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PSYCHOLOGICAL BACKGROUND FACTORS OF HIGHER EDUCATION DROP-OUT INTENTIONS

THESES OF THE DOCTORAL DISSERTATION (PHD)

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I. Introduction

The phenomenon of quitting higher education studies without qualifications presents a number of problems not only for students and higher education institutions but also at the level of society, the magnitude of which is reflected in the fact that every third student who had started their Bachelor studies in the 2009/2010 academic year in Hungary had quit by 2014 spring, without obtaining the certificate for fulfilment of coursework (Stéger, 2015).

The problem is significant because education plays an important role for the European Union to become a competitive, dynamic and knowledge-based society (Halász, 2007), and in addition to supporting economic competitiveness and reducing social inequalities, participation in education, especially the completion of higher education studies is closely linked to the individual's income, their employment opportunities and well-being (OECD, 2017).

In this dissertation, we will present our researches conducted within this subject at Eötvös Loránd University and sum up the results. The aim of the surveys was to identify the background factors of higher education drop-outs in five focal areas designated by the available literature. We paid special attention to how academic and social involvement, academic motivations, psychological variables such as grit, well-being, perceived competencies, incongruence of expectations and actual experiences related to higher education, the students' family and social background correlate with drop-out intentions.

The majority of the studies were carried out among active students, thus the dependent variable of the surveys was the frequency of thoughts concerning quitting studies and the intention of quitting the training programme altogether. The phenomenon of dropping out was examined at the level of training programmes and was studied at a single higher education institution, the Eötvös Loránd University, a high-prestige institution located in the capital with exceptional students due to the institution attracting the highest number of applicants nationwide.

II. Theoretical background

The dropping out and the concept of academic success can be defined in a variety of ways and on several levels (institutional, individual, training programme level), which makes the data difficult to compare domestically and internationally. Furthermore, there is a special aspect in Hungary whether the students who certifiably fulfil coursework but fail to qualify for their degree are to be considered as drop-outs or not. According to the 2013 OECD publication, Education at a Glance, in Hungary only 52.7% of students who enter tertiary education graduate from the programme within its theoretical duration, which is the lowest result within the surveyed countries (OECD, 2013).

Since there are various explanations as to why students quit their studies, a high rate of non-completion of training programmes does not necessarily mean the failure of the student, neither that of the higher education institution nor that of the system: students may switch to other training programmes if they realise that their original choice does not meet their
expectations, or they may commit to an employer before graduation, or perhaps they never had the intention to obtain a diploma in the first place, only to complete a few courses (OECD, 2016). However, the lack of a degree may inevitably come with disadvantages in the long run because of the lower income and the worse employment opportunities it typically entails.

The phenomena of dropping out of higher education institutions and, contrarily, persistence in an institution/training programme is one of the most intensively studied higher education research topics. First studies on attrition appeared in the 1930s, but it wasn’t until the early ’70s that the primary source of the problem was sought in anything other than the students themselves – one of the earliest articles dealing with the subject was titled, very expressively, „College student mortality” (McNeely, 1938). In the 1970s, however, theorists began to put various other factors into model and thus understand how these attributes interact with each other, and what effect they have on attrition over a longer period of time (Tinto, 1975). It was around this time that involvement (or integration as it was then referred to) emerged as one of the key factors in persistence.

Durkheim's observations on suicide had a major impact on theorists studying premature school leaving in the early 1970s. According to his theory, the suicide ratio increases if the level of normative and collective social integration is inadequate (Durkheim, 1961). Just like suicide is a form of exiting society, so can attrition be considered a way of withdrawing from a smaller social system, implying similar processes in the background. Vincent Tinto, influenced partly by Durkheim’s theory, outlined a theoretical-institutional model in 1975 that is considered almost paradigmatic by many authors who have since academic drop-out (Braxton et al., 2014; Davidson & Wilson, 2013). According to Tinto, the strength of social and academic integration of students determines their persistence in the institution. His longitudinal theory states that the attributes of students such as family background (parents' education, financial situation), personal characteristics and previous studies all influence their university-related expectations, their initial commitment to the institution, and the goal of completing their studies. This commitment will then be influenced by the university environment and by the degree of integration into the academic and social life at the university and will ultimately change over time, directly predicting drop-out intentions and attrition (Tinto, 1975). Subsequently, as a result of his further analysis of the theory, he listed the four conditions of student retention, which are: transparent and unambiguous academic expectations, academic and social support provided by academics and students, frequent and developmental assessment and feedback and, what he considers most significant, academic and social involvement (Tinto, 2012).

