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The Personal Characteristics Predictors of Academic Success

Abstract

When we speak about the academic achievement of the students and their personality, the internal state of a student is in connection with his personal experience and individual differences and talents, dispositions, motives, his "I" and a whole range of cognitive processes. Modern psychological theories of personality believe that the learning and the achieved academic success represent the overall activity of the individual. It is very important to understand and determine the factors that affect the learning process in order to get a full picture of the personality of the students regarding their achieved academic success.

If we analyze the personality of the student in depth, we will understand that the academic success, besides the influence of the curriculum external factors, is significantly influenced by the dominant traits of his personality.

The personal characteristics are presented as a set of internal components that determine the success and the quality of action of the students. The relationship between the dimensions of personality and the academic success are the subject of research of many authors. One group of authors puts emphasis on intelligence as a factor for success in the learning process, while another group believes that success depends on the personal characteristics that are dominant in the individual. The purpose of this paper is to ascertain the role of the personal characteristics of the students regarding their academic success, and to understand which personality traits are dominant among respondents of male and female gender. For this purpose, in the research we applied the big-five model of personality by which we obtained data on the five dimensions of personality: neuroticism (N), agreeableness (A), openness to new experiences (O), extraversion (E) and consciousness (C). The research is conducted on a sample of 74 students aged 20 to 22 years, whereas the success is a representation of the average score they achieved during their studies. Based on the results of the survey it can be inferred that in the female students there is a positive correlation between openness (O) and extraversion (E) and success at school, and in the male students there is a statistical significance between agreeableness (A) and neuroticism (N) and success in learning. Based on the conducted research we can conclude that the success depends on the personal characteristics of the person.

Keywords: personal characteristics, academic success, students, gender

Introduction

Traditional systems of educational work have one-dimensional basis, where the person is treated as a substrate material ready to be influenced by the external influences. Many learning theories reduce down the behavior and learning of students to passively reacting on external developments, whereas external influences do not correlate with the structure of the student's personality (abilities, attitudes, motivations, etc.). Today, it is known that they are of great influence to the students' achievements.

When speaking about the academic achievement of the students and the personality of the students, the internal situation is associated with the personal

experience of the student and the individual differences and talents, dispositions, motives, his "I" and a whole range of cognitive processes. The academic success is defined through two perspectives: external and internal. The external perspective relates to academic success, whereas internal perspective refers to the inner experience of the student or his or her assessment of the academic performance and personality traits (Kuzmanović, 2011).

The modern psychological research about humans talks about the process of learning and academic success as all-embracing activities of the person. His influence in the process of learning has both positive and negative forms of behavior and personality traits. The knowledge about the factors that affect learning and the knowledge about personality traits have a great impact on the achievement of the student. Psychologists have conducted many studies which assess factors that affect academic success; factors such as intelligence, self-image, and gender are just part of the factors that psychologists explore as important predictors of the academic success (Eyong et al., 2014). Understanding the relationship between personality traits and academic performance determines how personal personality characteristics affect learning and the student's achievement.

The central problem of the educational system is the learning which progressively changes the individual and as such it evolves under the influence of the environment and the personality of the student.

The learning ability develops in parallel with the intelligence and the personality traits of the student. Because of that, there are individual differences in learning achievements of students. Personality of the student is a combination of action, thought, emotion, and motivation. The student's success is not only a consequence of intelligence. The psychological aspects of the student have an important influence in the student's achievement as well. (Atashrooz et al., 2008).

Personal characteristics and academic success

The personal characteristics are defined as a set of internal components which determine the success and the quality of the student. Students are differing in the degree of development of their personal characteristics.

Personal characteristics of acquiring new knowledge and achieving success in learning depend on the intellectual development of the students and the overall structure of the personality of the student (Vittorio et al., 2000). The dimensions of personality and academic success are the subject of research of many authors. Alfred Benet, together with his associates, constructed a test in order to measure the intelligence of children. The test could be used to diagnose the intelligence of the intellectually unsuccessful children who were not able to master the academic program (Ivanović & Ivanović, 2011). Another group of authors who believe that intelligence is not the only factor which is important in the learning processes, often uses the term intellect so as to highlight the varieties of intellectual functioning (Stojakovic, 1990).

Ananjev, Stepanova and Petrov, highlighted three functions and the aspects of those functions in the structure of intellect (memory, attention, and thinking) and they also discussed the interactions of those functions which determine the intellectual behavior of the student.

Cattell believes that the G-factor consists of two main abilities: fluid and crystallized intelligence. Fluid intelligence is not related to any specific skill; it depends on the heritable traits and the developed youth but quickly begins to weaken. The learning of that ability evolves the other, the crystallized intelligence that interacts with motivation, memory and the impact of the environment, which represents the acquired ability to perform complex intellectual tasks (Radonjic, 1992).

