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ANALYSIS OF THE EMPIRICAL RESULTS OF THE STUDY OF THE FEATURES OF PERSONAL SELF-EFFICIENCY OF MODERN STUDENTS

Abstract

The article presents the results of an empirical study of the characteristics of personal self-efficacy of university students. Socio-economic and cultural factors provoke an increase in the demands of society for young people: it is necessary to obtain a high level of professional knowledge, skills and abilities today, but not enough. A modern graduate should have such characteristics as activity, competitiveness, stress resistance, purposefulness and success in all spheres of life.

Therefore, one of the urgent problems today is the problem of improving the personal self-efficacy of students.

To study the features of students' personal self-efficacy, the following methods were used: methods of collecting empirical data: the test method - the scale of general self-efficacy of R. Schwartz, M. Yerusalem; the scale of self-efficacy (SES) Scherer, Maddox; the short scale of self-control of J. Tengni, R. Baumeister, A.L. Boone; questionnaire of self-organization of E.Y. Mandrikova's activity; scale of academic motivation (sokr. SHAM, Eng. The Academic Motivation Scale, abbreviated AMS); K. Riff scale of psychological well-being. The sample of subjects was made up of students of the University "Turan", KazNPU named after Abaya G. Almaty and Suleiman Dimerel University of Kaskelen.

Keywords: personal self-efficacy, university students, self-organization, academic motivation, psychological well-being.

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АНАЛИЗ ЭМПИРИЧЕСКИХ РЕЗУЛЬТАТОВ ИССЛЕДОВАНИЯ ОСОБЕННОСТЕЙ ЛИЧНОСТНОЙ САМОЭФФЕКТИВНОСТИ СОВРЕМЕННЫХ СТУДЕНТОВ

Аннотация

В статье представлены результаты эмпирического исследования особенностей личностной самоэффективности студентов вуза. Социально-экономические и культурные факторы провоцируют возрастание требований социума к молодым людям: получить высокий уровень профессиональных знаний, умений и навыков сегодня необходимо, но недостаточно. Современный выпускник должен обладать такими характеристиками, как активность, конкурентоспособность, стрессоустойчивость, целеустремленность и успешность во всех жизненных сферах.

Поэтому одной из актуальных на сегодняшний день является проблема повышения личностной самоэффективности студенческой молодежи.

Для исследования особенностей личностной самоэффективности студентов были использованы следующие методики: методы сбора эмпирических данных: метод тестов – шкала общей самоэффективности Р. Шварца, М. Ерусалема; шкала самоэффективности (SES) Шерер,

Мэддокс; краткая шкала самоконтроля Дж. Тэнгни, Р. Баумайстера, А.Л. Буна; опросник самоорганизации деятельности Е.Ю. Мандриковой; шкала академической мотивации (сокр. ШАМ, англ. The Academic Motivation Scale, сокр. AMS); шкала психологического благополучия К. Рифф. Выборку испытуемых составили студенты университета «Туран», КазНПУ им.Абая г. Алматы и университета Сулеймана Димереля г. Каскелена.

Ключевые слова: личностная самоэффективность, студенты вуза, самоорганизация, академическая мотивация, психологическое благополучие.

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ҚАЗІРГІ СТУДЕНТТЕРДІҢ ЖЕКЕ ӨЗІНДІК ТИІМДІЛІГІНІҢ ЕРЕКШЕЛІКТЕРІН ЗЕРТТЕУДІҢ ЭМПИРИКАЛЫҚ НӘТИЖЕЛЕРІН ТАЛДАУ

Аңдатпа

Мақалада университет студенттерінің тұлғалық өзіндік тиімділігінің ерекшеліктерін эмпирикалық зерттеудің нәтижелері келтірілген. Әлеуметтік-экономикалық және мәдени факторлар қоғамның жастарға деген талаптарының өсуіне себеп болады: бүгінгі күні кәсіби білімнің, дағдылардың жоғары деңгейін алу қажет, бірақ жеткіліксіз. Заманауи түлек белсенділік, бәсекеге қабілеттілік, стресске төзімділік, мақсаттылық және өмірдің барлық салаларында табысқа жету сияқты қасиеттерге ие болуы керек. Сондықтан бүгінгі таңдағы өзекті мәселелердің бірі студент жастардың тұлғалық өзіндік тиімділігін арттыру болып табылады. Студенттердің тұлғалық өзіндік тиімділігінің ерекшеліктерін зерттеу үшін келесі әдістер қолданылды: эмпирикалық мәліметтерді жинау әдістері: тест әдістері- Р. Шварц, М. Ерусалемнің жалпы өзіндік тиімділік шкаласы; Шерер, Мэддокстің өзіндік тиімділік шкаласы (SES); өзін-өзі бақылаудың қысқа шкаласы Дж.Тангни, Р.Баумейстер, А.Л. Бун; Е.Ю. Мандрикованың іс-әрекетте өзіндік ұйымдастыру сауалнамасы; академиялық мотивация шкаласы (қысқ. АМШ, ағыл. The Academic Motivation Scale, abb. AMS); К. Риффтің психологиялық әл-ауқат шкаласы. Сыналушылар тобын «Тұран» университетінің, Алматы қаласындағы Абай атындағы ҚазҰПУ және Қаскелең қаласындағы Сүлеймен Димерел университетінің студенттері құрады.

