

Student Motivation as One of the Main Components of Learning Efficiency

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Abstract: A great role in the learning process and, in particular, the perception of information, is the motivation of students in relation to learning. Motivation is a collection, a system of psychologically diverse factors that determine the behavior and activities of a person. In other words, it acts as motivations that arouse or reinforce human activity. Motivation, according to modern psychological ideas (Kuzmin E.S., Lomov B.F., Platonov K.K. and others) [1] is understood as a set of persistent motives, subspecies of a certain hierarchy and expressing the direction of the individual. The motives are those internal forces that are related to the needs of their personality and are motivated to a certain activity aimed at their satisfaction. Educational motivation was defined as a particular kind of motivation included in the action of the teaching, learning activity. Educational motivation, like any other of its kind, has a systemic character. It is characterized by direction, stability and dynamism.

Key words: Motivation • Learning efficiency • Educational psychology • Behavioral manifestation
• Educational activity

INTRODUCTION

The general structure of the educational motivation is formed by the need, the meaning of the teaching, the motive of the teaching, the goal, the interest, the desires and intentions, the task.

The most important of the motivational concepts is the concept of need. The need is the state of the individual, created by the need he is experiencing in certain objects necessary for his existence and development. That is why the need is one of the main sources of human activity. Being the motive of activity and its source, the need is at the same time its result.

Needs are the initial motivations of a person for activity, they express his dependence on the outside world and the focus on him. Needs are for all living beings. The main characteristics of the needs are: a) strength, b) frequency of occurrence, c) methods of satisfaction, e) objective content (i.e., the totality of those objects by which this need can be met).

Another concept that describes the motivational sphere of a person is the motive. The motive is the inner motivation of the individual to a particular type of activity (activity, communication, behavior, learning), related to the satisfaction of a particular need. At the same time, the

motive acts as the motivating and determining choice of the direction of activity, the object (material or ideal) to which it is directed.

Ideas, interests, beliefs, social attitudes, values can serve as motives. However, at the same time, for all these reasons, human needs in all their diversity (from basic, biological, to higher, social) still cost.

There are allocated (Faizullaev A.A.) three stages, which the motive passes in its formation and development (Figure 61): 1) the emergence of motivation as a reflection of a specific need; 2) awareness of motivation; 3) acceptance by the person of the conscious motivation as the motive of the activity [2].

The selection of the third stage is due to the fact that even having realized and comprehensively appreciating any motivation, a person, in principle, may not accept it as a motive and accordingly refuse it.

MATERIALS AND METHODS

The problem of motivation of educational activity is traditional for pedagogical psychology. The study of its role, content and types of motives, their development and purposeful formation was carried out in different years by El'konin D.B. (El'konin D.B., 1989), Davydov V.V. [3],

Bozhovich L.I. [4, 5], Markova A.K., Abramova G.S., Matyukhina M.B., Shchukina G.I., Yakobson P.M. [6] and other scientists.

General concepts of motivation for learning activities were applied to the analysis of the motives of students' learning. It turned out that the student's motivation for students is significantly different from the motivation of schoolchildren, not only because of their age differences. The activities of students in the technical school with good reason can be called educational and professional. This means that professional motivations are not just "wedged" into the motivation structure of the teaching, but become an integral part of it, interacting with the motives of the teaching and forming the educational and professional motivation. To the study of the motivation of the educational and professional activity of students were addressed works of Deleu M.V. [7], Itelson L.B., Savon'ko E.I., Urvantsev L.P., Dyachenko M.I., Areestova O.N., Verbitsky A.A., Bakshayeva N.A. [8], Rean A.A. and other psychologists [9].

RESULTS AND DISCUSSION

Scientists have proved that motivation is one of the leading factors of successful learning. But the features of this factor and its effectiveness differ, namely, at different stages of the educational process through which the student passes. From the first to the last course, the educational and professional activity itself and its motivation change.

Numerous theories of motivation began to appear in the works of ancient philosophers. Currently, there are more than one dozen such theories.

The great thinkers of antiquity (Aristotle, Heraclitus, Lucretius, Plato, Socrates) initiated the scientific study of human activity, arguing about need as a teacher of life.

Democritus considered need (need) as the main driving force, which not only brought emotional emotions into action, but made the human mind sophisticated, allowed to acquire language, speech and habit of work. Outside of need a person could not get out of a wild state.

