

THE RELATIONSHIP BETWEEN STUDENTS' LEARNING MOTIVATION AND ACADEMIC ACHIEVEMENT

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Abstract: The article is devoted to the study of the relationship between students' learning motivation and academic achievement. Here, the directions of formation of learning motivations, including their role in achieving academic achievement, are investigated. Also, the manifestations of academic achievement motivation, including its main directions, are brought into focus. It is noted that various factors play a role in maintaining the optimal level of learning motivation, increasing academic indicators of requirements, including the establishment of academic performance. Here, internal and external motives predominate. Here, research on learning motives and academic achievements is systematized, including the requirements, directions for optimizing learning motives in the field of education. It has been established that academic achievement depends more on the student's mental abilities than on his perseverance, independence, self-confidence and self-control. Therefore, learning motivation, as a rule, should be presented as one of the main factors affecting the achieved learning results.

Keywords: students, learning activity, learning motives, academic achievements, interaction

Introduction

In modern times, the development of learning motivation in students is not only relevant in terms of the requirements of the era, but also considered a fundamental factor in the development of the student's personality. Studies show that indicators of this or that activity of students depend on factors

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such as their individual psychological characteristics, intelligence, self-confidence, perseverance, self-control, metacognitive abilities, learning strategies and educational motivation [Komarraju et al, 2009; Sıcev, 2012],

In general, learning motivation is most often understood as the reason or purpose of educational activity, but as researchers have noted, this concept is more of an umbrella construct that represents a “collective image” of human characteristics, value judgments and needs, purposefulness and self-control [Pintrich and Groot, 1990; Semenova, 2015].

Research confirms that learning motivation has an indirect, rather than a direct, effect on academic performance. The mediator that mediates the effect of learning motivation on academic performance is learning activity. Students who demonstrate greater independence in learning and who participate in active learning experiences for fun and enjoyment receive higher grades than students who demonstrate less independence and are focused on external stimuli. Deci and Ryan’s research shows that if the source of initiative and regulation is external to the individual, then his activity is caused by extrinsic motivation. If the activity is carried out for its own sake, and not to achieve an external goal, then the reason for the activity is intrinsic motivation [Ryan and Deci, 2000]. A number of psychological sources show that students characterized by intrinsic motivation demonstrate greater persistence in learning, focus on solving more difficult problems and use productive (meaningful) learning strategies, which ultimately results in higher academic performance compared to students with extrinsic motivation. At the same time, a meta-analysis of the effect of extrinsic rewards on intrinsic motivation shows a tendency to a stable negative trend [Deci et al, 1998].

Deci and Ryan believe that extrinsic rewards reduce feelings of freedom, lead to suppression of intrinsic motivation and poor performance. It is also known that when controlling for parameters such as cognitive engagement, self-confidence and self-regulation, intrinsic motivation ceases to have a direct effect on academic performance, but maintains a positive relationship with cognitive engagement [Pintrich and Groot, 1990; Semenova, 2015].

The main goal of our study is to determine the effect of academic motivation on academic performance while controlling for socio-demographic characteristics of students, time for extracurricular activities and initial preparations. Is this effect direct or is it mediated by the student's educational experiences? We will try to answer these questions in the course of the study. However, it is important to take several aspects into account during the study. First, there are several types of motivation (intrinsic, extrinsic and motivational). Second, the extrinsic type of motivation is considered heterogeneous, combining both intrinsic and extrinsic features. You motivate, therefore it is further divided into four types: extrinsic, introjected, determined and integrated. Thirdly, the external type of motivation is an indicator of the least autonomy of the student when carrying out educational activities, while internal motivation, in turn, is an indicator of the student's complete freedom within the framework of educational activities [Ryan and Deci, 2000; Deci et al, 1991; Goldberg and Cornell,1998].

Literature review

Motivation for educational activities is one of the traditional objects of research in various fields of scientific knowledge, including educational psychology. The study of this problem is carried out in various directions: determining the conditions for the formation of motivation; studying the structure of motivation; identifying the relationship between educational activity and motivation, etc. Educational motivation is a system of motives for educational activities. This system consists of constantly changing and interrelated impulses. The formation of educational motivation is manifested not simply by an increase in a positive (or negative) attitude to the learning process, the assimilation and assimilation of knowledge, but by the complexity of students' motivational needs and a change in its structure.