Over the past fifteen years motivational theories have become increasingly popular not only as independent explanations of success in education and retention but also as a supplementary explanation within retention theories. Stage was among the first to criticize Tinto's theory for not recognizing the role of motivation in the process of commitment to an institution and graduation (Stage, 1989). Guiffrida argued that the principles of self-determination theory (SDT) (Deci & Ryan, 1991, 2000) can help reveal connection between motivational orientation and academic performance and academic retention, which can be used to further develop Tinto's (1993) theory (Guiffrida, 2006).
Regarding the strength and character of motivations, academic retention shows a strong negative correlation with the degree of amotivation, a strong positive correlation with intrinsic motivations, and a weaker positive correlation with the extrinsic motivation of integrated regulation and the extrinsic motivation of identified regulation (Vallerand & Blssonnette, 1992).

In addition to models of college student retention and motivations, it has emerged in the recent years that other psychological variables may also have possible effect on academic retention. One research showed that grit was a better indicator for retention than SAT scores or self-control (Angela L. Duckworth, Peterson, Matthews, & Kelly, 2007). It has also been revealed that, in the case of schoolchildren, positive evaluation of the perceived competence for learning may also be correlated to persisting in education (Obach, 2003). Dissonance between pre-entry expectations and realities of the university and the training is also a possible factor of attrition (Habley, Valiga, McClanahan, & Burkum, 2010).

Both domestic and international research results prove that social and economic background also has a strong impact on the probability of graduation (Veroszta, 2012). Those with more favourable socio-cultural and financial backgrounds and urban youths are more likely to apply for higher education, especially for the more marketable university training programmes (Róbert, 2000). The success of students already enrolled in higher education is also positively affected by their parents' qualifications, favourability of their financial situation and the rank in hierarchy of the settlement type in which their permanent residence is located (Pusztai, 2008). Furthermore, the likelihood of staying in tertiary education is higher for women (Stéger, 2015). The meta-analysis of 109 studies showed that, similarly to the socioeconomic status, secondary school GPA is also a moderate predictor of retention (Robbins et al., 2004), yet research results concerning the relationship between attrition and working beside university studies are still controversial.

### III. Research questions

Since the causes of higher education drop-out can be quite complex, we have identified five focal areas within the framework of our empirical work, and phrased them as research questions:

1. **What is the relationship between academic and social involvement and the intention to drop out?**
   
   *The central role of academic and social involvement in the decisions leading to continuing or quitting studies has been described in many theories (e.g.: Tinto 1975, 1993, 2012), as have the factors that can support the development of such involvement. We investigated the role of involvement in a higher education institution in Hungary and the role of Tinto's list of factors in supporting involvement and retention in this environment.*

2. **What is the relationship between the strength and type of academic motivation and the drop-out intention?**
Academic-related motivations can help understand decisions leading to dropping out both as an independent explanation or as a supplementary of Tinto's model (Guiffrida, Lynch, Wall, & Abel, 2013; Habley et al., 2010; Stage, 1989; Vallerand et al., 1992). We explored the effects of this motivation on the drop-out intentions of students at the higher education institution where we conducted our survey. It was our expectation that the absence of academic motivations (amotivation) would be closely correlated with intentions to quit studies and also that the role of intrinsic motivations would have higher significance than extrinsic motivations.

3. Which psychological variables correlate with drop-out intentions?

In addition to the motivational variables, numerous psychological constructs have also been associated with academic achievement and retention. We have examined some of these recently studied promising variables to determine their role in predicting drop-out intentions.

4. How does incongruency between prior expectations of higher education and actual experience correlate with drop-out intentions?

In formulating this research question, we assumed a common academic observation to be true, namely, that the students’ expectations formed prior to application are often unrealistic, and if their academic experience later contradicts this, it may contribute to their decision to drop-out. The accuracy of pre-information related to the university can thus play an important role in retention (Habley et al., 2010).

