

## FEATURES OF PERSONAL ORIENTATION AND VALUE ORIENTATIONS OF STUDENTS-PSYCHOLOGISTS AND STUDENTS-MATHEMATICIANS

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### Abstract

The article is devoted to the problem of studying the personal orientation, terminal, instrumental and social values of students, future psychologists and mathematicians. The following methods were used in the study: «Orientative questionnaire» by V. Smekalov and M. Kucher, revealing the peculiarities of the person's orientation towards himself, on interaction, on performing the task; the method «Value Orientations» by M. Rokich, revealing the hierarchy of terminal and instrumental values; «Express diagnosis» of the social values of the individual. The article presents the results of researching of the personality orientation, terminal, instrumental, and social values of students-psychologists and students-mathematicians. A comparative analysis of the results of research of the orientation of the personality and values of student psychologists and students-mathematicians was carried out using the statistical method of studying «T-criterion of Student» Based on the analysis of the results of the study, conclusions are drawn about the differences in the orientation of the personality and values of students-psychologists and students-mathematicians.

**Keywords:** student age, personality orientation, terminal values, instrumental values, social values.

### 1. INTRODUCTION

There is no doubt that, along with other components of professional activity, an important part of it is the so-called motivational complex of the individual, which includes, according to the researchers: "motivation of educational and professional activity, motivation for success and fear of failure, factors of attractiveness of a profession" (Gracheva, O.G., 2012; Ulyanova, N.A., 2010). The correctness of identifying the professional orientation and attitude to the future profession are the factors of success of vocational training as well as job satisfaction. A large number of studies and publications of domestic and foreign authors have been sent to the problem of motivation, that is considered in various aspects (V.K. Vilunas, E.P. Il'in, V.A. Ivannikov, A.N. Leontiev, B.C. Merlin, D.N. Uznadze, P.M. Jakobson, A. Maslow J. Atkinson, F. Taylor, D. McClelland, F.

Hertzberg, L. Porter, E. Lowther, V. Vroom). That is why it can be stated, that up to the present time there is a plurality of ideas about the problem of motivation of behavior (Biryukova, I.A., Smolyarchuk, I.V., 2014; Khagur, F.R., 2016; Maslow, A. 2006; Zhuravleva, O.V., 2015). The concept of motivation was metaphorically transformed, according to V.K. Vilunas, "into a sack," and how he writes, "the trouble is that the choice of terms for describing of these phenomena is very small" (Vilyunas, V.K., 2006, p. 8).

Especially relevant in modern conditions, and therefore poorly studied is the professional-pedagogical motivation in the process of university education.

## **2. OVERVIEW**

Student age as a socio-psychological category was considered in theoretical and empirical plans in the scientific works of B.G. Ananyev, V.A. Slastenin, N.V. Kuzmina, A.A. Rean, E.I. Stepanova. The student age in the age periodization corresponds to the period of adolescence, the conditional boundaries of which is the age from 15-16 to 21-25 years. In these terms it is possible, if it will be a favorable period, to move on to a true maturation, but there are certain obstacles in the formation of the personality (Ananiev, B.G., 2010; Kon, I.S., 1989). V.I. Filonenko describes the students as a mobile group «whose main goal is organized preparation for the implementation of high professional and social roles in material and spiritual production» (Filonenko, V.I., 2009, p. 56). R.A. Murtazin identifies two trends that determine the development of personality in the student age: an increased interest in self-knowledge, the desire to expand social contacts (Murtazin, R.A., 2011, p. 315). Belolipetskaya S.Yu. and A.A. Kornilov claim that the period of students is distinguished by a special independence, initiative and purposefulness and is a special phase of socialization (Belolipetskaya, S.Yu., Kornilov, A.A., 2012). The development and formation of the personality of the student is associated with an increase in willful regulation, the development of organizational skills, the formation of skills of independent work (Hajiyeva, U.B., 2013). The choice of a profession in adolescence and the formation of a professional in student's age, according to the opinion of Hajiyeva U.B., largely depends on the interest in any activity, inclinations, abilities of a person. Although other factors and conditions are of great importance: the image of "I", i.e. the representation of the person about himself, his capabilities, the most important aspect of the image of the "I" is self-esteem, which is associated with the level of claims of the person (Kon, I.S., 1989). No less important influence on the choice of the profession is personal experience, the distinctive features of which at the age we are considering are often its high internal importance and reassessment. In order not to make a mistake, relying on public attitudes, it is necessary to form in young people their own manifestation of activity to acquire information about their professional path in the future.