Heraclitus considered in detail the motivations, drives, needs. In his opinion, needs are determined by living conditions. Every desire is bought at the cost of "psyche", so the abuse of lust leads to its weakening. At the same time, moderation in meeting needs contributes to the development and improvement of the intellectual abilities of man.

At present, a single approach to the problem of motivating human behavior has not been worked out in

science, terminology has not been established and basic concepts have not been formulated clearly.

In this regard, "motivation" has a different interpretation. In one case, it is considered as a set of factors that support and guide behavior (Godfroy J., Madsen K.). In the other case – as a set of motives (Platonov K.K.). In the third – as an incentive, causing the activity of the organism and determining its direction, i.e. a set of factors that guide and induce human behavior [6]. In addition, motivation is seen as a process of mental regulation of a person's specific activity (Magomed-Eminov M.Sh.).

Researchers have established (at a significant level of significance) a positive relationship between motivational orientations and student achievement. The most closely related to academic achievement were the orientation toward the process and the result, less densely – the orientation toward "the teacher's assessment." The relationship of orientation to "avoiding trouble" with academic achievement is weak.

Also, studies have found that satisfaction with learning depends on the degree of satisfaction of the need for achievement, i.e. "Man's desire to improve the results of his activities." This need makes students concentrate more on their studies and at the same time increases their social activity. Also, this need has the greatest impact on the effectiveness of motivation.

A significant but ambiguous impact on learning is the need for communication and domination. However, for the activity itself, the motives of the intellectual-cognitive plan are especially important.

With reference to educational activity of students under the professional motivation the set of factors and processes which, induce and direct the person to studying of the future professional activity is understood. Professional motivation acts as an internal driving factor for the development of professionalism and personality, since only on the basis of its high level of formation, an effective development of professional education and culture of the individual is possible.

At the same time, the motives of professional activity are understood as the awareness of the subjects of the actual needs of the individual (getting higher education, self-development, self-knowledge, professional development, increasing social status, etc.), satisfied by fulfilling learning tasks and encouraging him to study future professional activity [10].

In the general structure of the motivational sphere, an important place belongs to the goal. The goal is a certain ideal image and an anticipatory model of the desired life

situations of a person. It is a specific way of determining human activity and a law that determines the essential nature of a person's vital activity, transforming it from simple adaptation to the environment into an active creative transformation of the world. In other words, the goal can be considered all that a person seeks to achieve the end result of an activity aimed at satisfying his needs. A specific feature of human activity is that it is conscious and purposeful. It is in it and through it that a person realizes his goals, objectifies his ideas and ideas in the reality that he changes. To realize the goal, it is necessary to take into account the conditions in which it is to be realized. The relationship between the goal and the conditions determines the specific task that must be resolved by the action.

Needs, motives and goals act as the main components of the human motivational sphere, including in training. In this case, the need appears as internal and the goal - as an external aspect of motivation. Motives in this case should be understood as active driving forces that determine student behavior. To motivate students is to touch upon their important vital interests, to show that the teaching fully meets these interests and is aimed at satisfying their needs, to create conditions for them to realize themselves in the learning process. For this, the student must:

- Be familiar with success (success is the realization of the goal). At the same time, it is necessary to formulate goals for which he is personally interested;
- Have the opportunity to see yourself in the results of your work, to realize yourself in learning activity;
- To feel its importance.

In addition to needs, motives and goals, as incentives for learning are also interests, desires and intentions, tasks.

Interest is an informative need, a person's interest in something. Interest corresponds to a special type of activity - orientation and research. The highest level of such activities, inherent, incidentally, only to man, are scientific and artistic and creative research. The most important prerequisite for creating interest in teaching is the education of broad social motives of activity, an understanding of its meaning.

A prerequisite for the formation and development of students' interest in the content of training and in the actual educational activity is their ability to show their intellectual independence and initiative in the teaching. The more active the methods of instruction, the easier it

is for them to interest students, the more assignments, the solution of which requires students to actively search for information, the more stable their interest in learning.

Of great importance in shaping the interest in teaching is the creation of a problem situation, the clash of students with a difficulty that they cannot solve with the help of their available knowledge. Faced with difficulty, they are convinced of the need to obtain new knowledge or ways of applying old knowledge in a new situation. Interesting is only the work that requires constant stress. Lightweight material that does not require mental exertion is usually not of interest. At the same time, the difficulty of the educational material and the educational task can lead to an increase of interest only when this difficulty is feasible, surmountable, otherwise the interest quickly falls.