Түйінді сөздер: тұлғаның өзіндік тиімділігі, университет студенттері, өзін-өзі ұйымдастыру, академиялық мотивация, психологиялық салауаттылық.

Introduction

Society more than ever needs highly effective people who are able to correctly assess both the results of their activities and their own capabilities. The subjective attitude to the performed activity is realized in a person's appeal to internal resources, development potentials, possibilities of choosing means of action, substitution of goals and building a certain strategy of activity, which, ultimately, is determined by the self-efficacy of the individual.

In this regard, one of the leading goals of modern education is to develop students' interest and need for self-change, creative self-development, actualization of their potential. This is achieved through the formation of professional consciousness and self-awareness, which determine not only the level of general professional competence, but also the basis for the development of personal self-efficacy, creative and reflective capabilities in modern conditions of social development.

Literature review

Self-efficacy is not an established quality, because it varies depending on the availability of certain skills necessary for various activities, on the external circumstances of the course of

activity, on the ideas of the subject of activity about the abilities of other people, especially if they can be considered more skillful, on judgments about their own capabilities, as well as on the physical condition (Belykh T. V., 2015).

R.L. Krichevsky defines self-efficacy as the conviction of people in their abilities to mobilize motivation, intellectual resources, behavioral efforts to control events that affect their lives (Krichevsky R.L., 2015).

Thus, mental processes activate efficiency and through them the conviction of one's own effectiveness affects a person.

J. Maddux in his work "Self-Efficacy: The Power of Believing You Can" speaks about the importance of self-efficacy for the overall psychological well-being of the individual (Maddux, 2012).

Psychological qualities that characterize a person's relationship with himself and components: self-regulation, self-acceptance, self-actualization, personal growth, autonomy, self-control, self-efficacy - are an indicator of the psychological health of the individual (Galoy N.Yu., Likhacheva E.V., Nikolaeva L.P., Ognev A.S., 2020).

E. Deci and R. Ryan substantiate the model of the gradual formation of personal autonomy through the internalization of motivation and the corresponding experience of control over behavior: from purely external motivation through the stages of introjection, identification and integration to internal motivation and autonomy. "The mechanism of internalization in the concept of E. Deci and R. Ryan consists in switching the external driving force and means of behavior into the internal" (Gordeeva T.O., 2010).

People with a high level of self-efficacy are characterized by a high level of motivation, a clear vision of the goal and perseverance in overcoming barriers standing in the way of achieving it (Maddi S., 1998).

Thus, self-efficacy provides the basis for personal motivation, self-control, self-regulation, success and a sense of well-being.

Despite the fact that much attention has been paid to self-efficacy as a subject of research in psychology for more than 40 years, many aspects of this phenomenon are insufficiently studied. The problems of self-efficacy at the student age have not been sufficiently studied, in particular, the relationship of self-efficacy with academic performance, self-organization of activities, with psychological well-being, the structure of personal self-efficacy (see Figure 1).

Our work examines the psychological features of the development of personal self-efficacy of self-efficacy, which reflect all aspects of its structure: the level, generalization, strength and activation of mental processes - motivational, regulatory and affective. In the dimension of generalization, the features of self-organization of students' activities were investigated.

In measuring the level of complexity of the tasks being solved, the structure of the specific self-efficacy of overcoming difficult situations by the subjects at the stage of early youth was investigated. In the measurement of strength, psychological features affecting the manifestation of self-efficacy were considered.

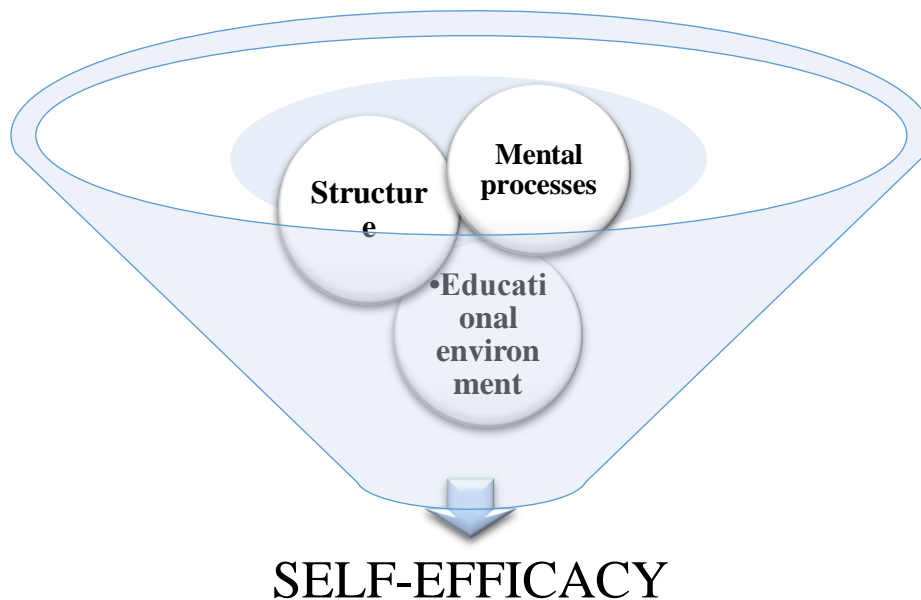


Figure 1. Statement of the research problem

In the study, we set a goal – to study the phenomenon of self-efficacy and the features of its development as a systemic personality quality during the student period, as a resource for his learning and success in the labor market and in life.

