking. Plischke and Kropáč (2010, p. 222) claim that "critical thinking results in decisions and their defence while respecting the arguments of others." Critical thinking develops critical reading, which Wallace and Wray (2011, p. 7) characterise as "a skill in assessing the extent to which authors have provided adequate justification for their claims." Technical thinking helps to understand the everyday life of Society 4.0, influenced by digitisation, automation, and robotisation in the 21st century. "The assumption of understanding is an a priori component of every speech act or information transfer (Štochl, 2005, p. 142). Acquaintance with processes and the assimilation of currently relevant information linked to technical literacy includes technical education within the framework of general education as well as narrowly specialised training aimed at preparing experts with a focus on the performance of technical professions of all qualification levels. The goal of technical education, in general, is the achievement and development of an individual's technical literacy. Trexima (2015, pp. 7-8) defined "technical literacy as the ability of a human individual to understand technical processes and the ability to use, assess and determine the right technologies and approaches." Technical literacy is described in the Standards (2020) within eight characteristics of cross-cutting competencies and their application transfer of possible use in eight industries (sectors). The Standards for Technology and Engineering Literacy (STEL) can be seen as an inspiring strategy to innovate technical education curricula at all school levels. The standards for technical and engineering literacy (STEL) consist of 1. Nature and Characteristics of Technology and Engineering, 2. Core Concepts of Technology and Engineering, 3. Integration of Knowledge, Technology, and Practices, 4. Impacts of Technology, 5. Influence of Society on Technological Development, 6. History of Technology, 7. Design in Technology and Engineering Education, 8. Applying, Maintaining and Assessing Technological Products and Systems. Practices of STEL consist of eight areas: 1. Systems Thinking, 2. Creativity, 3. Making and Doing, 4. Critical Thinking, 5. Optimism, 6. Collaboration, 7. Communication, 8. Attention to Ethics. The aspect of context through the lens of STEL is also important here, categorising it into eight parts: 1. Computation, Automation, Artificial Intelligence, and Robotics, 2. Material Conversion and Processing, 3. Transportation and Logistics, 4. Energy and Power, 5. Information and Communication, 6. The Built Environment, 7. Medical and Health-Related Technologies, 8. Agricultural and Biological Technologies (Švrčinová, Vicherková, Chmura, & Malach, 2022, p. 25). In the 20s of the 21st century, the educational concept in the Czech Republic underwent a revision of key curricular documents, primarily in the direction of strengthening digital (technical) literacy, namely in the curriculum of basic education (RVP ZV) and secondary education. Research by Křížkovská (2008, p. 134) devoted to the level of individual components of creative thinking showed that "Society requires social skills, independent thinking and creative thinking, and the school should fulfil these requirements."

5. EDUCATIONAL SUPPORT

The fundamental principle of the Educational Support Policy is a holistic approach to the individual needs of each child. The aim is to ensure that the support given is planned and provided in the best interest of each child. The policy avoids categorising or labelling the child by calling them SEN pupil or SWALS pupil but by recognising that every child may need support at some time throughout their schooling and the support should be tailor-made to the needs of the child" (Schola Europaea, 2018, p. 6). This policy is also evident in the current strategy of the educational policy of the Czech Republic (MŠMT, 2020), e.g. in the formulation of two strategic goals: a) to focus education more on the acquisition of competencies needed for an active civic, professional and personal life and b) to reduce inequalities in access to quality education and enable the full development of the potential of children, pupils and students. Secondary technical schools, schooling 80% of the young population in the Czech Republic, have the duty to "Strengthen career counselling, cooperation with employers, departments and other partners" by systematically working on the career development of each student and strengthening their professional identity and connection with the field of education, thereby early graduation and "travelling between disciplines" would be avoided (p. 35). Therefore, the role of career counselling in schools

must change. Furthermore, the skills of educators to support students in completing their studies and transiting to the labour market must also be improved.

