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**MOTIVATIONAL DETERMINANTS IN THE DEVELOPMENT OF  
CREATIVE THINKING OF UNIVERSITY STUDENTS**

Boris P. Yakovlev (a), Tatyana B. Dumova (b)\*, Anastassiya S. Litovchenko (c)

\*Corresponding author

(a) Surgut State University, 628400, Russia, Tyumen region, Surgut, Lenin Pr., 1,

(b) Surgut State University, 628400, Russia, Tyumen region, Surgut, Lenin Pr., 1

(c) Surgut State University, 628400, Russia, Tyumen region, Surgut, Lenin Pr., 1,

*Abstract*

One of the main tasks for higher vocational education is the search for effective ways of managing educational activities, providing cognitive and creative activity of the main educational process. The decisive causal factor of creative activity of students is their motivation. For subjects of the educational process, questions of motivation are formulated as an internal state, determining the direction of a student's motivation, predisposing its action purposefully, which is of greater importance in a modern university. At the same time, the educational process is increasingly difficult to ration, on the one hand, and it is difficult to control – on the other. Today, more than ever, the problem of assessing the level of creativity of students in higher professional education has become more acute. There are insufficiently studied specific motives, components of motivational determination for the creative interaction of the main subjects of educational activity. It is necessary to update the methods of selective formation of internal motives and the motivation to achieve success, the motivation of the competence among future specialists, professionals even in the conditions of university training. In modern society, the need for specialists capable of creative activity has increased. The main goal of the motivation process is to get the maximum benefit from using labour resources, which allows students to increase creativity, their academic performance, professional preparedness and the quality of educational activities of the university. The system of motivation in the educational organization, in which they participate, has its own potential, significance and meaning of learning.

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**Keywords:** Creative thinking, motivational determination, personal properties, research methods, educational activities, students.



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## 1. Introduction

The strategy of formation of future creative specialists in the system of higher professional education meets the urgent tasks of preparing students in the system of higher professional institutions, and it is becoming one of the most important in the development of national education.

People who not only possess a set of knowledge, but can think creatively and planned and work in a team will gain competitive advantages in the future, says President of the Russian Federation, Vladimir Vladimirovich Putin (Putin, 2018).

The results of statistical data show that in the modern world the creation of prerequisites for the development of practice-oriented creative thinking and professional skills to ensure one's own competitiveness in human life becomes the most important feature. What prerequisites are promoted their implementation in the education system? First of all, the following main factors-conditions are:

1. High educational level of motivational competence which mediates the development of creative qualities, since without them it is almost impossible to reach a new level of development of innovative activity.

2. Lack of motivation for the development or formation of creative abilities of students (Dumova, 2018; Gashkova, Berezovskaya, & Shipunova, 2017).

## 2. Problem Statement

The problem of the study is what should be the motivational determinants that promote the development of creative thinking of university students. It is necessary to find approaches, methods, techniques to motivate a student in order to form creative abilities and develop students' creative activity.

## 3. Research Questions

In our study, we want to identify which motives and needs will determine the development of creative thinking of students of higher professional education.

## 4. Purpose of the Study

The purpose of the study is to theoretically substantiate and experimentally investigate the effect of motivational determination on the creative thinking of university students.

## 5. Research Methods

Motivation of professional activity (K. Zamfir technique in A. Rean's modification) (Rean, 2009) is based on the concept of internal and external motivation. Based on the results, the motivational complex of the individual is determined. The motivational complex is a type of relationship between the three types of motivation: VM, VPM and PTO. The following two types of combinations should be attributed to the best, optimal, motivational complexes: VM > VPM > PTO and VM = VPM > PTO. The worst motivational complex is the type of PTO > VPM > VM. The study was conducted mainly with the fourth-year students and undergraduates of the 2 years of study.

The following methods and specific methods were also used: diagnosis of “emotional intelligence” (N. Hall) (Ilyin, 2000); the method of diagnosing the need to achieve by N.M. Peisakhov (Peisakhov, 1977); the method of F. Williams aimed at diagnosing personal creativity, translated and adapted by E.E. Tunic (Ilyin, 2000). This questionnaire is designed to evaluate the four features of a creative person, a degree of risk-taking (P), curiosity (L), imagination (B) and preference of complex ideas (C) (Ilyin, 2000). In addition, non-standardized methods of observation and conversation were used to confirm, supplement and clarify data obtained using other methods.

Primary data were subjected to statistical processing. The features of the distributions of all variation series were analyzed (the values of the arithmetic mean and standard deviation were determined). Special attention was paid to the form of the distributions obtained and their correspondence to the normal law. The methods of correlation analysis were used; the statistical significance of differences in mean values was determined. For the purpose of statistical analysis of empirical data and visual presentation of the results, the computer program Statistica v.5.0 was used.

160 people participated in the study. The subjects were undergraduates (42 people), undergraduate students, specialists of the first-, second-, third-, fifth years of study (lawyers, doctors (pediatricians and clinicians), athletes, biologists, economists).

The subjects were from 19 to 25 years old. In order to verify the relevance of the study and the correctness of the selection of methods, we conducted a pilot and then ascertaining study.

## **6. Findings**

In order to study the severity of changes in the correlation relations between the obtained primary indicators, the coefficients of linear correlation were calculated.