The subject of the study was the psychological features of the development of personal self-efficacy, reflecting its structure during the period of study at the university.

The main hypothesis of the study was the assumption that the development of personal self-efficacy as a systemic quality in students is associated with the main mental processes: motivational, regulatory and affective.

Research methods and methodology

The following methods and techniques were used to solve the set tasks and verify the proposed research hypothesis:

- theoretical: analysis of scientific literature reflecting the range of issues on the research problem, systematization, generalization;
- methods of collecting empirical data: the test method – the scale of general self-efficacy by R. Schwartz, M. Yerusalem; the scale of self-efficacy (SES) by Scherer, Maddox; the short scale of self-control by J. Tengni, R. Baumeister, A.L. Boone; questionnaire of self-organization of E.Y. Mandrikova's activity; scale of academic motivation (sokr. SHAM, Eng. The Academic Motivation Scale, abbreviated AMS); K. Riff scale of psychological well-being.
- methods of qualitative analysis and interpretation of research results;
- methods and procedures of statistical analysis – statistical package SPSS 23.0. for quantitative and qualitative interpretation of data (evaluation of descriptive statistics, nonparametric criteria: Mann-Whitney U-test, Kraskel-Wallis H-test, correlation analysis, cluster analysis).

If we give a description of the study sample, they were made up of students of universities in Almaty.

The student period is considered in psychology to be the central period of the formation of a person, personality as a whole. Students are considered in the framework of the psychology of mature ages. B.G. Ananyev was one of the first to consider this period of human life as an independent age category. He defines this age as a transitional stage from maturation to maturity and defines it as late adolescence – early adulthood (Ananyev B.G., 1974).

Becoming a student, a person actively acquires knowledge, practical professional skills, which requires the implementation of internal psychological resources of the individual.

Professional self-determination is a dynamic process. A student who has chosen one direction of development can be realized in others.

This age is considered the "most decisive", since it is this period that determines the future of a person, is a time of very active, intensive work on oneself. According to the definition of I.A. Zimnaya, students include people who purposefully, systematically acquire knowledge and professional skills, are distinguished by the highest educational level, the most active consumption of culture and a high level of cognitive motivation (Zimnaya I.A., 2000).

If we analyze the social situation of the student's personality development, it can be seen that at the student's age, an internal position is actualized with an attitude towards achieving a global goal - a life strategy, plans are being made to achieve it. The difficulty of choosing self-determination is fueled by the fact that the authoritative adult environment doubts the correctness of their recommendations. That is, there is a moment of independent decision-making and responsibility for them by a young person, in which the task of becoming a personality as a subject of self-development is expressed.

L.S. Vygotsky considered life plans as an indicator of a person's mastery of his inner world and as a system of adaptation to reality, associating with them a "target" regulation of a fundamentally new type (Vygotsky L.S., 1983). At a certain period of life, the need for work (the desire to be financially independent of parents) becomes the main need of life. For another age group, work can act as a means of satisfying a person's need for public recognition, prestige, a way of self-expression, achieving recognition by society of her individuality (Abulkhanova-Slavskaya K.A., 1991).

This model includes cultural aspects of society and is focused on timeliness, sensitivity of social success (Belyanskaya T. E. 2020).

On the other hand, students appear as a period of age crisis – adaptation to new social roles that consolidate the position of the individual in society, to personal work on oneself, which is based on a new degree of self-responsibility, to new requirements of self-organization, so necessary for the successful and correct realization of one's capabilities in the future, to new conditions of educational work that differ from school not only in mental threshold, but also in the most important the student's own understanding that continuing education is an important social, moral and psychological value (Penkova M.S., Panfilova Yu.S., 2019)

In this regard, this age group is the most interesting for the study of psychological features of the development of personal self-efficacy.

The study was conducted on the basis of 3 universities:

- KazNPU named after. Abaya
- Suleiman Demirel University, SDU
- University "Turan"

The study involved 270 students (41% of boys and 59% of girls) from the 1st to the 4th year and a master's degree in psychology, management, marketing, law, world economy, etc. (see Figure 2 and Table 1).