5. How do the students' family and social background, sex, age, academic results interrelate with drop-out intentions?

It has been shown in several studies that the students’ family background, their parents' qualifications, their place of residence, their financial situation and sex all have basic influence on their school performance from as early as infant school, all through junior school and secondary school, up to higher education applications (Balázs, Lak, Ostorics, Szabó, & Vadász, 2016; Herczeg, 2014; Kiss, 2008; Pusztai, 2008; Róbert, 2000; Stéger, 2015; Szemerszki, 2012, 2015; Varga, 2015; Veroszta, 2012). Students admitted to higher education institutions, especially to a science university with exceptionally high application rates located in the capital constitute a narrow and heavily selected group, which raises the question how much their academic performance and their intentions to complete or quit studies is influenced by these effects.

The summary of studies is found in Table 1, the hypotheses related to the research questions and the related results are summarized at the end of the thesis in Table 5.
### IV. Methodology and results

#### IV.1. Preliminary study

To assess the scale and characteristics of actual drop-out data at a programme level, we drew anonymous data from the electronic education system in spring 2017 and examined the data of students enrolled in 2011 and 2012 in either a bachelors’ or a masters’ training programme at ELTE. The proportion of drop-outs was higher among men, older students and those who started fee-paying training programmes, as expected. There was significant difference between the sexes everywhere, except in the field of science and IT, in favour of women. Students attending evening or correspondence training courses who presumably have other commitments were also represented in a higher proportion among those who quit training. There was a much higher drop-out rate among students starting bachelor programmes than among those engaging in master studies. Upon comparing the different training areas, we have observed that bachelor students in IT, science and law are most at risk, and those in sports and social sciences are least at risk of quitting. The drop-out rate among students living in dormitories was somewhat lower than among those living elsewhere, which is probably due the higher social and academic involvement the dormitory offers. There was no clearly identifiable pattern along the settlement type of permanent residency (capital, town/city, village). Students obtaining a degree usually achieved better academic results throughout their training and had a better started/completed credits ratio, but perhaps the most remarkable...
prediction is the eventuation of passive semesters: there were hardly any students among the graduates who had any passive semesters at all.

IV.2. Study 1.: Assessment of drop-out intentions in the light of disappointment, level of self-esteem and anxiety

In our first study, we examined a 690-person sample of Eötvös Loránd University students to determine what relationships exit between intentions to drop out from higher education and the incongruence of prior expectations and actual university experience (referred to as “disappointments” in the survey), involvement (collective self-esteem) and two psychological variables, self-esteem and anxiety.

Methodology

Data was collected in November of 2016 through personal interviews with the employment of student interviewers. The interviewers stopped the survey participants on the Eötvös Loránd University campus, and the data was recorded partly with the help of an offline mobile data-collecting application of the Qualtrics online survey system installed on tablets, partly through a paper based version of the survey. A total of 690 students participated in the survey, one third of whom were men (233), two-thirds women (445).

To measure anxiety, we applied the State-Trait Anxiety Test (STAI-T) developed by Spielberger and collegues (Spielberger, Gorsuch, & Lushene, 1970). The Rosenberg Self-Esteem Scale (Rosenberg, 1965) was used to determine the construct of self-evaluation. University involvement was estimated on the basis of Luhtanen and Crocker's collective self-esteem scale (Luhtanen & Crocker, 1992). To understand and measure the discrepancy between the students’ expectations concerning the university and their actual experience, we gathered a list of 26 aspects, which we then measured.

The dependent variables of the survey were the frequency of thoughts about dropping out and the probability of graduation estimated by the student.

Results

A third of the respondents rarely thought about quitting their current training programme, 11.9% had such thoughts often and 54.3% never. Women, children of parents with degree, students more satisfied with their lives, those with high self-esteem and participants who had a lower level of anxiety were more likely to think that they would finish their training. Those who never thought about quitting their studies rated their financial situation somewhat more favorable.

We performed exploratory factor analysis on the 26 items of the disappointment assessment (Principal axis factoring method and promax rotation). We created three main disappointment factors, the first related to training (Cronbach alfa = 0.828), the second to teachers, especially their support (Cronbach alfa = 0.776) and the third to student community (Cronbach alfa = 0.724). The results of the confirmatory factor analysis performed on the
second half of the sample showed that the fit indices of the three factor models were adequate: TLI = 0.934, CFI = 0.959, RMSEA = 0.061.