Our research and studies of other scientists show that the motivation for learning activities among modern students is not high in most of the respondents – 55%. Only 10% of students have a high level of motivation for learning activities, the structure of motivational orientation (personal, business, collective) is floating, reactive (Yakovlev & Dumova, 2017). In addition, there is a psychological blocking of various motives; the goal is not for educational activities, but for the prestige of future activities, value orientations. The majority of university students (law, medical, physical education and sports faculties) are materially oriented, learning is not a necessity for them, it is only a means in the future to satisfy its material needs, obtain a diploma of higher professional education, and earn money (Stavruk, 2007; Yakovlev, 2012). These indicators affect the efficiency and quality of students' learning activities.

Studies by Russian scientists Rean, Yakunin, and Meshkov in the nineties, revealed a significant pattern: it turned out that the "strong" and "weak" students still differed from each other (Yakunin, 1998). However, this was not by the cognitive level of intelligence, but by the strength, quality and type of motivation of learning activities. For strong students, intrinsic motivation is characteristic: they need to master the profession at a high level, and they are oriented towards obtaining solid professional knowledge and practical skills. As for weak students, their motives are mostly external, situational: for such students, it is, first of all, important to avoid condemnation and punishment for poor studies, and not to lose a scholarship, etc. (Yakovlev & Dumova, 2017).

Research data allow us to assert with confidence that high positive motivation can compensate the lack of special abilities or insufficient supply of knowledge and skills, playing the role of a compensatory factor.

One of the most important issues of motivation of human activity is a causal (deterministic) explanation of behaviour. The current and significant direction in addressing this issue today is connected with the research of scientists in order to understand how students can be motivated for independent productive learning activities aimed at developing divergent (creative) thinking (according to Guilford, 1965). The facts were obtained in the psychology of creativity; personal abilities indicate that increasing the power of motivation and creative work of students are important and relatively independent types of educational motivational determination. People who have a strong need for achievements of originality, innovations prefer to rely on their own strength and strive for self-improvement, self-assertion, self-actualization. They have a high resistance to mental stress, working capacity, a tendency to work on above-average tasks that require considerable effort, but are not intractable. They feel more satisfaction from their creativity, creative work when they can plan it selectively and freely, independently define their goals and achieve them (Matuskova, 2014).

In our studies, we paid special attention to external and internal motivation, the strength of achievement motivation, value orientations and their connection with personal abilities. According to the results, according to the questionnaire, A.A. Rean determined the motivational complex of the personality of students and undergraduates. For 4th year students, the motivational complex represented a type of relationship in  $VM = VPM > PTO$ , it equals 69% of the sample of respondents, i.e. an optimal, motivational complex. Undergraduates of the first and second courses are characterized by a suboptimal, motivational complex (see table 01).

**Table 01.** The average indicator of the motivational complex of undergraduates

Motives of professional activity	Internal (VM)	External positive (VPM)	External negative (PTO)
PTO > VPM > VM	2	3	4

We paid special attention to the students' motivation for achievement. The motivation is dissatisfaction with what has been achieved; perseverance in achieving their goals, the desire to achieve their own by all means, and it is one of the significant personality traits that has great influence on the student's creative thinking and creative activity (Kurmanova, 2013). In addition, there is a need to achieve self-organization, self-knowledge, autonomy, self-affirmation, positive attitude and confidence in a future career and other personal manifestations of a person.

Moreover, complex personal education is particularly important for students at any level of educational activity and professional training, interaction with fellow students, faculty (Kurmanova, 2015).

The results of the ascertaining experiment of two groups are: the first group is successfully trained in absolute terms of fundamental disciplines; it has high indicators (average total score on risk appetite, imagination, curiosity, difficulty – 86 (+/- 4) points by the method of F. Williams, E.E. Tunik. The second group has less successful students, having not high indicators by the method of F. Williams, E.E. Tunik – 56 (+/- 4) points. An experiment was conducted on the basis of two universities: Surgut Pedagogical

University and Surgut State University, and it showed that in 42% of the students of the first group, the motivation to achieve success was the leading motivation. In the second group, the motivation to achieve failure avoidance was 38% in the sample of subjects. The motivation to achieve success was the next motivation. In the second group, the motivation to achieve failure avoidance corresponded to 38% of the sample of subjects. Thus, for this group of students, the leading factor was to avoid failure, and 20% is the average level for this indicator as a whole for all students of the sample studied. If we analyze the subjects by faculties and courses, the highest indicator on the strength of the motivation to achieve success will be students (doctors and economists) of the second and third courses (Yakovlev, 2012).

The most important role in understanding how a student will be motivated for studying and professional activities, beside the achievement motive, belongs to personal qualities (value orientation, emotional intelligence, personal creativity) and social and psychological factors – with whom the student learns and who teaches him. These are parents, friends as well as the right choice of profession, the conditions of life – information and technological capabilities at the university, the conditions of the hostel, etc. (Zagrebina, 2011).

After analyzing the data of our diagnostic research and theoretical aspects of this problem, it is advisable, in our opinion, to formulate a number of recommendations that can be used in developing programs aimed at increasing the strength of achievement motivation, as well as contributing to the establishment of the most optimal level of socio-psychological adaptation at the university, and possibly - in family education:

- informing the student about the conditions and means of developing the power of achievement motivation;
- conducting motivational and training groups aimed at enhancing creativity and creative activities;
- current monitoring and evaluation, psychological counseling on the features and properties of creative thinking.

## 7. Conclusion

We believe that motivation in educational and professional activities is considered as visual evidence of a deterministic manifestation of the development of students' creative thinking. The question of learning motivation is essentially not only the question of the quality and productivity of learning activities, but also that of the quality of self-development of creativity, creative potential of the student, awareness of the importance of learning for his own personality and future professional activity. It is the motivation of activity that largely creates the prerequisites of efficiency and the performance of the professional activity itself.

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