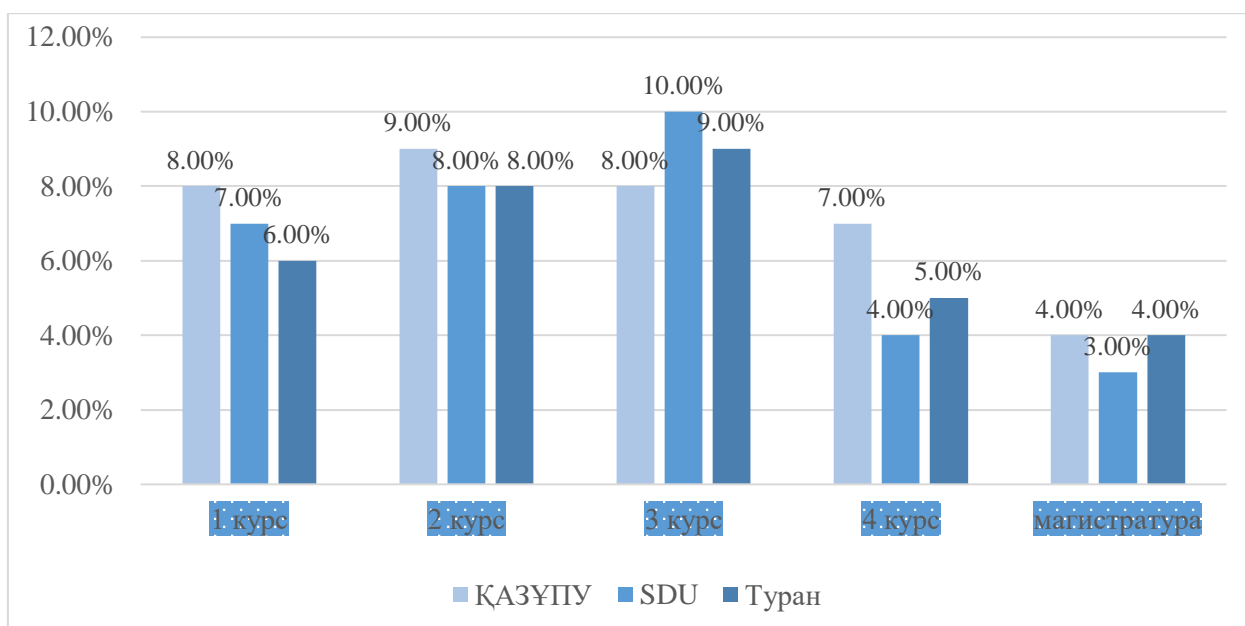


Figure 2. Distribution of students by courses and universities (%)

These data can be presented in the form of a table (Table 1).

Table 1. Distribution of the sample of subjects by courses and universities (%)

	KazNPU	SDU	Turan	Итого
1 course	8	7	6	21
2 course	9	8	8	25
3 course	8	10	9	27
4 course	7	4	5	16
Master's Degree	4	3	4	11
Total	36	32	32	100

Histogram 2 and Table 1 show the following distribution of students by university:

- 36% - студенты KazNPU;
- 32% - студенты SDU;
- 32% - студенты Turan.

According to the training courses, the following distribution was obtained:

- 21% students of 1 course;
- 25% students 2 course;
- 27% students 3 course;
- 16% students 4 course;
- 11% Master's.

The average age of the respondents was 20 years (see Table 2), the minimum age was 16 years (0.3% of the total sample), the maximum age was 58 years (0.1% of the total sample).

Table 2. Age features of the sample

Descriptive statistics					
	N	minimum	maximum	average	Standart deviation
age	270	16	58	20,24	5,668
N valid ones (according to the list)	270				

Respondents were involved in the study according to subjective criteria - accessibility, typicality and equal representation.

The study aimed at studying the psychological characteristics of the development of personal self-efficacy of university students was conducted in three stages.

At the first stage of 3 universities of faculties. Testing was carried out using the Google Forms platform, since all universities and training centers worked online during the pandemic. Google Forms is an online resource, part of the Google Drive office toolkit that allows you to create surveys and conduct testing.

The service is cross—platform - you can use it on a computer, tablets and smartphones. The data is synced correctly. Using this platform made it possible to conduct research anonymously and quickly enough, since any student could easily participate in the study at a convenient time for him using his smartphone. Participation in the testing does not require registration, account activation, just a link to the survey and the ability to access the Internet.

Another important advantage of testing using Google Forms is that a research participant cannot submit a questionnaire until he answers all the questions, if he accidentally skips one or more questions, the platform will return him to the unanswered questions. This is very convenient when conducting research, because it allows you to reduce the number of rejected research methods that are not completely filled out.

At the second stage, data obtained through testing were collected and studied, summary tables were built, data processing strategies were developed.

At the third stage, data from the entire sample population was analyzed to track general trends and improve the reliability and validity of the results. In addition, correlation analysis of data was performed to identify general and particular patterns. Mathematical data processing was performed using the statistical package SPSS, version 23.0.

Based on the object, subject, purpose and hypothesis of the study, as well as the theoretical and methodological basis of the study, the following diagnostic units were identified (see Table 3):

- Self-efficacy
- Motivational processes
- Regulatory processes
- Affective processes

Table 3. Diagnostic testing units

Selected units	Variables
Self-efficacy	<ul style="list-style-type: none"> • self-efficacy in the subject activity • self-efficacy in the field of interpersonal communication • overall indicator
Motivational processes	<ul style="list-style-type: none"> • cognitive motivation • achievement motivation • self-development motivation • self-esteem motivation • introjected motivation • external motivation
Regulatory processes	<ul style="list-style-type: none"> • self-control • regularity • purposefulness • perseverance

	<ul style="list-style-type: none"> • fixing • self-organization • focus on the present
Affective processes	<ul style="list-style-type: none"> • positive relationships • autonomy • environment management • personal growth • goals in life • self-acceptance • psychological well-being

Statistical data processing is a necessary stage for the causal explanation of psychological phenomena. There is a certain sequence of actions to obtain meaningful information: sampling, preprocessing, transformation, application of the method to obtain knowledge, interpretation (A. D. Heritov, 2013).