It is necessary to take into account that the knowledge of individual characteristics, adaptability, flexibility and the overall orientation of the individual, his values, abilities, beliefs contribute to more successful learning. Nevertheless, the success of training in higher education is often associated not with abilities, but with readiness for training, independence, the ability to control one's behavior. It is known that progress is interrelated with the educational motivation, and this relationship is multivariate (Semenova, T.V., 2016). One of the options is a compensatory mechanism (lack of abilities is filled with high interest and this leads to successful activity). Another option is the selection of applicants for higher education. The selection is initially carried out on the basis of intellectual abilities and the factor of professional interests is included in the future, along with this "the system of the individual's inner motives for learning and cognitive activity in the university begins to play an important role in the formation of «excellent students» and «satisfactory students» (Berezhkovskaya, E.L., Kravtsov O.G., and Kudryavtsev V.T., 2017; Dontsov, D.A., Dontsova, M.V., 2013; Ulyanova, N.A., 2010; Dorofeeva, Yu.A., 2015). These internal motivations direct the person to the study of future professional activity, which leads to professionalism, and, on the basis of this, the effective development of professional education and culture of the individual is possible. At the same time, it is very important to understand the needful sphere, which is satisfied through the fulfillment of educational tasks, the recognition of the importance of their profession, the positive attitude to it, and this in turn affects the educational performance. Klimenko I.V. investigating the motivational and value orientation of the personality of students-chemists, biologists, geographers for professional activities, revealed that for young people at the beginning of professional development the most important is the professional sphere, material well-being and self-development. By the end of the training, the students' value orientations begin to correspond to the socio-economic relations that have developed in the society – the spiritual values and values of self-development that are significant at the beginning of education are replaced by social ones (Klimenko, I.V., 2013).

I.V. Kondratenko and V.Yu. Mogilevskaya in her study of the value orientations of Transnistrian and Ukrainian students revealed qualitative differences due to cultural peculiarities (Kondratenko, I.V.,

Mogilevskaya, V.Yu., 2013).

Having analyzed numerous aspects of motivational readiness and professional self-determination of university students, it is possible to single out some aspects related to studying the attitudes of students towards the chosen profession. First, they can be attributed to the dynamics of factors of job satisfaction. Secondly, these are factors related to creative motives in professional activity. Moreover, the latter is more significant for successful students than for underachieving students. It is believed that stimulating creative needs and abilities is an important link in professional development (Filonenko, V.I., 2009). Proper diagnosis of the level of professional interests and inclinations is an important prognostic factor of job satisfaction in the future. The effectiveness of the forecast can also be determined by a set of techniques that will be used to diagnose the student's interests and inclinations, his attitudes, values, and characterological features.

### 3. RESEARCH METHODOLOGY

The study of the personal orientation and value orientations was conducted by us on the students of the 4th year of the «Mari State University» in the number of 68 people. Of these, 34 students of the Psychological and Pedagogical Faculty and 34 students of the Faculty of Physics and Mathematics, including 26 young men and 42 girls. The average age of the respondents is 20 years.

The following methods were used in the study:

- 1) «Orientative questionnaire» (V. Smekalov and M. Kucher), revealing the features of the person's orientation toward himself, on interaction, on performing the task (Shapar, V.B., 2005, p. 465).
- 2) The method "Value Orientations" by M. Rokich, revealing the hierarchy of terminal and instrumental values (Shapar, V.B., 2005, p. 468).
- 3) Express diagnosis of the social values of the individual (Socio-psychological diagnosis of personality development and small groups, 2006, p. 213-214).

### 4. RESULTS

Let us consider the results of the study of the orientation of the personality according to the method of the «Orientative questionnaire». Table 1 presents the average scores according to the results of the study of the direction of the personality of students-psychologists and students-mathematicians (according to the method «Orientative questionnaire»).

