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To What Extent does the Level of Stress, Self-efficacy, Demographic and Study Conditions Influence the Expectations of the First Year, Bachelor, and Master Students?

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Abstract

The present study investigates the influence that perceived stress, self-efficacy, demographic conditions, and study conditions have on students' expectations regarding the university environment. The results obtained indicated significant associations between self- efficacy and the degree of fulfillment of expectations regarding the study environment but did not confirm similar effects with perceived stress, demographic and study factors. Similarly, the regression analysis indicated self-efficacy as the only significant predictor regarding the students' expectations. The conclusions of the research aimed at indicating possible explanations regarding the obtained results, but also about some methods of improving the adaptation of young people to the university conditions. At the same time, an attempt was made to explore the role that the fulfillment of expectations regarding the university program may have on the decision to drop out of school.

Keywords: University Studies, Students' Expectations, Dropping out Rate.

Introduction

Higher education has a fundamental impact on all aspects of social life. According to the theory of self-determination, the level of students' expectations is one of the most important indicators regarding well-being and the risk of dropping out of school [1].

Romania holds one of the last positions in the EU in terms of retention, inclusion in the higher education system, managing to attract 10% fewer potential students between 18-24 years than other countries, the percentage reaching 34% for those between 30-34 years, and one of the last positions in terms of dropping out rate, with around 16.4% early-leaving in 2018, to a previsioned 11.3% in 2020 [2,3].

During the study cycle, the most difficult period is the first years "47.89% dropped out in the first year of study, 39.58% dropped out in the last year of study and only 12.53% dropped out during the other years of study". The categories with a high risk of dropping out of school are students from socio-economically disadvantaged backgrounds, members of national minorities, males, with disabilities, and enrolled in part-time studies [3,4].

The present research aimed to identify the relationship between first-year students' expectations regarding the university environment and the variables perceived stress, self-efficacy, study conditions, and demographic conditions. The model of self-determination states that the students formulate at the beginning of the study cycle a series of expectations regarding the educational process [5]. The behavior of giving up or continuing studies can be established depending on the degree of concordance between the predictions and the specific realities they will face [6].

Review of Scientific Literature

Perceived stress in higher education increases the risk of dropping out of school and possibly developing emotional problems like anxiety, depression, insomnia, various metabolic disorders, and affects women to a higher degree than men [7]. Along with individual predispositions, one of the most important stressors for students is the academic ones (which are related to the activity at classes, or outside of them), other factors being social (family and group relationships), living and financial conditions (accommodation, transportation), related to the future (uncertainty about it), and those related to internalized values (self-definition, or the broader social context) [8, 9, 10, 11].

The initial level of confidence in one's effectiveness, with which the student begins the learning program, directly affects motivation and learning ability and is a good predictor of the entire subsequent academic path [12]. Educational programs based on social cognitive theories can provide the best results in im-

proving one's perceived efficiency. Moreover, the perception of one's effectiveness is an even better predictor of the student's educational path and risk of dropout, the higher his or her level of specificity. Through the relationship with the self-image, the best results are offered by the perception of one's effectiveness at the academic level, respectively at the specific level of one's study program [13].

Perceptions, thoughts, and beliefs about the university environment also play a key role in the educational process of students. The degree of fit between students' expectations at the beginning of the study cycle and the reality of the university environment is an important predictor of the educational path.

The lack of understanding of the study program and superficial knowledge of its aspects, lead to a high degree of school dropout. A large-scale study highlighted three of the most important reasons for dropout as dissatisfaction with the quality of student life, those with family and work responsibilities, and the fit between personal preferences and the specifics of the chosen study program [14].

Elements such as the overloaded daily and semester schedule [15], the internalization of negative elements even by students with very good results [16], the pressure of social expectations [17], and group interactions are also indicators of the risk of dropping out of school [18].

Other links have been noted between dropout risk and educational background, family situation, social status, living conditions, and financial possibilities [19]. According to Heckhausen's model of action phases, the intention to give up studies is a gradual process, which has its bases in the first phases of the study cycles and is continued until the decision is made; it indicates a motivational nature of the appearance and formation of the decision to give up or continue studies, consisting of 3 phases (pre-action - formation of intention, action - action, and post-action - evaluation of the result) each including a different set of cognitions [20].