These changes first require transformations in the school culture - an intangible manifestation inside the organisation which mirrors itself primarily in the process and organisation of teaching, the relationships between teachers and students, and the relationship of teachers to their profession and their work (Eger & Beran, 2021). These relationships of teachers will tend to be adopted by their students. Rydlo and Tesárek (2021) consider the acquisition of new competencies or the development of existing ones, which generally leads to a shift in the upbringing and education of each student, as the main goals of the professional development of teaching staff. Professionally well-disposed teachers, belonging to the professional social type in the sense of Holland's theory, should co-create a supportive, supportive environment that has the potential to fulfil Holland's hypothesis that "people with more information about work environments make better career choices than people with less information." (Kohoutek, 2009, p.17). Based on research advice, Mainhard, Brekelmans and Wubbels (2011) summarise that the supportive behaviour of the teacher, whom students perceive as warm and caring, is essential for creating a compelling context for learning. Using appropriate and non-offensive humour, encouraging positive student behaviour, providing emotional and academic support to students and undertaking activities students consider entertaining support a positive classroom social climate and constitute a motivational factor for students. Although the effects of supportive behaviour they found were not substantial, they showed that supportive behaviour pays off immediately and is an investment for the near future as well. Chen (2005) found that in a set of secondary school students, they perceived parental support and teacher support were directly related to academic achievement. However, perceived teacher support made the most total (direct and indirect) contribution to student achievement. Perceived peer support had the slightest, nevertheless significant, indirect relationship to academic achievement.

6. RESEARCH METHODOLOGY

6.1. Research objectives

- The objective of the empirical research was to find out the following:
- 1. division of students into groups according to the subjectively perceived level of their own educational aspirations;
- 2. division of students into groups according to the subjectively perceived level of their own study prerequisites;
- 3. division of students into groups based on both of these criteria;
- 4. students' opinions on the existence of support for their technical thinking divided according to their subjectively perceived level of study aspirations;
- 5. students' opinions on the school's influence on deepening their professional interest, divided according to their subjectively perceived level of study aspirations;
- 6. the significance of the relationships between the subjectively perceived level of one's own study aspirations and between the subjectively perceived level of students' own study prerequisites
- 7. the significance of the relationships between students' opinions on the existence of support for their technical thinking and the subjectively perceived level of their study aspirations
- 8. the importance of relationships between students' opinions on the existence of support from the school of their professional interest and the subjectively perceived level of their educational aspirations.

6.2. Data collection

The research was carried out within the TAČR project at the Faculty of Education of the University of Ostrava. The data were collected using an author's questionnaire containing 29 items (20 closed and nine open or semi-open). Four items and their results are presented in this chapter. Data collection was carried out from September 2020 to February 2021 on a deliberately selected research sample of 907 respondents (students of 6 technical secondary schools) in the Moravian-Silesian Region of the Czech Republic. Most of the research group consisted of boys (884, i.e., 97.46%), and only 21 (2.32%) respondents were girls. Three-quarters (630, i.e., 69.40%) of respondents studied a four-year engineering field completed with a school-leaving examination, and only a third of 266 (29.33%) respondents studied another field of study (non-engineering).

7. RESULTS

A positive finding is a significant predominance of students (81.48%) who have ambitions (answers *definitely yes* and *rather yes*) to be successful. A negligible share of 6.78% of students does not have these ambitions (answers *rather no* and *definitely no*). In absolute terms, there are 61 students who, for some reason (perhaps they do not study at the school of their choice), do not intend to aspire to the term "successful student". A particular explanation for this number may be that the secondary school students understood the term in the pursuit of good grades, which may not be of significant value to them at present. Thus, a negative opinion does not necessarily mean this group of students resign to professional knowledge and skills acquisition. More than a tenth of the respondents were unable or unwilling to assess their study ambitions (Table 1).

| Quantities | Student answers Q34 | | | | |
|--------------------------------|---------------------|------------|--------------|-----------|---------------|
| | Definitely yes | Rather yes | I don't know | Rather no | Definitely no |
| Absolute quantities | 405 | 334 | 101 | 47 | 14 |
| Relative quantity | 44.65% | 36.82% | 11.14% | 5.18% | 1.54% |
| Cumulated absolute frequencies | 739 | | 101 | 61 | |
| Cumulated relative frequencies | 81.48% | | 11.14% | 6.73% | |

Table 1.Student expression of aspiration to be a successful student.