The following methods were used for quantitative data processing: descriptive statistics (tabular representation, graphical representation, average value, frequency analysis), nonparametric criteria: Mann-Whitney U-test, Kruskal-Wallis H-test, correlation analysis (r-Spearman's), hierarchical cluster analysis with dendrogram construction (see Figure 4).

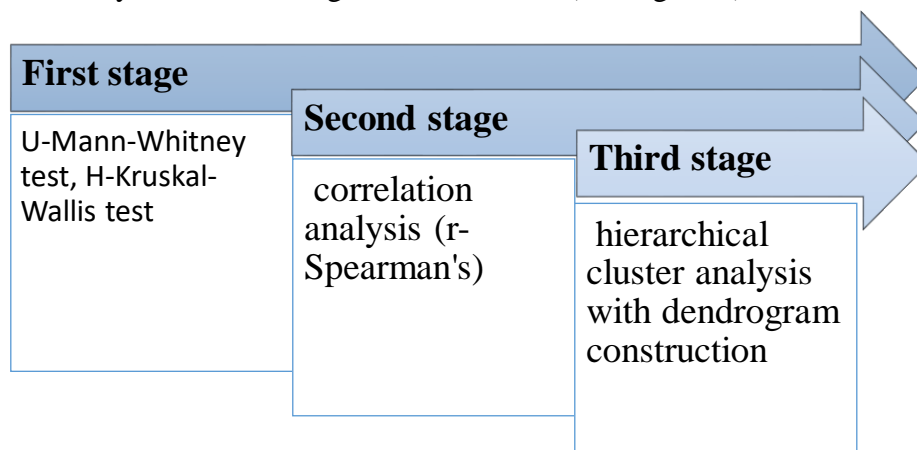


Figure 4. Stages of statistical data processing

Results and discussion

At the first stage of the empirical research, we analyzed the motivational processes affecting the development of personal self-efficacy.

The school of Academic motivation is a methodology for the diagnosis of motivation, which allows to evaluate seven qualitatively different types of educational motives characteristic of students:

- three types of internal motives: the motive of cognition, achievement and self-development (improvement),
- three types of external motives: external (the desire to perform activities in order to avoid problems), introjected (determined by the frustration of the need for autonomy and manifested in the experience of a sense of duty and shame) and self-esteem motivation.
- amotivation (lack of interest in learning activities).

Table 4 and Figure 5 present descriptive statistics obtained by analyzing the results of the academic motivation scale (sok. SHAM, Eng. The Academic Motivation Scale, abbreviated AMS).

Table 4. Descriptive statistics of SHAM

	Average	Deviation	Variance
Cognitive motivation	15,591	3,8701	14,978
Motivation for self-development	15,255	3,6307	13,182
Achievement motivation	14,700	4,1653	17,350
Self-esteem motivation	14,664	4,1514	17,234
Introjected motivation	12,691	5,1201	26,216
External motivation	10,909	4,9891	24,891
Motivation	8,973	4,5200	20,430

The arithmetic mean values of students' academic motivation are presented in the following figure (Figure 5).