Research Methodology

The sample of participants included exclusively students enrolled in the first year, bachelor, and master cycles enrolled in faculties within 9 universities in the cities of Iasi and Bucharest.

The first stage of the study was an exhaustive analysis of the literature, followed by a pretest and a reduction of items from 120 to 47. Most participants completed the questionnaire in printed form (4 pages, one side, b/w, Times New Roman, 12), and 97 were completed in Google form. The motivation to participate did not include material benefits.

Results and Discussions

The results of the study were quantified using IBM SPSS Version 12.

Participants

This study was completed by 351 students, 195 women and 157 men, enrolled in the first year of the bachelor's and the master cycles at nine Romania universities. 17 questionnaires were eliminated being incomplete.

Regarding the demographic conditions, most of the participants were 19-year-olds (44.2%), single (96.3%), from a rural area (50.7%), from traditional families (75.2%), unemployed (82,3%), and with the main income provided by parents (87.7%). Regarding the academic status, most of the participants were graduated from high school with a realistic profile (48.4%), were enrolled in the first year of the bachelor's cycle (88.3%), in humanities university study programs (46.4%), full-time education program (84,3%), without a performance scholarship (72.6%) or a social scholarship (82.9%). (table no. 1)

Univariate Statistics

The variables perceived stress, study conditions, and students' expectations were normally distributed, while the variables self-efficiency and demographic conditions were nonparametric.

The Alpha Cronbach coefficients for perceived stress were .510, for self-efficacy were.919, for students' expectations were .678 (current expectations were .661; one-dimensional dimension expectations income; future expectations were .449; one-dimensional choice expectations). Study conditions and demographic conditions included single item dimensions.

Statistical Correlations

Statistical correlations were positive between self-efficacy and students' expectations (.509), and dimensions of students' expectations (current expectations .732, expectations income.617, future expectations .840), and smaller between self-efficacy and gender of participants (.128), and between perceived stress and social scholarship dimension (.145).

Statistical correlations were negative between the self-efficacy and the working during studies (- 0.151), between the perceived stress and the future expectations dimension (- .130), between the perceived stress and the study conditions (- .106), and between the perceived stress and performance scholarship (- 0.207).

Anova One Way

Between student outcomes with humanistic profile and those with mechanical and agricultural profile were identified significant differences in perceived stress (Humanistic - Mechanical and agricultural = 1.87; sig. = 0.004/ Anova: F (3,347) = 4.26, p = 0.006 <0.05), in the level of expectations (Humanistic - Mechanical and Agricultural = 2.04; sig. = 0.004/Anova: F (3,347) = 4.91, p = 0.002 <0.05), and in the level of future expectations dimension (Humanistic - Mechanical and agricultural = 1.49; sig. <0.001/ Anova: F (3.347) = 6.45, p <0.001).

Linear Regression Analysis

Multiple regression exploration, linear, focused on the impact that the predictors perceived stress, self-efficacy, study conditions, and demographic conditions had on the students' expectations. Were used four models: model I (which includes perceived stress variable); model II (which includes variables perceived stress and self-efficacy); model III (which includes variables perceived stress, self-efficacy, and study conditions);

model IV (which includes variables perceived stress, self-efficacy, study conditions, and demographic conditions). Model II had the highest predictive power ($R^2aj = 0.254$, model explaining 25.7% of students' expectations variance), being followed by models III and IV (each one explaining only around 2% of students' expectations variance). The explained variance was significant for model II ($F(2, 348) = 60.48$, $p<0.001$), model III ($F(3, 347) = 40.28$, $p <0.001$), and for model IV ($F(4, 346) = 30.43$, $p <0.001$), but not for model I which was excluded from the analysis ($p = 0.550$, $R^2aj = - 0.002$). Also, the self-efficacy predictor has a significant Beta > 0.507, for models II, III, IV, while perceived stress, study conditions, and demographic conditions cannot be ranked. (table no. 2)