However, the result of student evaluations of one's preconditions for studying a selected field at a secondary school turned out to be somewhat surprising because only 60.20% of students subjectively perceive that they have (answers *definitely yes* and *rather yes*) these preconditions. About one in six students (15.77%) believe they do not have the prerequisites to study (answers *certainly no* and *rather no*). Almost a quarter of students chose the answer "I don't know". It might be reasonable to analyse these answers in terms of the year of study (Table 2).

| Quantities | Student answers Q7 | | | | |
|--------------------------------|--------------------|------------|--------------|-----------|---------------|
| | Definitely yes | Rather yes | I don't know | Rather no | Definitely no |
| Absolute quantities | 151 | 395 | 215 | 104 | 39 |
| Relative quantity | 16.65% | 43.55% | 23.70% | 11.47% | 4.30% |
| Cumulated absolute frequencies | 546 | | 215 | 143 | |
| Cumulated relative frequencies | 60.20% | | 23.70% | 15.77% | |

 Table 2.

 Student perception of preconditions for the selected field of study.

Table 3.

Distribution of students according to the subjectively evaluated level of preconditions for study and the expressed degree of ambition to be a successful student.

| | Question Q34 - I have aspirations to be a good student | Question Q34 - I have no aspirations to be a good student | Question Q34 - I do not know if I have aspirations s to be a good student |
|---|--|---|--|
| Question Q7 - I have the preconditions to study | 473 students (52.15%) | 26 students (2.87%) | 46 students (5.07%) |
| Question Q7 - I have no preconditions to study | 94 students (10.36%) | 20 students (2.21%) | 27 students (2.98%) |
| Question Q7 - I don't know if I have the preconditions to study | 169 students (18.63%) | 15 students (1.65%) | 28 students (3.09%) |

Table 3 shows the values for the intersection of the two investigated constructs. Due to the high frequency of "don't know" responses, the initially intended four-field table is processed with nine fields to use all the data obtained. For the first time, it is interesting to note that 52.15% of students believe that they have the prerequisites to study and, simultaneously, want to be good students. Of those students who believe they have the prerequisites to study, up to 86.7% aspire to be good students. In the whole group, 10.36% of students believe they do not have the prerequisites to study and, simultaneously, have ambitions to be good students. But the ambition to be a good student also has 66.66% of all those who think they do not have the prerequisites to study. Only a tiny proportion of all students (2.87%) have no ambition to be good students, even though they think they have the prerequisites to study. 20 (2.21%) students in the research group believe they do not have the prerequisites to study and do not have the ambition to be good students. Twenty-eight students who could not assess their characteristics level deserve attention and targeted educational intervention.

Hypothesis H1 expressed the main finding presented in Table 3 in the following wording: "Students who, in their opinion, have the prerequisites to study a selected (technical) field more often declare their aspirations to be a good student than students lacking (not) these preconditions. Therefore, the values given in Table 4 allow this hypothesis H1 to be accepted.

Table 4.

H1: Statistical significance of the distribution of students according to the subjectively evaluated level of preconditions for study and the expressed degree of aspiration to be a successful student

| Pearson's chi-square = 32,720221 degree of freedom = 4 significance p= 0,0136285E-4 | | | | | | |
|---|--|---|--|----------------|--|--|
| Question 7 | question Q34 - I have aspirations to be a good student | question Q34 - I have no aspirations to be a good student | Q34 - I do not know if I have aspirations to be a good student | Line totals | | |
| I have the preconditions to study | 473(446,682) | 26(37,021) | 46(61,297) | 545 | | |
| I have no preconditions to study | 94(115,563) | 20(9,578) | 27(15,859) | 141 | | |
| I don't know if I have the preconditions to study | 169(173,755) | 15(14,401) | 28(23,844) | 212 | | |
| Column totals | 736 | 61 | 101 | 898 | | |

It was thus proved that there is a statistically significant difference in declaring ambitions to be a good student among students with different self-assessments of their preconditions to study the field. Hypothesis H1 was confirmed.

