ISCKMC 2022
International Scientific Congress «KNOWLEDGE, MAN AND CIVILIZATION»

RELATIONSHIP OF COGNITIVE MOTIVATION AND ACHIEVEMENT MOTIVATION AMONG DISTANCE LEARNING STUDENTS

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Abstract

The paper substantiates the relevance of the problem of the relationship between cognitive motivation and achievement motivation of students in distance learning conditions. The authors conducted a philosophical and psychological-pedagogical analysis of the problem of motivation and came to the conclusion that, one way or another, the achievement motivation is a purposeful desire for knowledge supplemented by responsibility for its development, adequate self-esteem and assessment of capabilities. Student motivation plays a decisive role in the conditions of distance learning, the hierarchy of motives for educational activities changes, but all of them remain. The most vulnerable is the motivation due to the social component – compensating work of the participants in the educational process is needed. In conditions of low external stimulation, cognitive motivation and achievement motivation will be the main active types of motivation in distance learning. Having obtained, processed and analyzed all the data on the study, we can say that there are differences between the compared groups in the levels of development of cognitive and social motives of students in different areas of training.

Keywords: Achievement motivation, cognitive motivation, distance learning, student, specialty, university

1. Introduction

The basis of the student's successful activity is a high level of motivation for this type of activity, which, in turn, is an important factor in the quality of training of future specialists. Society needs specialists with a high level of professionalism, entrepreneurship, initiative, creativity and creative abilities.

The issue of motivation for education has not lost its relevance since about half of the last century. This is caused by the changes in all aspects of life that are reflected in education. New knowledge of disciplines is constantly emerging, discoveries in the field of pedagogical psychology are used to improve the quality of education, technical innovations are actively being introduced into the educational process.

Distance learning becomes one of the parts of our lives – according to the Federal Law "On Education in the Russian Federation" No. 273-FZ dated 29.12.2012 (ed. 30.04.2021) (Article 13. General requirements for the implementation of educational programs, paragraph 2): "Various educational technologies are used, including remote educational technologies, e-learning in the implementation of educational programs". However, the analysis of literature in this field showed insufficient scientific research on the problem of motivation of students in e-learning.

It is necessary to create such psychological and pedagogical conditions where the motivations of students at all levels will be given sufficient attention thus ensuring the qualitative implementation of the FSES requirements. Most researchers of the problem of educational motivation agree that the predominance of internal motives is preferable. We will also agree with Gordeeva T.O., who writes that the most favorable "type of motivational functioning" is the one where "internal motives (cognition and achievement) are highly expressed and external ones are significantly lower" (Gordeeva, 2016, p. 39). The relationships of achievement motivation and cognitive motivation in the conditions of distance learning were not studied before.

The problem of motivation is strongly focused in the scientific and research literature: scientists such as Gordeeva, Ilyin, Maslow, Heckhausen devoted their works to this topic. Besides, it is worth noting the motivation for educational activities as a research problem – the structure of motivation for educational activities developed by Bozhovich and Markova served the basis of this study. The Psychology of Achievement Motivation by Heckhausen and the Psychology of Achievement Motivation by Gordeeva are widely recognized works in the field of achievement motivation.

2. Problem Statement

Thus, there are certain relationships between cognitive motivation and the achievement motivation, which shall be taken into account in the psychological and pedagogical support of distance learning. The relationships of cognitive motivation and achievement motivation are different for different fields of study, therefore, the psychological and pedagogical support of distance learning for them should take this into account. In connection with all the above, we consider the problem of this study to be relevant and requiring the study and popularization of ways to resolve it by the professional community. To study the relationship between cognitive and achievement motivation, it is necessary, first of all, to

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identify the level of expression of individual social and cognitive motives and conduct a comparative analysis.

3. Research Questions

Having appeared at the beginning of the twentieth century, the concept of "motivation" currently has two types of definitions: the first is structural, where motivation is a combination of factors and motives; in the second definition, motivation is considered as dynamic education. Having analyzed various approaches to the problem of motivation, E.P. Ilyin in his monograph *Motivation and Motives* defines motivation as a dynamic process of motive formation (Ilyin, 2011). Motive (Fr. *motif*) is an incentive. It is a complex psychological formation that the subject himself must build. The formation of it from the outside is impossible: under the influence of education, interorialization of norms and rules, which in this case will act as motivators of activity, is possible (Dokhtukaeva et al., 2021).

The study at a university is not mandatory in our country, so the very desire to continue training reveals an individual with developed motivation. Ilyin (2011) identifies the following motives for entering the university: desire refers to student youth, social significance of the profession and its wide scope of application, compliance of the profession with interests and inclinations, its creative capabilities. There are different types of motivation during the educational process depending on the reason for entering the university.