Structural equation modeling (SEM) was used to explore the relationship pattern between variables. We found that anxiety (β = 0.26; p < 0.001) and involvement (collective self-esteem) (β = -0.26, p < 0.001) were the variables showing the closest direct relation with the drop-out intention, whereas disappointments affected drop-out through collective self-esteem. These relationships were moderate, and accounted for 23% of the variance of drop-out intention. The model fit was good (CFI = 0.939; TLI = 0.916; RMSEA = 0.057). The model is shown in Figure 1.

![Figure 1: Structural equation modeling on variables predicting drop-out intentions—Study 1.](image)

*Notation: * p<0.05; ** p<0.01; *** p<0.001. The arrows show the standardised regression weights. Non-significant connections are indicated by dashed lines.*

**IV.3. Study 2: Elaborating the college retention scale**

To assess higher education persistence and drop-out intentions, we developed a scale based on Vincent Tinto's theory (Tinto, 2012). The 50 items of the scale were formulated to inquire about conditions that Tinto defined predictive of a high retention rate.

**Methodology and results**

The students were informed about the survey and its online accessability via messaging though the electronic education system. A total of 644 people responded, all of whom were students of the Faculty of Education and Psychology at the Eötvös Loránd University; 23.6% were men (125 participants) and 76.4% were women (404 participants). The average age of participants was 23.45 years (SD = 5.61).

We performed exploratory factor analysis on the first part of the sample using principal axis factoring and promax rotation. The factor analysis revealed seven factors (KMO = 0.871, Bartlett's homogeneity test p < 0.001), which accounted for 65.3 percent of the variance. One factor, the parental support factor, was deleted because it only had two items. The final six factors were: the drop-out intention, support by academics, self-expectations, transparency of expectations, academic involvement and social involvement.
We performed confirmatory factor analysis on the survey items using the second half of the sample. The following indices of fit were taken into account in the analysis: \( \chi^2 \) probe, CFI (Comparative Fit Index), TLI (The Tucker-Lewis Index), RMSEA (Root-Mean-Square Error of Approximation). Results showed that the model fit indices were good: \( \chi^2 = 222.349; \) df = 120; TLI = 0.952; CFI = 0.966; RMSEA = 0.052.

**IV.4. Study 3: Exploration of variables predicting higher education drop-out intentions**

Since our first drop-out intentions study confirmed that academic involvement and drop-out intentions were directly correlated, in our next survey we aimed to explore how other elements of Tinto's theoretical model correlate with involvement and drop-out intentions in the Hungarian higher education environment. We also aimed to explore the role of academic motivation and to examine the capability of other, presumably drop-out related psychological variables to predict drop-out intentions, which variables, according to international literature may affect quitting higher education studies.

**Methodology and participants**

Students who attended either Bachelor's or Master's programmes at the Faculty of Education and Psychology in the 2017 spring term were invited to participate in the survey. The students concerned were informed about the survey and its online accessibility via messaging through the electronic education system. A total of 644 people participated in the study, 23.6% were male (125), 76.4% were female (404). The average age of participants was 23.45 years (SD = 5.61).

In order to assess the intrinsic and extrinsic motivation and amotivation of students towards learning, we employed the Academic Motivation Scale (AMS) (Vallerand et al., 1992; Vallerand, Blais, Brière, & Pelletier, 1989), and the Short Grit Scale (Duckworth & Quinn, 2009) to measure students' grit. With the help of the Perceived Competence for Learning (PCL) scale (Williams, Freedman, & Deci, 1998), we measured how confident students were in their competences related to their studies. The Satisfaction with Life Scale (Diener, Emmons, Larsen, & Griffin, 1985) was used to assess subjective well-being. Using the College Retention Scale (FBK) we created, we explored whether Tinto's Theory (2012) can explain the drop-out intentions in higher education. To measure satisfaction with the training programme, we phrased three statements, for example: „I would recommend the training to others.”. We also included the following socioeconomic status variables in our survey: the educational status of parents, the subjective financial situation and the settlement type of the place of residence.