The relationship between learning motivation and academic achievement has been studied by researchers in various periods in a wide range [Mitchell, 1992; Deci et al. 1998; Malosohonok et al, 2015]. These studies, devoted to the study of intrinsic and extrinsic motivations in learning activities,

focused on their contribution to academic achievement.

Studies show that intrinsic motivation involves the student's participation in educational experiences outside of interest, which is caused by the activity itself. Involvement in educational activities does not occur due to external coercion - the student independently initiates and regulates his own activity. [Jabbarov et al, 2023].

In turn, extrinsic motivation means the inclusion of the student in the educational process in order to achieve goals outside the activity. Thus, the external type of extrinsic motivation means the involvement of the student in educational activities due to an external subject or object (for example, relatives, high grades) that is the initiator and regulator of his activity. [Bennett & Holloway, 2014]. With the introjected type, the student relies on the rules and norms accepted in the social environment, taking them for granted. Thus, here the initiator and regulator of the activity is not the subject itself, but the rules and norms outside it. The identified type of external motivation involves the involvement of the student in the educational activity in order to achieve a certain goal. However, in this case, the initiator of the activity is himself. In the integrated type, the place of initiative also belongs to the student, and the external goal he pursues is combined with internal interest and pleasure from the implementation of the activity. [Ali, Shoukat, et al,2013].

The motive of educational activity is the student's attention to certain aspects of the educational work associated with his internal attitude towards it. Linevič (2020) noted suggests that the success of educational activity is largely determined by its motivation - a system of internal and external factors that promote learning. Motivational factors can be both the needs of the student, and the personal meaning he puts into learning, and the example of others, and a system of reinforcement and punishments. Motivation can be presented at different levels: - internally organized, that is, determined by the psyche of the person himself. Such motivation is associated with the needs, desires and interests of the student. In other words, this is dispositional motivation; - externally organized, that is, due to external influence; the development of external conditions. This is situational motivation. Taking into account the indicated

levels of motivation, the actions of the individual are perceived as a double determination, which is the result of the interaction of the subject of activity and the developing situation [Linevič, 2020].

Studies show that demotivation is an indicator of the student's lack of motivation. This happens when he carries out educational activity without realizing its main consequences. The formation of educational motivation occurs through the indirect influence of social factors on the student. In turn, the pursuit of a certain type of learning motivation leads to behavioral, cognitive and emotional consequences.

A number of studies have been conducted that demonstrate the relationship between the need for autonomy, learning motivation, participation in the learning process and learning outcomes in students. Within the framework of these studies, the motivational mediation model in education was evaluated [Jang and Kim, 2012]. In addition, multilevel factor modeling showed statistically significant relationships between autonomy, need satisfaction, learning activity and perceptions of academic performance. In addition, each of the model indicators had both direct and indirect relationships with academic performance. A number of other studies have shown that learning motivation indirectly affects academic performance through the strategies used and self-regulation [Greene et al., 2004; Maloshonok et al., 2016; MacKinnon, 2008]. In addition, the dependence of academic achievement and learning motivation on the level of self-esteem of the demands was also studied. In this regard, Jabbarov (2023) shows that there is a significant relationship between academic achievement and self-esteem. This fact supports the positive relationship between self-esteem and self-attitude. The higher the level of self-esteem of a student, the more important academic achievement or educational value is for him (Jabbarov, 2023). The relationship between learning motivation and academic achievement has also been studied in the context of values. Aliyeva et al (2021) shows that values play a crucial role in the formation of the personality of individuals and this effect can be better explained by the components of these values, which express how the student perceives reality, what they know, feel and relate to various situations. Taken together, these components help to form certain attitudes towards various objects, other people

and situations and play a fundamental role in the motivation of students. Therefore, values influence the attitudes and motivations of individuals, leading to various outcomes. The present study attempted to understand some of the psychological consequences of values on the mental health of students. The results of the study show [Aliyea et al, 2021; Jabbarov, 2020].

Methodology

In our study, we tested a theoretical model that has been tested in a number of studies. We assumed that learning motivation has both direct and indirect effects on academic performance through learning activities. At the same time, we separately defined general and situational learning motivation. General motivation includes reasons for pursuing higher education, while situational motivation includes reasons for completing homework. We assumed that general motivation shapes situational motivation and also directly affects student performance. In turn, situational motivation has both direct and indirect effects on academic performance through educational experiences. Learning activity was also divided into two indicators: engagement in learning activities and absenteeism. The first indicator is the student's active participation in the educational process (for example, participation in discussions at seminars, giving a presentation, etc.), the second indicator is the student's failure to comply with the teacher's requirements (for example, truancy, truancy, truancy, etc.), late submission of assignments.