Based on the average scores presented in Table 1, we can say that in both groups of subjects the "self" orientation prevails. So, both psychology students and mathematician students are most concerned about their person, are inclined to impose their opinion, make hasty conclusions about other people.

**Table 1: Average scores on the personality traits of students-psychologists and students-mathematicians (according to the method «Orientative questionnaire»)**

Name of the group	Focus "on yourself»	focus " on interaction»	direction «to perform the task»
students-psychologists	2,3	-0,4	-1,9
students-mathematicians	3,0	-0,3	-2,6

Less pronounced in both groups of subjects in comparison with the orientation of the person "towards oneself" is the orientation "on interaction" with surrounding people, which can be expressed in reliance on the opinion of the majority, on the tendency to absolve oneself of responsibility and shift it to others, the predominance of passivity in actions, unwillingness to take on the role of leader.

The least in both groups is the average score for the person's orientation "for the task", that is, the students of the groups studied by us do not like to take the initiative and take the leadership into their own hands, do not try to plan general activities, etc.

Comparison of average scores on personality orientations of students-psychologists and students-mathematicians show that students-mathematicians more pronounced focus on themselves, and least expressed focus "on the task." But the statistical analysis of the results of the study of the orientation of the personality of students-psychologists and students-mathematicians by the statistical method of studying «T-criterion of Student» shows that there are no significant differences between them in the direction of

personality.

Next, we will examine the results of the study of the value orientations of students-psychologists and students-mathematicians using the method of M. Rokich. Table 2 presents the average values for the four most significant terminal values.

**Table 2: Average values for significant terminal values in the group of students-psychologists (according to the method of M. Rokich)**

Education (breadth of knowledge, high general culture)	Responsibility (sense of duty, ability to keep one's word)	Rationalism (the ability to think sensibly and logically, to take deliberate, rational decisions)	Efficiency in business (diligence, productivity in work)
8,8	6,5	9,3	11,3

According to the average values presented in Table 2, in the group of students-psychologists it can be observed that for them the most significant is the desire for productivity in work and effectiveness in matters. Less significant in comparison with the previous value are rationalism in business and in life in general, further striving for a decent education, responsibility and a sense of duty.

Now we turn to meaningful instrumental values. The average values for significant instrumental values are presented in Table 3.

**Table 3: Average values for significant instrumental values in the group of students-psychologists (according to the method of M. Rokich)**

The material secure life (lack of material difficulties)	Knowledge (the possibility of expanding their education, outlook, common culture, intellectual development)	Productive life (the fullest use of their capabilities, strengths and abilities)	Development (work on oneself, constant physical and spiritual improvement)
8,7	10,4	8,9	9,5

The data in Table 3 show that among the instrumental values, psychology students consider knowledge, expansion of their horizons, and intellectual development to be the most significant. Then spiritual and physical self-improvement is important for students-psychologists. Most likely, the choice of such values as goals is related to the future profession of respondents. Almost equally significant for them are the focus on productive life and material security, which is fully justified by the trends of the modern world.

Next, consider the results of the study of value orientations by the method of M. Rokich in the group of students-mathematicians. Table 4 presents the average values for significant terminal values in the group of mathematical students (according to the method of M. Rokich).

**Table 4: Average values for significant terminal values in the group of students-mathematicians (according to the method of M. Rokich)**

Education (the breadth of knowledge, a high general culture)	Responsibility (sense of duty, ability to keep one's word)	Rationalism (the ability to think sensibly and logically, to take deliberate, rational decisions)	Efficiency in business (diligence, productivity in work)
7,8	8,6	8,2	10,8

In accordance with the data in Table 4, the most important among terminal values among students-mathematicians is the effectiveness in cases. Consequently, students-mathematicians are focused on a specific result, on efficiency and productivity in the work as a whole. Then approximately the same mathematicians evaluate the value of such values as responsibility and rationalism, the desire for education, for a high general culture.

Now let's turn to the list of instrumental values. The average values for significant instrumental values are presented in Table 5.