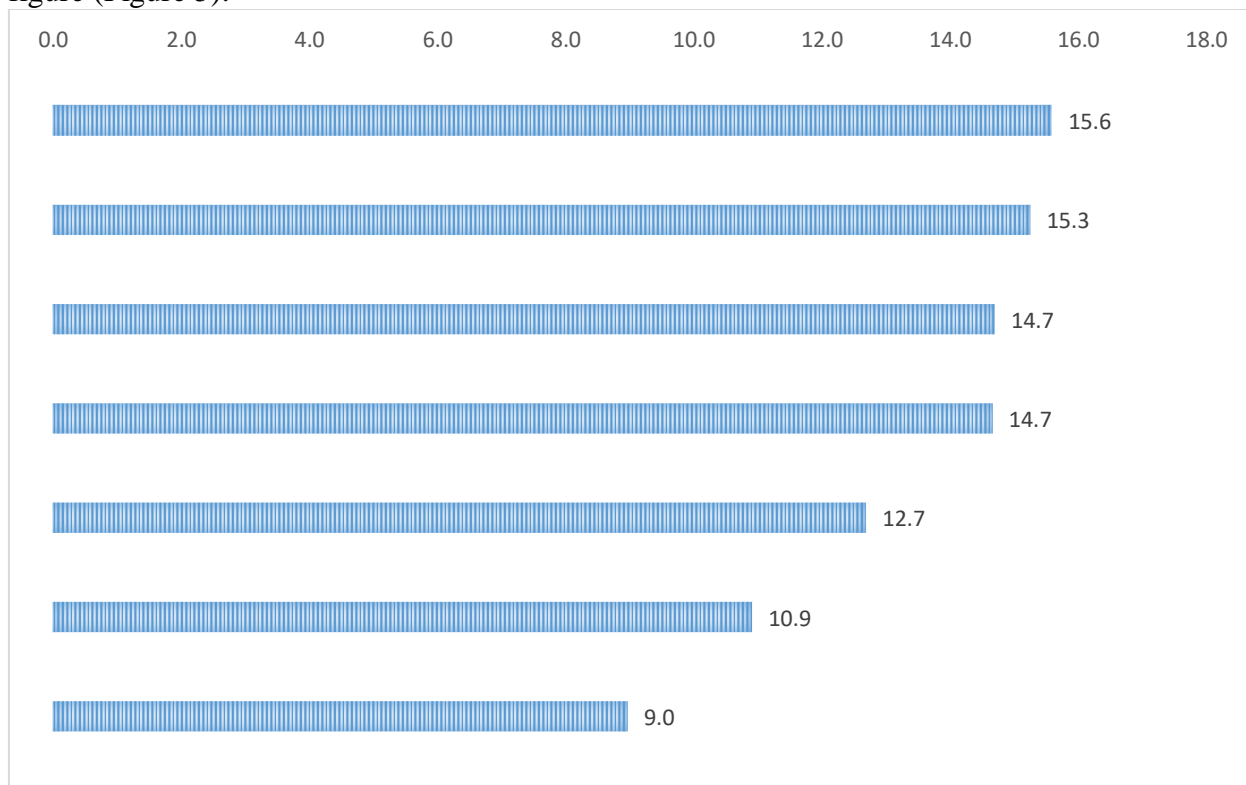


Figure 5. Arithmetic mean values of students' academic motivation'

It can be seen from Table 4 and Figure 5 that internal motivation prevails among students (46.5%): the motive of cognition (cf. arif.=15,6), achievements (cf. arif.=14,7) and self-development (cf. arif.=15,3). The percentage distribution of these motives is presented in Table 5:

achievement motivation prevails in 51.9% of students, cognitive motivation prevails in 44.7% of students and self-development motivation dominates in 42.8% of students;

Table 5. Frequency table of internal motivation of students (%)

	High indicator	medium indicator	low indicator
Cognitive motivation	44,7	30	25,3
Motivation for self-development	42,8	30	27,2
Achievement motivation	51,9	30	18,1
Internal motivation	46,5	30	23,5

18.1% of students have low achievement motivation, 25.3% of students have low cognitive motivation and 27.2% of students have low self-development motivation.

Indicators of internal motivation fall into the zone of average values.

The results of the frequency analysis of external motivation are presented in Table 6.

Table 6. Frequency table of external motivation of students (%)

	High indicator	medium indicator	low indicator
Self-esteem motivation	38	34,5	27,5
Introjected motivation	47,3	28,1	35,4
External motivation	30	24,6	45,4
External motivation	38,4	29,1	36,1

Extrinsic motivation prevails in 38.4% of students, however, it is important to note that the average indicator is most pronounced in self-esteem motivation (cf. Arif.=14.7), which corresponds to the average level of development of this motivation. Indicators for introjected (cf. arif.=12.7) and external (cf. arif.=10.9) motivations also correspond to the sample averages, although they are lower in the hierarchy in relation to other motives.

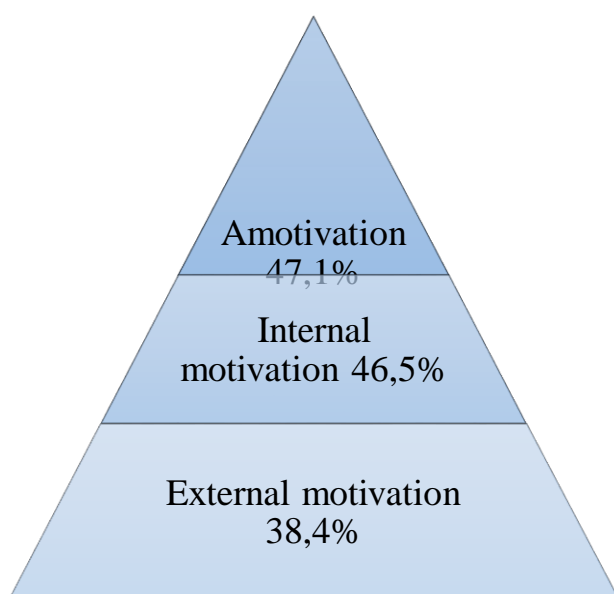
The results of the frequency analysis of motivation are presented in Table 7.

Table 7. Frequency table of students' amotivation (%)

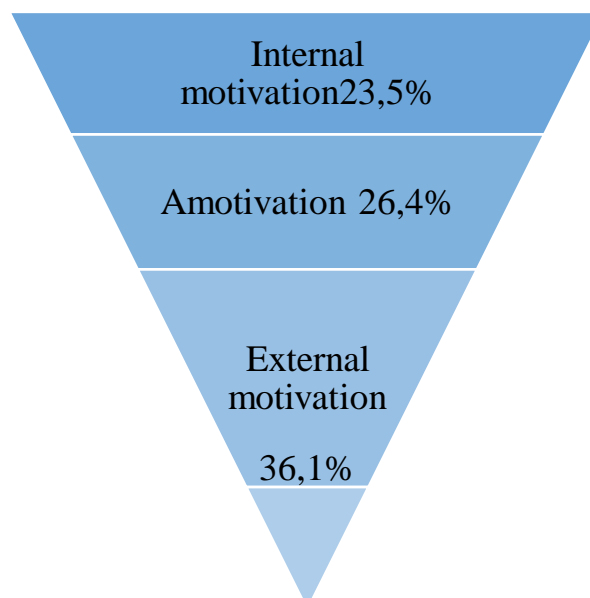
	High indicator	medium indicator	low indicator
amotivation	47,1	29	26,4

Table 4 and Figure 5 show that students have an average score of 9 points, which indicates a high level: 47.1% of students are amotivated, only 26.4% have low indicators of amotivation.