It should be noted that this study reflects the cause-and-effect relationship between educational motivation and academic performance. We can test such a relationship by using data with a time lag of the dependent and independent variables. We used data from a longitudinal study in which questions about learning motivation and learning activity were asked ahead of the performance indicator. We were able to test the proposed model. In addition, we assessed the impact of educational motivation on academic performance while controlling for parameters such as the student's socio-demographic characteristics, general preparedness, and time budget for extracurricular activities. The study was

conducted in 2024 with a pilot nature. 60 students participated in the study.

As a method to determine the direct or indirect impact of educational motivation on academic performance, mediation analysis was used, which requires the implementation of several steps. The first step is related to the determination of the effect of the independent variable (in our case, educational motivation) on the dependent variable (in our case, academic performance). The second step involves determining the relationship between the independent variable and the mediator, which, according to the theoretical premise, can act as a mediator between the independent and dependent variables.

Results

During the study, when choosing a higher education institution, the majority of students surveyed were guided by the availability of the specialty they were interested in (67.8% of the choices). Almost a third of respondents followed the advice of their relatives and friends. It should be noted that there is a somewhat unpleasant trend regarding the decrease in the role of such a factor as “quality of education” and a significant increase in the role of the factor “lack of opportunity to enter another university”. In order to determine whether this fact is unfounded and to eliminate problems with motivation at first glance, this survey was conducted. It turned out that more than half of the students (67.8%) chose the specialty of their own free will. The rest were prompted to these specialties by others (32.2%). Therefore, in the subsequent stages of the study, we focused more on those who chose the specialty. Because at this point, contradictory points could arise.

When determining the relationship between students’ learning motivation and academic achievements, a number of points emerged. The results are reflected in table 1.

Table 1. Relationship between students' learning motivation and academic achievement

Types of learning motivations	Motivation for the task	Motivation for academic achievement
Intrinsic	0.39**	0.34*
Concretized	0.28*	0.15
Reflected	0.12	-0.3
External	-0.24	0.4
Amotivation	-0.17*	-0.28*

As can be seen from Table 1, intrinsic and defined types of educational motivation have a statistically significant positive relationship with academic performance. Thus, a student who carries out educational activities for the sake of interest and pleasure receives higher grades. In turn, motivation has a statistically significant negative relationship with the average score obtained in all subjects. At the same time, no statistically significant relationship with academic performance was found for the two types of motivation of the negative pole. It should be noted that the lack of a relationship between extrinsic motivation and intrinsic indicates that students' perception of assessment is dual. Thus, a student can view the grade as either an indicator of mastering the course program or as an end in itself. In one case, the reason for his educational activity may be intrinsic motivation, and in another, the regulator of his actions is an external object - assessment. However, the relationship between educational motivation and academic performance may be mediated by the student's educational experiences. Thus, a statistically significant relationship was found between the two types of educational activities and academic performance.

The index of involvement in educational activities has a positive relationship with the average score. An inverse relationship was found for the index of absenteeism and academic performance. Therefore, to determine the impact of learning motivation on student performance, we conducted a mediation analysis. In the first stage, the independent variable was the academic motivation index for higher education, and the dependent variable was the average score collected in all subjects at the end of the first academic year.

Table 2. The relationship between students' learning activity and motivation

Training activity	Average grade in all subjects
Involvement in training activity	0.48**
Not involved in training activity	-0.35*

Overall, the results of the study do not support a conflict between learning motives and performance orientation. Often, students who are mastery-oriented are also result-oriented. The latter may be an indirect indicator of result orientation. Girls are more likely to be intrinsically motivated than boys, that is, girls focus more on knowledge than on obtaining a diploma. Male students focus more on competition and independence, that is, they are more individualistic than women, who focus more on cooperation. The importance of received assessments is more often noted among women than men.

trate intrinsic motivation and individual values. Students who are employed are more likely to say that a diploma is more important to them than knowledge. Perhaps many of them do not work in their specialty or doubt the usefulness of the knowledge they have received. This is also confirmed by the fact that students who are dissatisfied with the educational process and do not work in their specialty are also more likely to note that a diploma is more important to them than knowledge. Students from rural areas pay more attention to grades than urban students; Perhaps this is due to the more responsible attitude of people from rural areas to learning.