**Results**

Correlation between the College Retention Scale subscales and the examined variables are shown in Table 2
Table 2: Subscales and correlation between studied variables within the college persistence scale – Study 3.

Note: **p<0.01; *p<0.05 (AMS = Academic Motivation Scale, PCL = Perceived Competence for Learning)
Drop-out intentions did not correlate with gender, self-financing of training, the number of labour hours, the financial situation or the settlement type of the place of residence, but they did correlate with study results and passive semesters.

Using structural equation modeling, we investigated how factors of the CollegeRetention Scale and the other observed variables predict drop-out intentions. The fit indices of the created models are summarized in Table 3. The fit indices of the first two models containing only CollegeRetention Scale factors were excellent, but the explained variance value of the response variable was relatively low here. The fit indices weakened slightly in the third model with the inclusion of the amotivation variable, still, overall, they remained good, but the explained variance value of the drop-out intention increased significantly. Upon adding another variable in the fourth model, the variable of satisfaction with training, the fit indices improved slightly again, and the explained variance increased also again, by 2 percentage points, so we considered this to be the strongest model overall.

<table>
<thead>
<tr>
<th>Model</th>
<th>Model description</th>
<th>Total explained variance</th>
<th>$\chi^2$</th>
<th>df</th>
<th>$\chi^2$/df</th>
<th>RMSEA</th>
<th>90% CI of RMSEA</th>
<th>TLI</th>
<th>CFI</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>The factors of the college persistence scale (FBK) directly predict drop-out</td>
<td>27%</td>
<td>283.38</td>
<td>120</td>
<td>2.36</td>
<td>0.046</td>
<td>0.039-0.055</td>
<td>0.96</td>
<td>0.97</td>
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<td></td>
<td>intentions</td>
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<tr>
<td>2</td>
<td>Three factors of the college persistence scale (FBK) predict drop-out intentions</td>
<td>27%</td>
<td>283.378</td>
<td>120</td>
<td>2.36</td>
<td>0.046</td>
<td>0.039-0.055</td>
<td>0.96</td>
<td>0.97</td>
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<td>directly and through academic and social involvement variables</td>
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<td>3</td>
<td>Three factors of the college persistence scale (FBK) predict drop-out intentions</td>
<td>50%</td>
<td>584.28</td>
<td>188</td>
<td>3.11</td>
<td>0.057</td>
<td>0.052-0.063</td>
<td>0.94</td>
<td>0.95</td>
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<td>directly, through academic and social involvement variables and amotivation</td>
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<tr>
<td>4</td>
<td>Three factors of the college persistence scale (FBK) and satisfaction with</td>
<td>52%</td>
<td>701.79</td>
<td>247</td>
<td>2.84</td>
<td>0.054</td>
<td>0.049-0.058</td>
<td>0.94</td>
<td>0.96</td>
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<td>programme predict drop-out intentions directly, through academic and social</td>
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<td>involvement variables and amotivation</td>
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</table>

Table 3: Fit indices of the hypothetical models – Study 3

Notations: $df =$ degrees of freedom; $\chi^2 =$ chi-square; RMSEA = Root Mean Square Error of Approximation; 90% CI of RMSEA = 90% confidence interval of RMSEA; TLI=Tucker-Lewis Index; CFI=Comparative Fit Index.

In the final model, model 4 (Figure 2) the drop-out intention was most powerfully predicted by amotivation ($\beta = 0.51, p <0.001$), followed by satisfaction with training ($\beta = -0.19, p = 0.004$), but social involvement also had direct predictive effect ($\beta = 0.10, p = 0.006$). Amotivation was most strongly predicted by satisfaction with training ($\beta = -0.41, p <0.001$) followed by academic involvement ($\beta = -0.23; p = 0.01$) and social involvement ($\beta = 0.11; p =
0.009). Academic involvement was predicted by satisfaction with training ($\beta = 0.51$, $p < 0.001$) and three variables of the College Retention Scale: support by academics ($\beta = 0.21$, $p < 0.001$), self-expectations ($\beta = 0.28$; $p < 0.001$) and to a small extent the transparency of expectations ($\beta = 0.08$, $p = 0.048$). Social involvement was predicted by satisfaction with training ($\beta = -0.14$; $p = 0.023$) and support by academics ($\beta = -0.18$; $p = 0.012$).