The educational material and methods of teaching should be enough (but not excessively) diverse. The diversity of the presentation of the material is provided not only by the collision of students with various objects in the course of training, but also by the fact that in one and the same object there is the opportunity to discover new properties, sides, possibilities.

One of the ways to excite students of cognitive interest may be a suspension, that is, showing them a new, unexpected, important in something familiar and ordinary. The novelty of the material is the most important prerequisite for the emergence of interest in it. At the same time, knowledge of the new must rely on the knowledge already available to students.

An important factor in the students' interest in the teaching material and its maintenance is its emotional coloring, the living word of the teacher, his smile and a benevolent facial expression.

In the structure of the motivational sphere, an important place is occupied by desires and intentions. Desire is a reflection of the need for an experience that transforms into an effective thought about the real possibility of satisfying this need, the possibility of something to possess or do something. This fully applies to the possession of the knowledge necessary to achieve the goals. Intent is the next step to the desire to step in the development of the motivational sphere and represents a conscious desire to complete the action in accordance with the intended program aimed at achieving the intended result. In other words, desire and intention are situationally emerging and rapidly changing subjective states that correspond to changing conditions for the performance of actions.

The task as a structural element of motivation acts as a particular situation-motivational factor that arises when in the process of performing actions aimed at achieving a specific goal, there is a difficulty or other obstacle that needs to be overcome through the formulation and solution of a specific task.

Interests, tasks, desires and intentions play an instrumental role in the motivational process, that is, they are responsible for the style of human behavior.

The development of the motive occurs through a gradual change and expansion of the range of activities that transforms the objective reality. Therefore, it has a rather complex functional structure.

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The development of the motive through a gradual change and expansion of the range of activities. Therefore, it has a rather complex structure.

The most productive are internal motives, because they are based on interest, on something important and meaningful for students. Internal motives include those that induce a person to learn as their goal and as an important tool to achieve their goals. In this case, interest can manifest itself to the knowledge itself and to the process of obtaining it. Inward motives can also be

curiosity, the student's desire to improve his cultural and professional level, his need for new information. Educational situations related to motives of this kind do not contain internal conflict. In general, internal motivation is typical for strong students who are striving to master the profession at the proper level, acquire practical skills.

External reasons include incentives such as punishment or reward, threat and demand, group pressure, expectation of future benefits, teacher assessment, the desire to avoid trouble, etc. All of them really are external to the immediate goal of the teaching. The very goal, that is, the teaching itself, can be indifferent or even repulsive in such situations and motives and the teaching is often forced by the student character and acts as an obstacle that must be overcome on the way to the main goal. For this situation, in principle conflictual, the presence of opposing forces is characteristic, therefore it is associated with considerable mental tension, requires the student certain internal efforts and is sometimes accompanied by his struggle with himself.

With a significant conflict severity, there may be a tendency to "get out of the situation" (refusal, circumvention of difficulties, neurosis). Then the student abandons his studies or breaks down - begins to violate the rules of the academic discipline, fall into apathy, is subject to depression. External motives usually have a small perspective. They can be both positive (the motives for success, achievement of the goal) and negative (motives for avoiding threats, protecting). Positive external motives are certainly more effective than external negative motives, even if by their strength they are equal. External motives are inherent in weak students, for whom it is first important to avoid moral and psychological condemnation or punishment for bad schooling.

The task of the teacher is to reveal the students' inner motives for their cognitive activity, to develop and activate these motives and direct them to activate the teaching.

The success of educational activity, as is known, depends on many factors of a psychological and pedagogical nature, which are to a great extent concretized as socio-psychological and socio-pedagogical. The success of training activities is influenced, in particular, by the strength of the motivation and its structure.

Another classical law of Yerkes-Dodson, formulated several decades ago, established the dependence of the effectiveness of activity on the strength of motivation. It

follows directly from him that the stronger the motivation, the higher the effectiveness of the activity. Moreover, the power of motivation can be filled even by a lack of special abilities, knowledge, skills and skills, playing the role of a kind of compensatory mechanism. But the direct link remains only up to a certain limit: if, after reaching some optimal level, the force of motivation continues to increase, then the efficiency of activity begins to decline. However, this law does not apply to cognitive motivation. It is shown that even a constant increase in the strength of motivation does not lead to a decrease in the effectiveness of educational activity. It is with cognitive motivation (and not with motivation for success) that the productive creative activity of a person is linked in the educational process [11].