Personality traits as important components in learning and achieving success in learning represent consistent and permanent individual characteristics in the organization and the functioning of the learning, especially in relation to how the student receives and processes new information, how he processes, systematizes and stores it, and how he solves certain problems according to them. The personality traits of the student contain the cognitive, sensitive, and motivational components. These components bind to certain personality traits such as initiative, independence, and courage in research (Mandoc, Tanackovic & Tanackovic, 1984).

Differences in personality traits of students are the reason why students approach the school material and process it in a different way, and therefore achieve different learning results (Stevanovic, 1998). That diversity seen in the processing of receiving information is connected by some students with the already learned information; while others are remembering it as they receive it (it does not affect favorably the success of learning). Depending on the personal characteristics of the student, through the learning process some students learn the material superficially and achieve lower results, while others approach the material systematically and thoroughly.

When using the big-five model so as to assess the impact of personal characteristics on academic success, consciousness as one of the dimensions of the big-five model in a number of research stands out as a significant factor in the success of learning at all ages (Šarčević & Vasić, 2014).

Purpose of research

Adolescent personality is very complex. There are many factors that influence the development of the personality of the adolescent and the formation of certain dimensions of his personality. Each dimension and characteristic of the personality of the adolescent has an impact on the performance of its daily activities and the achievement of the academic success.

The purpose of this study is to determine the influence of personal characteristics of the personality of the student and their role in achieving academic success in students in third and fourth year of study.

Methods of research

Hypothesis of the research

The issue in this research can be defined through the following question: "Which personality traits are dominant in achieving academic success of students?" and we have set the following hypothesis: The effect of the personality traits and the gender of the students on their academic success.

The achievement of the students was taken as a dependent variable in this research, while personality traits and gender are the independent variables.

Participants

The research was conducted on a group of 74 students aged 20 to 22 years, from the State University in Tetovo and Skopje. The success is calculated by the average success of the last year. The research involved 37 female students and 37 male students and was conducted during September and October 2015.

Big five inventory for personality traits

Personality traits are tested with the big-five model of personality by which the data is obtained on the five dimensions of personality: neuroticism (N), agreeableness (A), conscientiousness (C), extraversion (E), and openness (O). Big five model of the person (Big five inventory) comprises 44 items.

This instrument uses short phrases that describe the person. Each respondent should make a choice for each statement, stating to what extent they agree with the statement. BFI has the advantage of simplicity and comprehensibility of the items.

The research was conducted on a group of 74 students aged 20 to 22 years, from the State University in Tetovo and Skopje. The success is calculated by the average success of the last year. The research involved 37 female students and 37 male students and was conducted during September and October 2015.

Data analysis

Statistical analysis of the results obtained in the research was conducted with SPSS 20 and Pearson correlation coefficient to determine the relationship between the dependent and independent variables for significance level of 0.01 or 0.05.

Results

From the obtained results it can be seen that there is a substantial statistical significance between the achievement of the students and the dimensions of personality measured by the big-five model of personality. With the statistical analysis of the data, we obtained presence of high correlation coefficient between female students, average score during studies and personality traits. We found that in female students there is a positive correlation between openness (O) as a trait of personality and average score level of $p < 0.01$. Also we found a positive correlation between extraversion (E) and average score at the level $p < 0.05$. This significant correlation points out that female students are more open to new experiences. In this group, tolerance for what is around them is greater and also represents the quality and the quantity of social reactions. These dimensions that are proven to be dominant among female students have an impact in achieving average score and success for them, thus openness to new experiences is more influential and impacts the success achieved. A wide range of interests and the need to share their experiences with others gives them greater freedom in the interactive process of learning. Using such relation as a way for easily and quickly getting information is important in the learning process. Females, in the process of learning want to

explore and learn new things, for which the examined and achieved success makes it easier.

In the case of the male students statistics present a significance between agreeableness (A) and the average score at the level p <0.01 between neuroticism (N) and the average score achieved at the level p <0.05. This level of significance in this group points out that achieved average success among male students has a great impact on the degree to which these individuals enjoy being in the company of others. They are capable of empathy, ready to help and want to receive help, and they use it as a way of reducing the high anxiety experienced by the forward-facing of a stressful situation related to learning and transferring learning.

Our hypothesis has fully confirmed that personal characteristics affect academic success.

Discussion

The learning as a process of acquiring new knowledge which enriches the personality of the student has a great significance in the life of the adolescent. Depending on the level of acquired knowledge, students get average grade from which the level of knowledge of the student can be identified. In the process of overcoming the curriculum content that should be learned to obtain the final average grade, the student is taking some processes and is also influenced by certain group of factors (Nye, Orel & Kochergina, 2013). Despite the motivation of the student to study, the external factors, the intellectual capacities of the student, and the influence of personal traits are also the basis for achieving the student's knowledge.