Frequency analysis made it possible to assess the contribution of each motive to the structure of academic motivation and to consider the ratio of external, internal motivation and amotivation (see Figure 6).



a) motivation dominates



b) reduced motivation

Figure 6. Hierarchy of motivation types among students (%) The results show that 47.1% of students lack motivation. It should be noted that according to E. Desi and R. Raina, the motivational subsystem manifests itself in the absence of activity, lack of interest and a sense of meaningfulness of educational activity. Thus, the following features prevail in the majority of the studied students:

- there is no relationship between behavior and learning outcomes in their perception;
- they have a low level of perceived competence, a low level of self-esteem and a low level of self-determination (self-efficacy);
- they are characterized by a sense of helplessness, incompetence, uncontrollability, because students underestimate their own ability to self-determination (self-efficacy);
- emotions are blocked.

The second place is occupied by the subsystem of internal motivation, it prevails among 46.5 students. The internal motivational subsystem is based on the need for competence (self-efficacy) and self-determination. That is, the second group of students is characterized by such personality traits as:

- decision-making and effective management of your motives;
- internal perceived locus of causality;
- a sense of self-determination as a reward;
- a high degree of perceived self-competence (self-efficacy) and a high level of self-esteem;
- the dominant role of internal signals in the identification of emotions. Emotions determine behavior along with information coming from the environment and from memory. There is an intuitive and phenomenological assessment of emotions, which are considered as a source of information when choosing behavior.

The third group of students (38.4%) is dominated by external motivation, which indicates such behavioral features as

- the tendency to respond to external rather than internal stimuli;
- feelings that accompany activity rather than spontaneously manifest in it;
- externally perceived locus of causality;
- behavior controlled by reward, not by a person's own choice;
- a lower level of self-esteem than that of internally motivated students;
- automatic and automated behavior;
- emotions are more related to the external situation.

To study the internal structure of the relationships among the motives, intercorrelations were calculated, the data obtained are presented in Table 8 and Figure 7.

Cognitive motivation (PM) is associated with 3 positive and one negative correlation with such motives as

- Achievement motivation ($r=0.774^{**}$);
- Self-development motivation ($r=0.781^{**}$);
- Self-esteem motivation ($r=0.583^{**}$);
- Amotivation ($r=-0.458^{**}$).

Achievement motivation (MD) is associated with 3 positive and one negative correlation with such motives as

- Cognitive motivation ($r=0.774^{**}$);
- Self-development motivation ($r=0.790^{**}$);
- Self-esteem motivation ($r=0.525^{**}$);
- Amotivation ($r=-0.295^{**}$).

Table 8. Matrix of intercorrelations of motives

Ro Spearman	Self-development motivation	Achievement motivation	Self-development motivation
Achievement motivation	0,774**		
Motivation for self-development	0,781**	0,790**	
Self-esteem motivation	0,583**	0,525**	0,764**
Introjected motivation			0,300**
Motivation	-0,458**	-0,295**	-0,370**
	Self-esteem motivation	Introjected motivation	External motivation
Introjected motivation	0,440**		
External motivation	0,225*	0,674**	
Amotivation		0,296**	0,644**

Self-development motivation (MSr) is associated with 4 positive and one negative correlation with such motives as

- Cognitive motivation ($r=0.781^{**}$);
- Achievement motivation ($r=0.790^{**}$);
- Self-development motivation ($r=0.781^{**}$);
- Self-esteem motivation ($r=0.764^{**}$);
- Introjected motivation ($r=0.300^{**}$);
- Amotivation ($r=-0.370^{**}$).

Self-esteem motivation (self-esteem) is associated with 5 positive correlations with such motives as

- Cognitive motivation ($r=0.583^{**}$);
- Self-development motivation ($r=0.764^{**}$);
- Achievement motivation ($r=0.525^{**}$);
- Introjected motivation ($r=0.440^{**}$);
- External motivation ($r=0.225^{*}$).

Introjected motivation (IM) is associated with 4 positive correlations with such motives as

- Self-development motivation ($r=0.300^{**}$);
- Self-esteem motivation ($r=0.440^{**}$);
- External motivation ($r=0.674^{**}$);
- Amotivation ($r=0.296^{**}$).

External motivation (EM) is associated with 3 positive correlations with such motives as

- Self-esteem motivation ($r=0.225^{*}$);
- Introjected motivation ($r=0.674^{**}$);
- Amotivation ($r=0.644^{**}$).

Amotivation (AM) is associated with 2 positive and 3 negative correlations with such motives as

- Cognitive motivation ($r=-0.458^{**}$);
- Achievement motivation ($r=-0.295^{**}$);
- Self-development motivation ($r=-0.370^{**}$);
- Introjected motivation ($r=0.296^{**}$);
- External motivation ($r=0.644^{**}$).