For a long time there was an opinion that the student's intellectual level affects the success of teaching and this, of course, is really so. However, the results of special studies have shown that the motivation factor in this case was stronger than the intelligence factor. "Strong" and "weak" students differ from each other not so much in terms of intelligence, as in strength, quality and type of motivation for learning activities. No high level of ability can compensate for low educational motivation or its absence, cannot lead to a high level of success in their educational and cognitive activities.

The impetus to activity, to learning can equally become the desire to achieve success and the fear of failure, that is, two important types of motivation - the motivation for success and the motivation for fear of failure. If, when motivating success, human actions are aimed at achieving constructive, positive results, then when motivating fear of failure they are associated with the expectation of unpleasant consequences.

Individuals motivated for success are usually active and initiative, differ by perseverance in achieving the goal and are inclined to plan their future at large intervals. They prefer to take on average, or slightly inflated, but at the same time feasible obligations. When performing tasks of a problem nature, as well as in the conditions of a time deficit, the effectiveness of their activities, as a rule, improves.

Motivation for fear of failure is unambiguously negative. Individuals with inherent motivation of this type are usually of little initiative, they avoid responsible tasks, set unreasonably high goals and poorly assess their capabilities. Or choose light tasks that do not require special labor costs. Differ, as a rule, less perseverance in achieving the goal. They tend to perceive and experience time as "aimlessly current".

In the event of failure in the performance of an important and responsible task, its appeal to the performer is usually reduced. Moreover, this happens regardless of whether the task is imposed from outside or is chosen by the subject himself. Therefore, it is advisable to plan the process of its implementation in such a way that among the intermediate results there are also those that will certainly be fulfilled. This should help to build confidence and to some extent compensate for the failure of other results.

Therefore, an important role in the pedagogical process is acquired by diagnosing the motivation for success and motivating the fear of failure. Its implementation is connected with observation and deep psychoanalysis of the activities and behavior of students. Its results are also intended to contribute to an individual approach in finding adequate methods and technologies for implementing corrective psychological and pedagogical influences on students.

In general, the motives that make up the core of the personality are closed to analysis; they represent a zone, consciously or subconsciously, but always carefully guarded by the person from outside penetration. Therefore, the structure of the motivational sphere of the personality can usually be studied using mediated, complex techniques, such as projective type techniques and other test questionnaires.

Diagnosis of motivation is especially important for revealing the orientation of the personality of the student and the reasons for choosing this type of future professional activity for him. At the same time, in the field of professional motivation, a positive attitude towards the profession plays a crucial role, since this motive is connected with the ultimate goals of education. Diagnosis of attitudes toward the profession is an independent psychological task. And the formation of attitudes toward the profession is mainly a pedagogical problem.

In the conditions of humanization and democratization of education, the teacher and the student change, interact and work together in upgrading the educational process.

The problem of learning and motivation of student is one of the Central in educational psychology and the process of assimilation of knowledge to a large extent, depends on the involvement in the educational process of the student's interest [12].

Motivation - is causing the individuals activity and determining his direction.

The main point of motivation is - the behavioral manifestation of the desire to meet their needs.

It is well known that it is difficult enough to successfully teach a student if he is not motivated to acquire knowledge, i.e., refers to learning of knowledge indifferently, without interest, not realizing the need for them. The teacher's task is to understand the motivation of the students. In order to understand the motivations and predict its dynamics, it is important to know about their conditions.

In order for a student actively involved in the work, it is necessary that the tasks before him during the training activities were understood and accepted, i.e. they brought him some importance.

Formation of all personality traits cannot be without a detailed study of its nature and the factors influencing this process. The study opens up the possibility of motivation determining the prospects of development of the student, so there is quite a clear idea of the motivational sphere of students and the methods to stimulate their learning.

Motivation to educational activity — is a special kind of motivation which is a system of specific psychological qualities of the student and dependent on the educational environment and the specifics of the educational process. The motivation to educational activity of students refers to the number of professionally important personal characteristics [13].