The study showed that effective goals (the desire to be better than others) are positively associated with academic performance and personal orientation, which is understandable given the desire of students with such motivation to focus on high formal performance and the respect of colleagues. Self-confidence is most often associated with gender, academic performance, and satisfaction with learning. Intrinsic motivation is positively associated with satisfaction with education and the desire to work in one's specialty, while individuality and the importance of grades are associated with academic performance.

Discussion and Conclusion

Thus, a student can view grades either as an indicator of mastering the course program or as an end in themselves. In one case, the reason for his educational activity may be intrinsic motivation, and in another, the regulator of his actions is an external object - assessment. However, the relationship between educational motivation and academic performance may be mediated by the student's educational experiences. Thus, a statistically significant relationship was found between the two types of educational activity and academic performance. The index of involvement in educational activities has a positive correlation with the average score. An inverse relationship was found for the disengagement index and academic performance. Therefore, to determine the effect of learning motivation on student performance, we conducted a mediation analysis. Thus, the effect of general educational motivation on academic performance is mediated by situational motivation. Then, as independent variables, we added two indices of learning activity to the multiple regression model - participation in learning activities and disengagement from participation. Both of these indicators have a statistically significant relationship with academic performance: At the same time, the value of the coefficient of educational motivation for completing a task decreased and lost statistical significance. However, this indicator has a statistically significant relationship with both indices of educational activity. Thus, educational motivation for completing tasks has a positive effect on involvement in educational activities. It has an inverse effect on the rate of disengagement. Thus, situational motivation (as well as general) has an indirect, but not direct, effect on student performance through such a mediator as educational experiences. The more independence a student demonstrates, the more difficulties he has in initiating and regulating educational activities, the higher his degree of involvement in active experiences and the higher his academic performance. The opposite effect also occurs: the more attention a student pays to external objects or subjects while carrying out educational activities, the higher the degree of his non-participation in the educational process, the lower his performance. At the same time, academic achievement depends more

on the student's perseverance, independence, self-confidence and self-control than on his mental abilities [Crystal et al.1994]. Therefore, educational motivation, as a rule, is one of the main factors affecting the achieved learning outcome.

The study showed that learning motivation has an indirect, rather than a direct, effect on academic performance through the student's educational activities. General educational motivation affects situational motivation, which, in turn, forms the student's average score through educational experiences. Thus, the student's activity depends on the goals he sets for himself while studying higher education and completing homework, and the extent to which he participates in the educational process [Jabbarov et al.,2020].

External stimuli contribute to educational practice. The indicators of a student who is involved, as well as not participating in the educational process, will be significantly lower than the indicators of a student who is involved in intrinsic motivation and active experiences. In the future, it is planned to include other variables that show a relationship with academic performance in the research model. Thus, it is worth monitoring the impact of indicators such as a student's value orientations, teaching style, including self-confidence and his integration into the student community on academic performance.

References

Aliyeva K., Aliyeva T., Jabbarov R., Mammadli İ. (2021). Students' values and their Mental Health During Pandemic. *Propósitos y Representaciones* . 9, 3:1183 ISSN 2307-7999 Current context of education and psychology in Europe and Asia e-ISSN 2310-4635 <http://dx.doi.org/10.20511/pyr2021.v9nSPE3.1183>

Ali, Shoukat, et al. "Factors contributing to the students' academic performance: A case study of Islamia University Sub-Campus." *American journal of educational research* 1.8 (2013): 283-289. <https://doi.org/10.12691/education-1-8-3>

Bennett, T. H., & Holloway, K. R. (2014). Drug misuse among university students in the UK: Implications for prevention. *Substance use & misuse*, 49(4), 448-455.

Corzo Zavaleta, J., Yon Alva, R., Vargas Vargas, S., Flores Medina, E., Principe Somoza, Y., & Andrade-Arenas, L. (2021). Relationship between stress and academic performance: An analysis in virtual mode. (IJACSA) International Journal of Advanced Computer Science and Applications, Vol. 12, No. 12, 2021

Crystal, D. S., Chen, C, Fuligni, A. J., Stevenson, H. W., Hsu, C, & Ko, H. et al. (1994). Psychological maladjustment and academic achievement: A cross-cultural study of Japanese, Chinese, and American high school students. Child Development, 65, 738-753.