An additional simple regression exploration, linear, focused on the impact that self-efficacy predictor had on students' expectations. The model that includes only self-efficacy predictor has a higher predictive power ($R^2aj = 0.251$, model explaining 25.4% of students' expectations variance), and the explained variance were significant ($F(1, 349) = 118.53$, $p <0.001$). The self-efficacy predictor had a significant Beta > 0.504. The results are similar to those from model II (with variable stress and self- efficacy) used in the multiple regression analysis. (table no. 3)

Split File

Significant differences were found depending on conditions: gender (0.577 – 0.444), social status (0.347 – 0.482), living area (0.367 – 0.544), family type (0.543 – 0.385), working during studies (0.455 – 0.534), performance scholarship (0.464 –.522), social scholarship (0.319 – 0.544), and study cycle (0.558 – 0.760).

Unclear differences were found depending on conditions: current study profile (significant differences were found between students from humanistic profile and those from a medical and technical profile, but were not found between these categories and those from the artistic profile), and graduated high school profile (between students from humanistic profile and those from a mechanical and agricultural profile, but were not found between these categories and those who graduated real and vocational profile).

No significant differences were found depending on the condition: study program (between students enrolled in the full-time study program and those enrolled in the distance learning program.

Final Interpretations

Alpha Cronbach coefficients of internal consistency of the instruments were satisfactory and good for all variables and dimensions analyzed.

In the case of the Spearman analysis, positive statistical correlations were obtained between self- efficacy and the total of students' expectations. The results were also confirmed for three dimensions of students' expectations variable (current expectations, expectations income, future expectations). Low- level statistical correlations could not provide relevant information on the influence that study conditions and background produce on students' expectations about the study program. Smaller correlations, positive and negative, were obtained between self-efficacy and the gender of participants, and between self- efficacy and working during studies, respectively between perceived stress and social scholarship, study conditions, future expectations of participants.

Multiple regression analysis was used to explore the validity of perceived stress, self-efficacy, study conditions, and demographic conditions as predictors of students' expectations. Four models were used. Model II, which included variables perceived stress and self-efficacy, explained 25.7% of students' expectations variance. The other models used did not improve the predictive power, explaining just over 2% of the variance of the expectancy variable. Simple regression analysis which included only the predictor self-efficacy, explained 25.4% of the variance of students' expectations, confirming the results of model II. Thus, we can say that the introduction in the analysis of the perceived stress predictor is not justified, the results indicating self-efficacy as the only significant predictor of students' expectations, and also as a possible indicator of the risk of dropping out of studies. Significant differences were found depending on conditions: gender, social status, living area, family type, working during studies, performance scholarship, social scholarship, and study cycle. It was unclear if the current study profile, and graduated high school profile significantly influences students' perception. Unclear differences were found for students' university profile (were found between humanistic and medical- technical profiles, but not for artistic profile), and for students' graduation profile (were found between humanistic and mechanical-agricultural profile but were not found for real, or for vocational profile). No significant differences were found depending on the current study program, between students from full-time study and those from distance learning programs.

Conclusions

The results of the present study partially confirmed the research hypotheses. Statistically significant correlations between self-efficacy and total of students' expectations, respectively with dimensions of students' expectations like current expectations, expectations income, future expectations, it confirms the important role that self-efficacy has on the evolution of people's expectations regarding the university. According to the theory of self- determination, an improvement in the perception of one's efficiency can strengthen positive expectations, thus producing an increase in the person's motivation and efficiency regarding the study activities.

How the two variables influence each other can be seen as a continuous, interactive process. By installing a state of confidence and psychological comfort, students can become more involved and develop a proactive attitude that results in improved academic results as a whole, and strengthened students' decision to continue their university training.

Smaller correlations between the self-efficacy and the gender of participants suggest differences in perceptions of self-efficacy between men and women, but their degree is not high enough to be conclusive. Negative statistical correlations between self-efficacy and working during studies indicate the opposite effect

that they need to carry out an income-generating activity has on the perception of one's learning effectiveness, according to Ayala (2018) this meaning that working students either feel less competent in their studies or are overwhelmed by the overloaded schedule [21].