Having examined more deeply the components of successful achievement of the educational outcomes of students, we came to the conclusion that it is a complex system formed by motives, goals, tasks, actors involved in education.

Therefore, the effectiveness of learning depends on the motivations of each subject with a single purpose. Presenting each subject in an equation would be:

$$ET = TMS + TMT + EC$$

where ET is the efficiency of training, TMS – target motivation of student and TMT – target motivation of the teacher, EC - a common goal.

If we analyze this formula from a mathematical point of view, we see that the absence of one of the components reduces the ET and, consequently, the TMS, which in turn reduces the chances of achieving the full EC.

In this scheme, the strongest component, in our opinion, is the motivation of the student. Therefore it can be concluded that it is necessary to consider more carefully this particular component, as well as clarify the mechanisms that allow it to develop and improve.

From the research of S.I. Kuchmaeva [14] it is shown that the positive effect on the process of professional training of students have motives based on interest in the profession, the motives of personal development, educational and cognitive motives and negative to Pro-social and infantile motives

Groups of material and social motives can have both positive and negative effects. Insufficient level of professional training of graduates is largely determined by the dominance of the motives, focusing students on alleged material and social benefits of their chosen profession.

However, motivation of training in high school significantly depends on the conditions during the course of educational activities and ways of organizing that requires an examination of motivation in the directions of preparation (specialties) of students. Depending on the specificity of the motivational factor as a regulator of learning activities a learning environment in which this motivation will be formed is needed [15].

Motives or in other words the reasons that encourage people and motivate them to active work in this case study can be very different.

According to direction and contents there are the following types of motivation:

- Social motives
- Cognitive motivation
- Professionally valuable motives
- Aesthetic motivation
- Communicative motives
- Status-position motives
- Traditionally-historical reasons
- Utilitarian-practical motives
- Educational motives
- Unconscious motives. [8].

Therefore, the motives are complex dynamic systems that perform the selection and decision-making, analysis and evaluation choice. Motivation for students is the most effective way to improve the process of learning. Motives are the driving forces of the learning process and learning material. Motivation to learn quite a difficult and controversial process can change the relationship of personality, separate subject of study and the entire learning process [16].

We conducted a study to learn the process of motivation in university students in technical specialties.

In this work the following methods were used: questionnaires, essays.

When choosing research methods, we relied on methods based:

- On the selection of preset statements
- Express their needs in the form of essays, or works

In the treatment of the first questionnaire by the method of studying the motives of educational activity developed at the Department of Educational Psychology of the University of Leningrad (modification of A.A. Rean, V.A. Yakunin) [6], common variants were identified in order to understand that the students are concerned on average within educational process

The second questionnaire is based on the fact that people who tend to distinguish variants containing the word imagination, idea, skills, information, tend to be initiators for implementation of non-standard tasks. Those who love to learn and work in a group tend to understand a lot as a rule and initiative in solving the issues of standard tasks.

The third questionnaire includes two kinds of answers "like \ do not like." Selection response leads to the conclusion that the student wants to get away from education in general [17].

According to statistics surveys, the most common motive (18% of all answers) "get a diploma", "get deep and strong knowledge". Less frequently (14% of all responses) "ensure the success of their professional activities". The third priority (11% respectively) – "Become highly qualified specialist to intellectual satisfaction." Next in priority is followed by mercenary motives: without regard for future salary (scholarship). Hence we can conclude that the majority of student's population sees their studies as a means of obtaining a diploma and abstract "knowledge" and a smaller part focus on professional success and even lower layer satisfies the hunger for information, gets off on new information or acquires complex specific skills.

Further, on the basis of the obtained data we can conclude that for technical students the best motivation for learning is the objectivity of the result of their actions (i.e., something functioning) and one correspondence of the obtained skills and future workloads in the enterprise.

Next in importance are the different levels of informality of communication, the charisma of the teacher and the ability to transfer and diversify the material and the diversity of the material must include the description and discussion of the most interesting modern achievements of science and technology. On the one

hand, it allows them to relax in class and not feel it as hard work and on the other hand, it focuses on the interesting but highly technical information, which forms the image of further discussions as purely technical and implicitly increases the desire to do laboratory work with different devices.