![Satisfaction with programme](image)

**Figure 2:** Model 4 of variables predicting drop-out intentions– Study 3

Notations: ** $p<0.01$; *** $p<0.0001$. The arrows show the standardised regression weights. Non-significant connections are indicated by dashed lines.

IV.5. SUMMARY OF THE MAIN RESULTS

The results related to the hypotheses are summarized in Table 5.

In accordance with our expectations, both academic and social involvement have significant effect on drop-out intentions. Overall satisfaction with the training and the degree of academic support also relate to both types of involvement, while the transparency of training requirements and high self-expectations of the student were poorly related to academic involvement. The incongruency of prior expectations and actual experiences primarily relates to drop-out intentions through involvement. The importance of social involvement is also amplified by the positive role of small groups and dormitory accommodation.

Amotivation, the state when a student does not know why they pursue their studies, has also proved to be significant, acting as an intermediary between involvement and drop-out. Regarding motivations, drop-out intentions are most affected by intrinsic motivations such as acquiring knowledge or excelling one's own previous performance, and to a lesser extent by extrinsic motivation that takes advantage of support aiming primarily to accommodate employment in line with interest and career plans.
Our studies confirm that a simplified version of the model presented by Tinto (2012) is also applicable to predict drop-out intentions in a higher education institution in Hungary. His proposed variables explained 27% of variance of drop-out intention, but if we extend the model with amotivation and factors of satisfaction with training, the explained variance is nearly doubled.

Among the psychological variables, the effect of trait-like anxiety was the most significant. Perhaps not to the expected extent, but grit was also correlated with drop-out intention. The impact of self-esteem was not significant, perhaps due to its general nature, but the strength of perceived competence in learning did play a role in the intention to continue training. We also found that subjective well-being and drop-out correlate, but this relationship was weak.

We found that the students’ initial attributes such as family background are barely related with drop-out intentions, the explanation of which may be the relative homogeneity of the studied institution: students of underprivileged socio-cultural background are a lot less likely to get into such a selective capital university in the first place, in fact, the underprivileged selection takes place much sooner, already in primary education but at secondary level at the latest. We can presume that students who are admitted to the institution despite their disadvantaged socio-cultural background have particularly strong motivation to complete the training programme, which is likely to compensate the unfavourable impact of the disadvantageous background.