On the other hand, the influence of perceived stress, study conditions, and background conditions over the students' expectations about the study program was not conclusive due to low- level statistical correlations registered. In evaluating the stress associated with the study cycle low- value differences of perceived stress depending on obtaining a social scholarship indicates a reduced influence of this criterion; this conclusion may differ depending on the social condition of the students, especially in the case of those coming from disadvantaged backgrounds.
The negative statistical correlations that were registered between perceived stress and study conditions indicate the need to improve study conditions to reduce students' stress levels. Similarly, the negative statistical correlations that were registered between perceived stress with future expectations dimension indicates that planning for the future is another stressful time for students to overcome. The stress level is lower in the case of students who obtain performance scholarships as confirmed by the correlations registered between those two variables, these partially confirming the results found by Hassel (2018).

Exploration through single and multiple regression analyzes highlighted the important role which can be assigned to the self-efficacy in modeling the expectations of first-year undergraduate and master's students, this predictor explaining the variance of more than 25% of students' expectations. Contrary to data from similar research, the results of this study do not indicate an equally important role for the perceived stress, study conditions, and demographic conditions. The effect of these variables has on the one hand too little value to conclusively influence people's beliefs, and on the other hand, they do not seem to represent relevant criteria in the formation of decisions regarding the university; a reason for these findings may be and the period of research, which overlapped with that of examinations [22].

Confirming the results found by Entwisle (2018), significant differences in students' expectations were found depending on conditions: gender, social status, living area, family type, working during studies, performance scholarship, social scholarship, and study cycle, comparative with university study profile and graduated high school profile that has a low-level influence. Demographic and study conditions influence the way perceptions are formed in the sense that single women, from an urban area, employees, from a traditional family, not having a performance scholarship have the highest levels of stress and dissatisfaction during the university, respectively the lowest levels of expectations regarding the study program [23].

Statistical differences were found between students on humanistic and medical- technical profiles, and from humanistic and mechanical-agricultural high-school; on the other hand, differences were not confirmed for those on artistic university profile, respectively for real, or vocational high-school. This confirms the results found by Hailikari (2018) according to which the degree of fit between the field of competencies considered the highest by the student and the chosen study profile, significantly affects his educational path [24]. No significant differences were found depending on the current study program, between students from full-time programs and those from distance learning programs, contrary to most research, how study and the degree of participation in classes have an important impact on the degree of involvement of students, as well as their expectations regarding the study program [25,26].

Regarding the role of students' expectations with the degree of dropout, the identified associations alone cannot provide effective predictions but are useful in identifying clear directions for further investigations in this regard [27]. Other variables such as personality characteristics (especially the internalization of negative feedback), the degree of load of the daily program, group interactions, and the pressure of social expectations, can also directly influence the level of expectations being necessary it is necessary to continue this study to evaluate as accurately as possible the influence of each of these factors in the decision to continue or drop out of university [28-30].

Limits and Replicability

The main limitation of the present research is the limited number of participants. The significant percentage of those enrolled in university centers in the city of Iasi does not allow adequate generalization due to the specificities of each educational and urban center. Other limitations may be the lack of discrimination between study conditions for full-time and distance learning; the extended time in which the study was conducted (semester 2), thus diverting the author's intentions to avoid the influence of situational stress, and the interviewer factor [31-35].

Improvements

To confirm the role of the self-efficacy predictor in determining the evolution of students' expectations, it is necessary to continue the study through a longitudinal analysis carried out throughout the targeted bachelor's and master's cycles. As possible ways of further investigation, we mention the introduction in the analysis of some factors such as the aptitudes and preoccupations of the young people, the school results from the previous study chain, or their social abilities as variables of influence of the expectations regarding the university environment [36-41].

Applicability

The results of the study can be useful in establishing new approaches in higher education in Romania and worldwide, which should place more emphasis not only on the accumulation of knowledge and skills but also on meeting the needs and expectations of students to improve their performance and motivation. The introduction of more complex measurements regarding the role that the fulfillment of expectations plays in the educational path of young people in the first year of study can also be useful in constructing a standardized tool for assessing their subsequent academic path.

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