Deci E.L., Vallerand R.J., Pelletier L.G., Ryan R.M.(1991). Motivation and education: The self determination perspective // Educational Psychologist. Vol. 26. №3 4. Pp. 325 346.

Deci E.L., Koestner R., Ryan R.M.(1998). Extrinsic rewards and intrinsic motivation: Clear and reliable effects // Unpublished manuscript. University of Rochester, 1998.

Deci E.L., Koestner R., Ryan R.M.(1998). Extrinsic rewards and intrinsic motivation: Clear and reliable effects // Unpublished manuscript. University of Rochester, 1998. 13. Малошюнок Н.Г.,

Goldberg M.D., Cornell D.G. (1998).The influence of intrinsic motivation and self concept on academic achievement in second and third grade students // Journal for the Education of the Gifted.. Vol. 21. № 2. Pp. 179 2057–9; 13.

Greene B.A. Miller R.B., Crowson H.M., Duke B.L., Akey K.L.(2004). Predicting high school students' cognitive engagement and achievement: Contributions of classroom perceptions and motivation // Contemporary Educational Psychology. Vol. 29. № 4. Pp. 462 482.

Jabeen Khan, M. (2018). Effect of perceived academic stress on students' performance.

Jang H., Kim E.J., Reeve J.(2012). Longitudinal test of self determination theory's motivation mediation model in a naturally occurring classroom context // Journal of Educational Psychology. Vol. 104. №4. Pp. 1175 1188.

Jabbarov Rashid Vakil. (2020). Mechanisms Of Socio-Psychological Adaptation Of Refugees. Journal of Interdisciplinary Debates, 1(01). <https://doi.org/10.29327/217379.1.1-3>

Jabbarov, R., Mustafayev, M., Aliyev, J., Nasibova, U., & Bayramov, M. (2023). Psychological issues of the relationship between self-esteem and aggression in students studying in different faculties. *Revista De Gestão E Secretariado*, 14(10), 17236–17253. <https://doi.org/10.7769/gesec.v14i10.2773>

Jabbarov, R., Valiyeva Y., Nasirova N., Kazimova K. (2020). The creation of feedback in training as a mobilizing factor for the cognitive activity of students. *Revista de Investigación Apuntes Universitarios*. 10(1), 207 -221

Mitchell Jr.J.V. (1992). Interrelationships and Predictive Efficacy for Indices of Intrinsic, Extrinsic, and Self Assessed Motivation for Learning // *Journal of Research and Development in Education*. Vol. 25. №3. Pp. 149 155. 12.

MacKinnon D.P. (1990). *Introduction to Statistical Mediation Analysis*. New York: Erlbaum, 2008

Pintrich P.R., De Groot E.V. Motivational and self regulated learning components of classroom academic performance // *Journal of Educational Psychology*. 1990. Vol. 82. №1. Pp. 33 40.

Ryan R.M., Deci E.L.(2000). Intrinsic and extrinsic motivations: Classic definitions and new directions // *Contemporary Educational Psychology*. 2000. Vol. 25. №1. Pp. 54 67

Ryan R.M., Deci E.L.(2000). Intrinsic and extrinsic motivations: Classic definitions and new directions // *Contemporary Educational Psychology*. 2000. Vol. 25. №1. Pp. 54 67.

Кордеева Т.О., Сычев О.А.(2012). Внутренние источники настойчивости и ее роль в успешности учебной деятельности // *Психология обучения*. № 1. С. 33–48.1-6

Семенова Т.В.(2015). Теоретико методологические подходы к изучению учебной мотивации: комплексный взгляд // *Мониторинг общественного мнения: экономические и социальные перемены*. № 6. С. 185–194.7],

Линевич В.В.(2020). Взаимосвязь конформизма и социально-психологических характеристик личности сотрудников полиции, формирующих мотивацию их поведения // *Психопедагогика в правоохранительных органах*. Том 25. № 1 (80)3, с.19-23].

Малошенок Н.Г., Семенова Т.В., Терентьев Е.А. Эффект самоотбора при формировании онлайн панели: опыт первого года лонгитюдного исследования студентов НИУ ВШЭ // Онлайн исследования в России: тенденции и перспективы / Под общ. ред. А.В. Шашкина, И.Ф. Девятко, С.Г. Давыдова. М.: ООО «Онлайнмаркетинг лидженс», 2016. С. 237–266.