<table>
<thead>
<tr>
<th>Research questions/hypothesis</th>
<th>Result</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>K1. How do involvement and drop-out intentions correlate?</strong></td>
<td></td>
</tr>
<tr>
<td><em>H1. Academic involvement and collective self-esteem correlate with drop-out intentions: higher academic involvement and collective self-esteem result lower drop-out intentions.</em></td>
<td>Affirmed The collective self-esteem was higher among those who never thought of quitting their studies. Drop-out intentions had negative correlation with academic involvement, which proved to be a weak predictor of drop-out intentions in the attrition model, and also predicted drop-out indirectly, through amotivation. (1., 3.)</td>
</tr>
<tr>
<td><em>H2. Social involvement is related to drop-out intentions: the stronger the social involvement the higher the persistence intention.</em></td>
<td>Affirmed Social involvement had a negative effect on drop-out intentions, and proved to be a weak but direct predictor of drop-out intentions in the attrition model. (3.)</td>
</tr>
<tr>
<td>Hypothesis</td>
<td>Summary</td>
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<tr>
<td>H3. Positive evaluation of training has a positive effect on academic involvement and a negative effect on drop-out intentions.</td>
<td>Evaluation of the training proved to be one of the most important variables in the drop-out model: it predicted drop-out intentions both directly and indirectly, through amotivation, and also correlated with academic involvement and to a small extent, social involvement. (3.)</td>
</tr>
<tr>
<td>H4. Academic and student support have a positive effect on the degree of social involvement and a negative effect on drop-out intentions.</td>
<td>Social involvement had a significant positive correlation and the drop-out intentions a negative correlation with the academic support factor, but we could not create a separate student support factor within the factor analysis, therefore this construct wasn’t examined. (3.)</td>
</tr>
<tr>
<td>H5. Transparency of academic expectations have a positive effect on the degree of academic involvement and a negative effect on drop-out intentions.</td>
<td>The transparency of the university’s educational expectations had a weak negative correlation with drop-out intentions. (3.)</td>
</tr>
<tr>
<td>H6. Higher self-expectations result higher academic involvement and lower degree of drop-out intentions.</td>
<td>High self-expectations of academic success related with the intention to persist. (3.)</td>
</tr>
<tr>
<td>K2. How do the strength and type of motivations and drop-out intentions correlate?</td>
<td></td>
</tr>
<tr>
<td>H7. The strength of self-determined motivation sides with lower degree of drop-out intentions.</td>
<td>Drop-out intentions were negatively correlated with self-determined intrinsic motivation factors and extrinsic motivation factors of identified regulation closest to self-determination. (3.)</td>
</tr>
<tr>
<td>H8. Academic amotivation relates positively with the degree of drop-out intentions.</td>
<td>Amotivation, the absence of study-oriented intrinsic and extrinsic motivations showed a strong positive correlation with drop-out intentions, and proved to be the strongest direct predictor of drop-out in the attrition model. (3.)</td>
</tr>
<tr>
<td>K3. Which psychological variables affect drop-out intentions?</td>
<td></td>
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<tr>
<td>H9. Higher level of subjective well being relates negatively with the degree of drop-out intentions.</td>
<td>We found a negative, but overall a very week correlation between drop-out intentions and satisfaction with life (1., 3.)</td>
</tr>
<tr>
<td>H10. Trait-like anxiety relates positively with the degree of drop-out intentions.</td>
<td>Affirmed</td>
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<tr>
<td>H11. Self-esteem negatively correlates with the degree of drop-out intentions.</td>
<td>Affirmed</td>
</tr>
<tr>
<td>H12. Grit and drop-out intentions have negative correlation.</td>
<td>Affirmed</td>
</tr>
<tr>
<td>H13. Perceived competence for learning and drop-out intentions have negative correlation.</td>
<td>Affirmed</td>
</tr>
<tr>
<td>H14. The value of the diploma and perception of higher education affect drop-out intentions: The higher education degree and the perceived value of higher education correlate negatively with drop-out intentions.</td>
<td>Affirmed</td>
</tr>
<tr>
<td>K4. How do incongruency between prior expectations of higher education and actual experience correlate with drop-out intentions?</td>
<td></td>
</tr>
<tr>
<td>H15. The degree of academic-related disappointment affect drop-out intentions: The degree of disappointment correlates positively with drop-out intentions.</td>
<td>Affirmed</td>
</tr>
<tr>
<td>K5. How do the students' family and social background, sex, age, academic results correlate with drop-out intentions?</td>
<td></td>
</tr>
<tr>
<td>H16. The drop-out intention tends to be lower among women than among men.</td>
<td>Partly affirmed</td>
</tr>
<tr>
<td>Hypothesis</td>
<td>Affirmation/Not Affirmed</td>
</tr>
<tr>
<td>------------</td>
<td>--------------------------</td>
</tr>
<tr>
<td>H17. The drop-out intention tends to be lower among the younger students than among older students.</td>
<td>Not affirmed</td>
</tr>
<tr>
<td>H18. Favorability of financial situation affects drop-out intentions negatively.</td>
<td>Partly affirmed</td>
</tr>
<tr>
<td>H19. Qualification of parents affects drop-out intentions negatively.</td>
<td>Not affirmed</td>
</tr>
<tr>
<td>H20. Children of parents who dropped out have higher drop-out intentions than those whose parents have not quit trainings</td>
<td>Affirmed</td>
</tr>
<tr>
<td>H21. The settlement type of place of residence affects drop-out intentions: higher drop-out intentions among rural students than among urban students.</td>
<td>Not affirmed</td>
</tr>
<tr>
<td>H22. There is a positive relation between employment beside studies and drop-out intentions.</td>
<td>Not affirmed</td>
</tr>
<tr>
<td>H23. Higher parental support results lower drop-out intentions</td>
<td>Not affirmed</td>
</tr>
<tr>
<td>H24. Better study results (higher average grades, better successful credit rate) have negative effect on drop-out intentions.</td>
<td>Affirmed</td>
</tr>
</tbody>
</table>

Table 5: Short summary of the hypotheses and the results
V. Literature referenced in the theses