**Table 5: Average values for significant instrumental values in the group of mathematical students (by the method of M. Rokich)**

The material secure life (lack of material difficulties)	Knowledge (the possibility of expanding their education, outlook, common culture, intellectual development)	Productive life (the fullest use of their capabilities, strengths and abilities)	Development (work on oneself, constant physical and spiritual improvement)
8,9	10,5	10,5	9,1

According to the average scores presented in Table 5, the most significant instrumental values of students-mathematicians are productive life, maximum use of their abilities, the value of cognition, expansion of one's own outlook, a common culture and education, the value of development, which includes constant spiritual and physical self-improvement and the value of a financially secure life.

And now let us turn to a comparison of the values of these two groups.

Comparative analysis of the obtained results of the study of terminal and instrumental values of students-psychologists and students-mathematicians by the statistical method of studying «T-criterion of Student» shows that there are no significant differences between them.

We also studied the social values of the personality of students-psychologists and students-mathematicians.

In the group of psychology students, intellectual (15%), professional (15%) and family values (15%) are more often than others, that is, education, profession and family are the priority in life. The physical values (13%), that is, the maintenance of good physical form, financial (12%), spiritual (12%) and social (8%) values are observed less frequently. And the least important for this group of respondents are public (9%) values.

Next, consider the distribution of social values in a group of students-mathematicians.

In the group of mathematical students, intellectual values (17%) and physical values (16%) are more common than others. So, students-mathematicians are more focused on education and maintaining a good physical shape. They are somewhat less likely to have financial (15%) and family values (15%), that is, for them material priority and family are an important priority too. More rarely they have professional values (11%), that is, career growth. And very rarely in the value of social (9%), spiritual (8%) and social (8%) values are observed.

When comparing the distribution of social values of students-psychologists and students-mathematicians, the average scores shown in Table 6 were obtained.

**Table 6: Average score for social values in groups of students-psychologists and students-mathematicians**

Values	Students-psychologists	Grades in terms of average scores	Students-mathematics	Grades in terms of average score
Professional	187,1	1,5	130,3	5
Financial	149,4	6	168,2	4
Family	176,8	3	170,6	3
Social	139,4	7	98,8	7
Public	118,8	8	86,8	8
Spiritual	159,7	5	103,8	6
Physical	166,5	4	178,2	2
Intellectual	187,1	1,5	190,6	1

According to the average scores presented in Table 6, we can say that intellectual values are equally priority for psychology students and mathematics students. At the same time, their importance for mathematic students is more pronounced than for psychology students. For students of psychology, intellectual and professional values are equally important. For mathematical students, in addition to intellectual, physical and financial values are significant. The importance of family values is almost the same for both groups of respondents. And on spiritual, social and social values, average scores for students-psychologists are higher, which may directly be associated with the awareness of the peculiarities of future professional activity.

## CONCLUSIONS

A comparative analysis of the obtained results of the study of terminal and instrumental values of students-psychologists and students-mathematicians by the statistical method of studying «T-criterion of Student» shows that significant differences in professional, financial, social, social, spiritual, and physical values have been revealed between them.

**Table 7: Results of statistical analysis of data on the study of social values of students-psychologists and students-mathematicians by the statistical method of studying «T-criterion of Student»**

№	Values	$t_{эмн}$	$t_{крит}$	p
1.	Professional	<b>11,8**</b>	2,65	$p \leq 0.01$
2.	Financial	<b>3,5**</b>	2,65	$p \leq 0.01$
3.	Family	0,8	1,99	$p \leq 0.05$
4.	Social	<b>8,5**</b>	2,65	$p \leq 0.01$
5.	Public	<b>8,6**</b>	2,65	$p \leq 0.01$
6.	Spiritual	<b>9*</b>	1,99	$p \leq 0.05$
7.	Physical	<b>2,9**</b>	2,65	$p \leq 0.01$
8	Intellectual	1	1,99	$p \leq 0.05$

Thus, based on the analysis of the results of the study, it can be concluded that psychological students, in contrast to mathematic students, are distinguished by more pronounced professional, financial, social, public, spiritual, physical values and practically do not differ in the personality orientation.

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