Table 5.

The division of students according to their subjective evaluation of their teacher's guidance towards thinking about a technological problem and the expressed degree of aspiration to be a successful student.

| | Question Q34 - I have aspirations to be a good student | Question Q34 – I have no aspirations to be a good student | Question Q34 – I do not know if I have aspirations to be a good student |
|--|--|--|--|
| Question Q27 - teacher guides us towards thinking about a technological problem | 568 students (62.62%) | 41 students (4.20%) | 73 students (8.05%) |
| Question Q27 - teacher does not guide us towards thinking about a technological problem | 159 students (17.53%) | 19 students (2.09%) | 28 students (3.09%) |

Table 5 shows the values for the intersection of the two investigated constructs. 62.63% of students said that they are encouraged and guided by their teacher towards thinking about a technical problem, and they have ambitions to be good students. However, only 4.52% of students think that although they are encouraged and guided by their teacher towards thinking about a technical problem, they do not have ambitions to become good students. Attention should be paid to the fact that 17.53% of students have ambitions to become good students; however, they do not think that they are encouraged and guided by their teacher during their technical training classes towards thinking about a technical problem and using critical thinking skills. 8.05% of students who are guided by their teachers towards thinking about a technical problem cannot express and evaluate whether they have ambitions to become good students or not, which can be a result of several factors, i. e., low confidence when it comes to their own learning potential, and/or student's insufficient skills to assess a specific problem.

The hypothesis H2 expressed the main finding presented in Table 5 in the following wording: "Students, who have stated that their technical training teachers guide them towards thinking about a technical problem said that they have aspirations to be a good student more frequently than students who stated that their technical training teachers do not guide them towards thinking about a technical problem."

However, values in Table 6 do not allow us to accept hypothesis H2.

Table 6.

| H2: Statistical importance of the students' distribution according to their subjective |
|---|
| evaluation of their teacher's guidance towards thinking about a technical problem and the |
| expressed extent of aspiration to be a successful student. |

| Pearson's chi-square = 3.4033974 degree of freedom = 2 significance p= 0.1167936 | | | | | | |
|--|---|--|---|----------------|--|--|
| Question 27 | Question 34 - I have aspirations to be a good student | Question 34 – I have no aspirations to be a good student | Question 34 – I do not know if I have aspirations to be a good student | Line totals | | |
| teacher guides them towards thinking about a technical problem | 568 (558,35) | 41 (46,08) | 73 (77,57) | 682 | | |
| teacher does not guide them towards thinking about a technical problem | 159 (168,65) | 19 (13,92) | 28 (23,43) | 206 | | |
| Column totals | 727 | 60 | 101 | 888 | | |

It has not been proven that both questions have a statistically significant relationship. (Whether their teachers guide them towards thinking about a technological problem and their aspiration to be a good student).

Table 7.

Division of students according to their subjective evaluation of the school's incentives to create a deeper interest in the field of study and expressed extent of aspiration to be a successful student.

| | Question Q34 - I have aspirations to be a good student | Question Q34 – I have no aspirations to be a good student | Question Q34 – I do not know if I have aspirations to be a good student |
|---|--|---|--|
| Question Q32 - school deepens the student's interest in the field of study | 417 students (45.98%) | 15 students (1.64%) | 30 students (3.31%) |
| Question Q32 - school does not deepen the student's interest in the field of study | 313 students (34.51%) | 46 students (5.07%) | 67 students (7.39%) |