Thus on the basis of the study to ensure effective learning process of students of technical specialties, students are required to:

- Create conditions for development of internal motivation through:
- Improving methods of teaching (making the "interesting lessons")
- Increase the share of demonstration of applied significance of learning outcomes
- The teachers need to structure lessons to include evidence base on the topics, subjects, with the purpose of formation of consciousness of students of the usefulness of the subject in their future activities.
- Strengthening the subject-subject position during the learning process.

CONCLUSION

Based on the analysis of the results obtained, we identified the following two groups of students: high and low level of educational motivation.

Students with a high level of professional motivation are directed to educational and professional activities, development of self-education and self-knowledge.

Students with a low level of motivation for teaching are indifferent to the learning process. At best, they show cognitive activity at the level of preventing claims from the teacher. At worst, they are looking for a way to replace their own manifestation of knowledge with a material equivalent.

It is this part of the students that is more concerned with spending their leisure time, which dominates the distribution of time.

On this basis, we can offer:

- The process of vocational training of college students should be supported by intensive, near-professional activity at all stages of training (research groups, professional societies, etc.);

- Students with a low level of motivation should receive increased attention from the teacher and the management of the school in order to create conditions for increasing motivation;
- All educational activities in the college, including leisure, should not be built on a commercial basis.

The formation of professional motivation among students is associated with the study of the system and the hierarchy of motives that determine a positive or negative attitude toward the chosen profession; Dynamics of satisfaction or dissatisfaction with the future profession from course to course; Factors that influence this process (socio-psychological, psychological-pedagogical, sex-age and others).

In general, studies of educational and professional motivation indicate that it is complex, multidimensional, heterogeneous and heterogeneous, has a hierarchical structure that determines the student's different orientation depending on which particular motives become dominant for him and requires careful study and analysis with a view to the correct formation and development of each student.

REFERENCES

1. Kuzmina, N.V. and N.V. Kukharev, 1976. Psychological structure of the teacher. Gomel.
2. Fayz, A., 2012. A. Fayzullaev - Motivational self-regulation of the personality. Retrieved from alisher-faiz.net/2012/01/dvadcat-pyat-let-spustya/a-fajzullaev-motivacionnaya-samoregulyaciya-lichnosti/
3. Davydov, V.V., 1986. Problems of developing learning. Moscow: Pedagogika, pp: 15-48.
4. Bozhovich, L.I., 1976. Psychology of the regularity of personality formation in ontogenesis. Questions of Psychology, 6p: 45-55.
5. Bozhovich, L.I., 2006. Personality and its formation in childhood. Moscow.
6. Yakobson, P.M., 1998. Psychology of feelings and motivation. Voronezh: MODEK; Moscow: Institute of Practical Psychology, pp: 304. (Psychologists of the Fatherland).
7. Deleu M.V., 1990. Some features of the manifestation of the personal qualities of first-year students in the context of adaptation to the educational process at the university. Chisinau, pp: 29.
8. Bakshaeva, N.A. and A.A. Verbitsky, 2006. The Psychology of motivation of students: textbook. Moscow: Logos, pp: 184.
9. Rean, A.A. and Y.L. Kolominsky, 2000. Social pedagogical psychology. Saint Petersburg.
10. Lisovets, N.M., 2017. Professional motivation of students as a way to activate learning. Public lesson 1st September. General pedagogical technologies. Retrieved from festival.1september.ru/articles/598947/
11. Matyushkin, A.M., 2009. Psychology of thinking. Thinking as the solution of problem situations: textbook. A.A. Matyushkina (Ed.). Moscow: KDU, pp: 190.
12. Il'in, E.P., 2002. Motivation and motives. Saint Petersburg: Peter, pp: 512.
13. Kamenskaya, E.N., 2003. Principles of psychology. Rostov on Don: Phoenix, pp: 155.
14. Kuchmaeva, S.I., 2007. Motivational factors of professional socialization of students during training in high school. PhD Thesis, Volgograd.
15. Dusavitsky, A.K., 1989. Development of personality in the team depending on the organization of educational activities. PhD Thesis, MSU, Moscow.
16. Mormugoa, N.V., 2013. Learning Motivation of students of professional institutions. Pedagogy: traditions and innovations. In the Proceedings of the IV International Scientific Conference Moscow — Chelyabinsk: Two Komsomolets, pp: 160-163.
17. Method for studying the motives of learning activity, 2016. A.Z. Psychology. Retrieved from azps.ru/tests/tests2_uchmotivos.html