Below we will discuss in more detail the different types of motivation characteristic of educational activities. Let us consider the classification of motives of educational activities by Yakobson:

1. The "negative" type of motives is characterized by the fact that education is caused by the realization of possible troubles, if such education is not carried out. In this case, there is no need to gain knowledge or increase personal prestige, and with the insufficient development of the strong-willed sphere, the situation may end with the student dropping out of the educational institution.

2. The socially conditioned motive is also not related to educational activities, but has a positive impact on the study. The sense of duty makes university education attractive due to the fact that the subject is aware of its importance for the chosen profession. It is characterized by greater perseverance, patience, and responsibility.

3. Learning based on the desire to learn a new, interest in the very process of educational activity. This is the best option when a student enjoys the acquired knowledge (Williams et al., 2006).

This classification is widespread in the scientific literature and formed the basis for many subsequent theories. However, it has its drawbacks: the scientist considered three aspects of the doctrine: value, purpose and orientation, and was not guided by a single principle. Perhaps this reflects the fact that educational activities are based on different motives (Ucar & Kumtepe, 2016).

Back in 1954, A. Maslow wrote about the polydeterminism of any human behavior, i.e. about its complex motivation (Maslow, 2017). Within his theory, any behavior is motivated by several or all basic needs. The view of many of his contemporaries, who are of the opinion that one particular motive gives rise to one certain action, he called "naïve". In the future, the provision on the influence of many motives on human activity was firmly established in the scientific community. Educational activities really unite many motives of different orientations, in addition, due to their length over time, different motives can

replace each other, change roles and status. Taking the thesis on the polymotivation of educational activities, it is necessary to distinguish which motives act in a given activity and how they interact with each other. Bozhovich (2012) writes that:

> The mark as a motive for educational activity embodies many needs at once – not only the need for knowledge, but also the fear of being rejected by relatives or friends in case of poor academic performance, prestige of good performance and many others. He identified two groups of motives: the first is directly related to the learning process, generated by the educational activity itself, the second group of motives is outside the educational process, and is generated by "the entire system of relations between a child and the surrounding reality. (p. 65)

The resulting system not only highlights the main motives of learning, but also emphasizes their dynamism. In 1972 Bozhovich writes that according to the study, both categories of motives, cognitive and social, are present in any human activity, both in the educational and other spheres. She emphasizes that it is important not only to have a certain motive, but also its content. In the case of school age, the layer of social motives is the area where educational work should be directed, in adulthood it is the assumption of self-education.

According to Gordeeva (2016), the achievement motivation is characterized by the desire for the best possible performance of activities aimed at a specific result, to which the success criterion can be applied. The success criterion implies some assessment standards and the ability to compare with other results.

The educational activity is achievable: it is aimed at a specific result, which is subject to evaluation according to a single system, the responsibility for the result lies with the subject of the educational activity. Heckhausen's (2001) *Psychology of Achievement Motivation* presents the results of various studies, which show that subjects motivated for success are better at school and university, more active in finding new information, prefer to be personally responsible for the performed activities.

In the context of distance learning, the structure of the motivational sphere of a student undergoes some changes. Its main components remain, but their hierarchy changes. Let us consider below the changes in the different groups of motives.

When switching to distance learning, the student finds himself in a situation where he takes a leading role in his education. The main driving force is his motivation (Afanasyeva, 2017). In the conditions of distance learning, this motivation remains the most stimulated by the educational institution, since a system of assessments, deadlines for the presentation of material, often ratings, is preserved. For those who find themselves in remote conditions this may cause considerable discomfort and increase anxiety (Gamzaeva, 2018). In distance learning, the material must be reformulated for the conditions of this training, the form of delivery must be different from the classroom. There should be more focus on the activity of students themselves, on strengthening feedback from all participants in the process. Activities must remain social in order to engage a broad variety of social motives. In these conditions, it is important to create positive motives that will the study valuable and meaningful.

4. Purpose of the Study

The purpose of the study is to select a set of methods to identify the level of expression of individual social and cognitive motives.

5. Research Methods

The following methods were used during the diagnostic study: observation; survey on how learning was affected by the transition to distance learning; methods of mathematical statistics. The study was conducted in 2021 and covered second-year students of Ingush State University and Dagestan State Agrarian University named after Dzhambulatov. The study involved 34 students from each university.

6. Findings

The study was conducted in three stages.

The first stage was the study, generalization and systematization of scientific and research literature on the research problem.

The second stage – experimental work – included the transition of the diagnostic technique into an online format for use in pandemic conditions and the experiment itself.

The third stage was the analysis and synthesis of theoretical and experimental study.

The diagnostic technique *Motivation for Educational Activities: Levels and Types* by I.S. Dombrovskaya was chosen for the study. The technique was transformed into an online format in Microsoft Forms.