Table 7 shows the values for the intersection of the two investigated constructs. Almost half of the respondents (45.98%) think that their school deepens their interest in their field of study, and they also state that they aspire to become successful secondary school students. On the other hand, quite a high number of respondents (34.51% of students) think their school does not deepen their interest in the field of study. However, they still state that they aspire to become successful secondary school students. On the contrary, only 5.07% of students believe that their school does not deepen their interest in the field of study, and they also do not have aspirations to become successful secondary school students. It is worth mentioning that 7.39% of students think that school does not deepen their interest in the field of study, and they are also unable to decide whether they have aspirations to become successful secondary school students. Sixty-seven students could not assess their own characteristics.

The hypothesis H3 expressed the main finding presented in Table 7 in the following wording:

"Students who have stated that the school deepens their interest in the field of the study said that they have aspirations to become a good student more frequently than students who stated that the school does not deepen their interest in the field of study."

Therefore, the values given in Table 8 allow this hypothesis H3 to be accepted.

Table 8

H3: Statistical importance of the students' distribution according to their subjective evaluation of the school's incentives to create a deeper interest in the field of study and expressed degree of ambition to be a successful student.

| Pearson's chi-square = 34,294306 degree of freedom = 2 significance p= 0,0396709 E-8 | | | | | | |
|--|---|--|---|----------------|--|--|
| Question 32 | Question 34 - I have aspirations to be a good student | Question 34 – I have no aspirations to be a good student | Question 34 – I do not know if I have aspirations to be a good student | Line totals | | |
| school deepens student's interest in the field of study | 417 (379,80) | 15 (31,74) | 30 (50,47) | 462 | | |
| school does not deepen student's interest in the field of study | 313 (350,20) | 46 (29,26) | 67 (46,53) | 426 | | |
| Column totals | 730 | 61 | 97 | 888 | | |

It has been proven that there is a statistically significant relationship between both questions (whether their teachers guide them towards thinking about a technological problem and their ambition to be a good student). Hypothesis H3 was proven.

8. DISCUSSION AND CONCLUSIONS

It was found that 81.48% of the respondents admitted the aspirations to be successful. Our finding is very close to the findings of Khattab (2015), who found a high level of aspiration in 83% of them in a set of more than 14,000 students. Although Abdelrazek (2015) found a moderately strong dependence between the level of aspiration and motivation (r= 0.32), he does not provide data on the distribution of the studied group of students according to their level of aspiration. 60.2% of students perceive that they are predisposed to study the field. A similar figure was not found for other populations, so it is impossible to assess whether this proportion of students is common or exceptional in the group we examined.

More than half of students (52.15%) also state that they are ambitious to study successfully and consider that they have the appropriate study predispositions. No other results are available for this defined pair. However, it can be predicted that this group of students will achieve good academic results (Abdelrazek, 2015). The difference in declaring ambitions to be a good student among students with different self-esteem preconditions for studying the field failed to prove statistical significance.

Almost half of all respondents (45.98%) think that school deepens their interest in the field of study, and they also state that they have ambitions to be successful secondary school students. On the other hand, 34.51% of students think that school does not deepen their interest in the field of study, and yet they say that they have ambitions to be successful secondary school students. Interestingly, more than half (62.63% of students) answered that they think their teachers guide them towards thinking about technical problems, and they have ambitions to be good students. Only 30 respondents could not evaluate whether they have ambitions to become successful secondary technical school students. Enhancing interest

in the field and supporting technical thinking as two supportive strategies have considerable potential to influence study engagement and study results. A limitation of this study is that this relationship was not investigated and therefore remains a topic for further research.

Research findings in the form of quantification of the share of students with a higher level of educational aspiration and with a greater degree of certainty that they have the prerequisites for studying or students with a simultaneous combination of both subjectively perceived characteristics are usable in educational practice as tools for incentives, increasing self-confidence and self-regulation. Furthermore, finding the relative number of students expressing themselves positively regarding the use of the teachers and school's researched supportive activities can be an objective argument for preparing professional (self) education.

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