When you describe the personality traits you actually describe a person, but we can still make a difference between the members of a group (as in the research group of adolescents). Many psychologists consider the term "personality traits" as basis, structure and dynamics of personality, not only in determining the consistency in behavior but also in encouraging personality in specific activities. Personality traits have structural and motivational characteristics. As a result of the above mentioned, we can say that based on the person's personality traits, it depends to what degree will the student master the curriculum material and to what extent he or she will be motivated to learn. (Hrnjica, 2005).

Despite of the results obtained with the big-five model of personality, gender of the respondents and the averages for the studies may be a note that there is a connection between all these variables. Certain dimensions of personality have a significant impact in their particular group of students, according to gender in some more prominent than other. So in the female group of students, the dominant personality dimensions are extraversion and openness, while the male students are dominant in agreeableness and neuroticism. Analyzing the dimensions of personality and the average success of the students, it can be observed that in the process of learning and achieving success of students the dominant personality dimension measured by the five models has an influence as well. All this confirms that personality traits play an important role in the learning process. What will the student's achievement be on a large extent depends on the personality traits of the student which determines the character of the personality of the student.

From the research it can be noted that achieving success in learning is influenced by emotional stability or its opposite neuroticism. High scores neurotics

leads to achieving low results in learning. The reason is the anxiety that is present among students because it shows a lower success than in those students who are emotionally stable, although a small dose of stress positively affects the motivation of learning. Extraversion as a dimension that affects learning and achieving success is linked by the energy and the various activities in those individuals who possess extraversion. Eysenck says that extraversion people, depending on sociability and the activities they deal with devote less time in school obligations and achieve the poorer results. Poropat (2009) found a significant association between extroverted and average success in learning. It can be concluded that extrovert people invoked in those items that require an interactive approach in oral transferring in learning. Openness is associated with the learning as demonstrated in this research. The meta-analysis of Poropat proved that this dimension has the greatest correlation with intelligence, but not with success in learning. On the other hand openness in our research showed significant correlation with success in learning especially among the female group of respondents.

Conclusion

As many authors highlight, besides intelligence, personality and personal traits are an important factor in achieving success in learning. Based on the results obtained through the big-five model of personality we are coming to the conclusion that if we meet the personality of the student better, it can be estimated which personal trait influences learning and achieving success at school.

From this research we can conclude that there is a significant association between the personality traits and the gender of the respondents. Among the female respondents dominant personality traits which positively correlate with average success are openness to new experiences and extraversion, while among male respondents these traits are agreeableness and neuroticism.

References

Eyong, E. I., David, B. E. & Umoh, A. J. (2014): The Influence of Personality Trait on the Academic Performance of Secondary School Students in Cross River State, Nigeria. *IOSR Journal of Humanities and Social Science (IOSR-JHSS)*, 19(3), Ver. I, 12-19.

Hrnjica, S. (2005): *Opsta psihologija sa psihologijom licnosti*. Beograd: Naucna knjiga Nova.

Ivanović, M. & Ivanović, U. (2011): Odnos dimenzija licnosti adolescent i ocjena u tjelesnom odgoju. 6th Fiep European Congress 2011.

Knezevic, G., Dzamonja-Ignjatovic, T. & Duric-Jocic, D. (2010): *Petfaktorski model licnosti*. Beograd: Drustvo psihologa Srbije.

Kuzmanović, B. V. (2011): Odnos skolskog uspeha i socijalnih vestina kod ucenika osnovne skole. *Život i škola*, 58(27), 38-54.

Mandoc, P., Tanackovic, S. & Tanackovic, D. (1984): *Ucenikova slika o sebi i vaspitan rad u skoli*. Beograd: Zavod za udzbenike i nastavna sredstva.

Nye, J., Orel, E. & Kochergina, E. (2013): Big five personality traits and academic performance in Russian universities. *Psychology WP BRP 10/PSY*/2013.

Poropat, A. E. (2009): A Meta-Analysis of the Five-Factor Model of Personality and Academic Performance. *Psychological Bulletin*, 135(2), 322-338.

Radonjic, S. (1992): *Psihologija ucenja*. Beograd: Zavod za udzbenike i nastavna srestva.

Stevanovic, B. (1988): *Pedagoshka psihologija*. Beograd: Zavod za udzbenike I nastvna sredstva.

Stojakovic, P. (1990): *Psiholoski uslovi transvera ucenja*. Beograd: Zavod za udzbenike i nastavna srestva.

Vittorio, V. B., Frans, J. P., Elshout, J. J. & Hameker, Ch. (2000): Intellectual ability, learning style, personality, achievement motivation and academic success of psychology students in higher education. *Personality and individual differences*, 29, 1057-1068.

Šarčević, D. & Vasić, A. (2014): Sociodemografski i psiholoski korelati skolskog uspeha. *Primenjena psihologija*, 7(3), 401-427.

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