Let us give the results of diagnostics according to the methodology of Dombrovskaya *Motivation for Educational Activities: Levels and Types*. The first three lines of each table correspond to the levels of development of cognitive motivation: level of broad cognitive needs, narrow and actual cognitive motives of learning, motive of self-development or personal motives for education. The last three lines correspond to the social motivation of educational activities: level of broad social motives or motive of obligatory or forced learning, narrow social motives, motive of cooperation or sociality of knowledge.

Table 1 shows the motive groups and the number of IngSU students with high, middle and low level of this motive.

Table 1. Distribution of IngSU students by the level of cognitive and social motivation

IngSU motives	High level		Middle level		Low level	
	People	%	People	%	People	%
Broad cognitive	16	47.04	17	49.98	1	2.94
Narrow and actual cognitive	13	38.22	19	55.86	2	5.88
Self-development	27	79.38	7	20.58	0	0
Broad social	23	67.62	10	29.41	1	2.94
Narrow social	21	61.74	13	38.22	0	0
Cooperation	19	55.86	15	44.11	0	0

The tables show that IngSU students generally have a high level of social motives, which is characteristic of the "person-person" profile. Moreover, 27 (79.38 %) people have a high level on the "self-development" scale, which suggests that learning is considered as a factor contributing to personal growth. In terms of "broad cognitive motives", 17 (49.98 %) people have a middle level, one person with a low level, which characterizes the depth of their interest in new knowledge. "Narrow and actual cognitive motives", where the middle level also prevails, confirm the level of desire for independent knowledge.

The high level of broad social motives (67.62 % of IngSU students) suggests that the respondents have a great awareness of the social need, duty, desire to fulfill their duty. Broad social motives may also include the desire to prepare well for the chosen profession.

Thus, social motives and the motive for self-development turned out to be dominant among IngSU students.

Table 2 provides similar information on motive groups and the number of DSAU students with different levels of motive expression.

Table 2. Distribution of DSAU students by the levels of cognitive and social motivation

DSAU motives	High level		Middle level		Low level	
	People	**%**	**People**	**%**	**People**	**%**
Broad cognitive	18	52.94	15	44.11	1	2.94
Narrow and actual cognitive	12	25.28	16	47.04	6	17.64
Self-development	21	61.74	11	32.34	2	5.88
Broad social	16	47.04	17	49.98	1	2.94
Narrow social	15	44.11	13	38.22	6	17.64
Cooperation	10	29.41	22	64.68	2	5.88

Technical students are characterized by a large number of options of the levels presented. The presence of more people with a low level of motives is different for this group of students. Social motives for technical students are not leading. The largest number is students with a high level on the "self-development" scale, similar to IngSU students.

Table 03 shows the average values of cognitive motives and their distribution for two universities.

Table 3. Statistics of cognitive motivation subgroups

University	Broad cognitive motives		Narrow and actual cognitive motives		Self-development	
	Average	**D**	**Average**	**D**	**Average**	**D**
ChSU	2.88	0.3	2.67	0.31	3.23	0.24
DSAU	2.98	0.26	2.52	0.51	3	0.41

The purpose of this work is to search for relationships of cognitive motivation and achievement motivation in order to identify the relationship of cognitive motives among students of IngSU and DGAU. The study utilized the Pearson criterion. Correlation values for each university and for students as a whole were calculated separately. So, at a significance level of 0.01, the greatest relationship of IngSU students' motives is observed between broad cognitive motives and the motive of self-development

(r=0.72). The relationship of broad cognitive with narrow cognitive motives (r=0.59) and narrow cognitive motives with the motive of self-development (r=0.53) is moderate, but higher than that of DSAU students. This may be explained by the fact that the mastering of the profession of a teacher-psychologist requires continuous expansion of the outlook and the desire for new knowledge.

Thus, at a significance level of 0.01, students of the DSAU have a strong relationship between narrow cognitive motives and the motive of self-development (r=0.72), which indicates the attitude to study as a way of self-improvement, while the presence of an average relationship of broad cognitive motives with narrow cognitive (r=0.47) and moderate relationship of broad cognitive motives with the self-development motive (r=0.39) may suggest that knowledge is certainly important for students, but they choose those that have practical significance for them.

7. Conclusion

Thus, we can conclude that there are differences in the levels of development of cognitive and social motives of students in different fields of study between the compared groups. We also see that 44% of IngSU students have the predominant cognitive motivation, 52.9 % of DSAU students are characterized by the predominance of cognitive motivation. Students of a technical university are characterized by a large dispersion of the levels of all the studied motives. Motivation for success is more characteristic of the pedagogical field of study, in the case of technical students there are representatives with both low and very high levels of this motivation. The relationship between different types of motivation is present and depends on the field of study. The assumption of a high degree of relationship between cognitive motivation and achievement motivation in distance learning conditions was partially confirmed: there are relations between these motivations, but they are not high. The relationship between cognitive motivation and motivation for success is moderate and positive, while the relationship between cognitive motivation and motivation for avoiding failure is low and negative.

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