The constructed correlation galaxy (see Figure 7) allows you to clearly see the features of the relationship of academic motives among students:

- The three leading motives are: self-development, self-esteem and amotivation;
- The next layer of motivation is cognitive motivation, achievement motivation and introjected motivation;

- The least significant academic motive is external motivation.

The results of the correlation analysis and the constructed pleiad resolve the contradictory data that were revealed during the analysis of descriptive statistics and frequency analysis.

Conclusion

Thus, three academic motives dominate among students:

- self-development motivation - striving to develop one's abilities, one's potential within the framework of educational activities, to achieve a sense of mastery and competence.
- self-esteem motivation - the desire to learn for the sake of feeling self-worth and self-esteem increase due to academic achievements.
- amotivation – lack of interest and a sense of meaningfulness of educational activities.

Correlations were found between these motives, the motivation of self-development is associated with a positive correlation with the motivation of self-esteem, and a negative correlation with amotivation. That is, the more students strive to develop their abilities, their potential within the framework of educational activities, the more they feel their importance and the higher their interest and sense of meaningfulness of educational activities.

Conversely, the lower the students' interest and sense of meaningfulness in learning activities, the lower they strive to reveal their potential in learning and develop their abilities, and the lower their self-esteem.

According to the obtained hierarchy of academic motivation, three groups of students were identified in the study: with the dominance of amotivation, with the predominance of internal motivation (the core of the motive of self-development) and with the predominance of external motivation (the core of self-esteem).

The relationship in the third group will work the same way as in the first, since correlations do not have a vector, but here it is the motive of increasing self-importance that will fuel the desire to develop abilities and unlock potential, whereas in the first group of students, the revealed potential increases self-esteem.

Then we studied the relationship between motivational processes and self-efficacy in students, the data obtained are presented in Table 9 and Figure 8-9.

Cognitive motivation (PM) is associated with 2 positive correlations with self-efficacy indicators: with general self-efficacy ($r=0.414^{**}$) and with self-efficacy in the field of subject activity ($r=0.172^*$).

Achievement motivation (MD) is associated with 2 positive correlations with self-efficacy indicators: with general self-efficacy ($r=0.414^{**}$) and with self-efficacy in the field of subject activity ($r=0.162^*$).

Self-development motivation (MSr) is associated with 1 positive correlations with overall self-efficacy ($r=0.515^{**}$).

Self-esteem motivation is associated with 3 positive correlations with self-efficacy indicators: with general self-efficacy ($r=0.517^{**}$), with self-efficacy in the field of subject activity ($r=0.216^*$) and in the field of interpersonal relations ($r=0.300^{**}$).

Literature

References

- Belyh T. V. *Struktura integral'noj individual'nosti studentov s raznym urovnem vyrazhennosti kommunikativnoj samojeffektivnosti. Monografija- M.: Mir nauki, 2015. - 70 s.].*
- Krichevskij R.L. *Samojeffektivnost' i akmeologicheskij podhod k issledovaniju lichnosti / R.L. Krichevskij // Akmeologija. -2001. -No1. —S. 47-52.*

Maddux, J. E. *Self-Efficacy: The Power of Believing You Can*. *The Oxford Handbook of Positive Psychology* (2nd edn) Edited by Shane J. Lopez and C.R. Snyder, 2012 URL: <https://www.oxfordhandbooks.com/view/10.1093/oxfordhb/9780195187243.001.0001/oxfordhb-9780195187243e031>.

Galoj N.Ju., Lihachjova Je.V., Nikolaeva L.P., Ognev A.S. *Cennostnye orientacii studentov kak prediktor ih samojeffektivnosti i zhiznestojkosti // Chelovecheskij kapital*. – 2020. – № 8(140). S. 241-250.№

Gordeeva T.O. *Teorija samodeterminacii: nastojashhee i budushhee. Chast' 1: Problemy razvitiya teorii 2010 - N 4(12) «Psihologicheskie issledovanija». S.14-19.*

Maddi S. *Creating Meaning Through Making Decisions // The Human Search for Meaning / ed.by P.T.P.Wong, P.S.Fry. Mahwah: Lawrence Erlbaum, 1998, p.1-25.*

Anan'ev B.G. *K psihofiziologii studencheskogo vozrasta // Sovremennye psihologicheskie problemy vysshej shkoly. L., 1974. Vyp. 2. 280 s.*

Zimnjaja I.A. *Pedagogicheskaja psihologija: uchebnik dlja studentov po pedagogike i psihologii. M.: Logos, 2000. 384 s.*

Vygotskij L.S. *Problemy razvitiya psihiki // Vygotskij L.S. Sobr. soch.: v 6 t. M., 1983. T. 3. 368 s.*

Abul'hanova-Slavskaja K.A. *Strategija zhizni. M.: Mysl', 1991. 155 s.*

Beljanskaja T. Je. *"SOCIAL"NO-PSIHOLOGICHESKIE HARAKTERISTIKI STUDENCHESKOGO VOZRASTA" Uchenye zapiski. Jelektronnyj nauchnyj zhurnal Kurskogo gosudarstvennogo universiteta, no. 3 (55), 2020, pp. 220-227.*

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Nasledov A. D. *IBM SPSS, Statistics 20 i AMOS: professional'nyj statisticheskij analiz dannyh. — SPb.: Piter, 2013. — 416s.*