

Features of adaptation and adaptive capabilities of first-year students with different strategies for translating meanings

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Abstract. Successful adaptation of students to the University environment is a prerequisite for effective educational and professional activities and the formation of a professional personality. The article describes the study of adaptation and adaptive capabilities of students with different strategies for translating meanings, the relationship between verbal and non-verbal activity of students and their adaptation to higher education, and adaptive capabilities. The sample was made up of the first year students studying in the areas of Psychology and Linguistics. A total of 78 people participated in the study, including 56 girls, 22 boys aged 17-20 years ($M=17.9$; $SD=0.58$; 71.8% of girls). The following methods were used: survey-method "strategies of meaning transfer" by E. A. Suroedova, the method of "Adaptation of University students" by T. D. Dubovitskaya, A.V. Krylova, multi-level personality questionnaire (MLE) of "Adaptability" A. G. Maklakova and S. V. Cherniyarina; statistical methods (descriptive statistics, Mann Whitney U test, Kruskal-Wallis test, Wilcoxon Rank-Sum Test, Spearman rank correlation coefficient). The study established differences in the adaptation and adaptability of first-year students with different strategies of meaning transfer, and revealed the relationship with the adaptive capabilities of students and verbal activity. The results of the study can be useful for psychological services to help students adapt and develop communication skills, namely the ability to translate meanings, and researchers in the field of educational psychology.

1 Introduction

Adaptive capabilities and the ability to adapt to changing environmental conditions are among the most important factors that determine the success and effectiveness of a person in his activities. A person's life path involves passing through several stages, each of which is associated with a change in the social environment and a collision with new living conditions, adaptation to them. The change in the social environment of development, such as the transition from preschool to school, from school to University, undermines mental strength, and in some cases can lead to functional impairment and loss of integrity of system of relations between subject and object adaptation [1]. Adaptive human behavior leads to balance of all elements of the "human-environment" system. This situation is typical for all

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types of personality adaptation, which is considered in modern Russian psychology as an active, purposeful process of resolving conflicts that arise as a result of interaction with a new natural or social environment [2]. In foreign studies, adaptability is understood as the ability of a person to adapt their thoughts, behavior, and emotions to changing, new, or uncertain requirements [3].

Various aspects of the process of students' adaptation to new levels and stages of education are considered by many domestic and foreign scientists. In works of Sorina Darjan, Roman Ioana, Vac Calin [4] an attempt to reveal the nature of the fundamental relationship between adaptive behavior and social intelligence of students was done. The authors conclude that the development of students' emotional intelligence is the key not only to personal and professional success in higher education, but also to positive self-affirmation, which is useful for finding a job in the labor market.

Adaptive capabilities are often considered in relation to the students' academic success. The results of studies by Bailey Thomas Hamilton, Phillips, Lisa J. showed that adaptability and internal motivation are closely related to well-being and academic success, and external motivation is associated with low academic success and unsatisfactory grades [5]. Rebecca Collie, Andrew Jay, and Jay Martin investigated the subject-specific adaptability of students to mathematics and found that adaptability reports predict students' mathematical engagement and mathematical achievement. However, it was found that adaptability is not associated with the achievement of students' literacy [3].

The research of Russian and foreign scientists describe pedagogical technologies that contribute to the successful adaptation of students to higher education. The importance of specific technologies and academic disciplines in promoting successful adaptation of students was shown by Abakumova Irina V., Mironenkova Natal'ya N., Pen'kov Denis V. and A. Yu. Lakhtin [6]. The impact on the academic success of medical students in specially adapted learning environments that take into account the level of student readiness to solve educational problems and their perception of task difficulties are considered in the works of Gemma Corbalan, Liesbeth Kester, Jeroen J. G., van Merriënboer [8]. The authors proved that specially created conditions lead to more effective learning in combination with less effort spent on completing educational tasks, as well as to greater involvement of students in completing tasks.

The specifics of socio-psychological adaptation of students are considered in the works of Ji-yeon Lee, Ayse Ciftcib [9], B. G. Meshcheryakov and G. I. Sobolev [10], Ryumshina L., Pishchik V., [11], Kihtan V. V. [12] Meskhi B., Ponomareva S., Belousova A. [13] and showed the influence of psychological support to students in the initial period of their education on the success of their adaptation to the University environment.

Research by Russian and foreign psychologists indicates the connection of communicative qualities and the ability to translate personal meanings, values and knowledge with the success of a person's entry into a new socio-cultural environment. In other words, the features of the adaptation process are related to the student's ability to convey the message, the ability to convey their ideas logically, clearly and easily to the communication partner, and clearly formulate their thoughts for the listener. Meaning transfer is the ability to translate personally significant information, meanings, and values [14]. The process of meaning transfer is a complex phenomenon involving the use of verbal and non-verbal means of communication and is expressed in verbal and non-verbal activity during the transmission of personal and semantic information. E. A. Suroedova experimentally identified strategies of meaning transfer based on the ratio of verbal and nonverbal activity: passive, balanced, emotionally dominant, cognitive-dominant, active strategies [15].

Geoffrey Nunberg gives the following definition: "meaning transfer" is a linguistic mechanism that allows you to use the same expression to denote disjoint types of things [16].

Foreign research often raises the question of effective and ineffective ways of translating meanings. In studies on the unconscious transfer of meaning, Maria Galli and Gerald Gorn [17] found that semantic conditioning can occur unconsciously, can have significant and significant consequences for the evaluation of the object and affects subsequent behavioral responses through the processes of conceptual disorientation. Feinberg M., Willer R. [18] raises the question of effective and ineffective communication strategies for resolving political differences. The authors suggest using a reframing technique to reduce hostility between rival political groups. The technique of moral reframing works as follows – when a position that an individual usually does not support is formulated in accordance with their moral values. In this case, it can be an effective means of political communication and persuasion. The research by Lee D., Kim, and S. Y. describes the specifics of social-affective strategies and strategies for semantic negotiations [19].

Equally important are the studies of verbal and nonverbal behavior of the individual and the factors that influence the formation of various strategies of verbal behavior. Kinderknekht Anna S., Iakovleva Iuliia A. [20] in their study identified verbal and non-verbal means that allow the mediator to remain impartial and independent in mediation during negotiations. Personal and individual qualities are also conditions for the formation of strategies for translating meanings and values Camiel J. Beukeboom, Martin Tanis, Ivar E. Vermeulen [21] studied spontaneous utterances of extrovert and introvert students. It turned out that active verbal behavior, which is manifested in extroverts, is characterized by a higher level of abstract interpretation, while introverts tend to stick to specific facts. Features of the formation of the ability to transfer meanings in students of different courses in the educational process are considered in the works of Suroedova E., Tushnova Yu. and Belousova E. And it was found that students of the third year have the highest indicators of communicative competence and verbal activity [22]. In the works of Nikolenko O., Zheldochenko L. and Lomova N. [23], the role of semantic organization of the educational process in the formation of students' values is shown.

2 Materials and Methods

The study was attended by the first year students studying in the areas of Psychology, Linguistics. A total of 78 people participated in the study, including 56 girls, 22 boys aged 17-20 years ($M=17.9$; $SD=0.58$; 71.8% of girls). The following methods were used: survey-method "strategies of meaning transfer" by E. A. Suroedova [15], the method of "Adaptation of University students" by T. D. Dubovitskaya, A.V. Krylova [24], multi-level personality questionnaire (MLE) of "Adaptability" A. G. Maklakova and S. V. Chermyanina [25]; statistical methods (descriptive statistics, Mann Whitney U test, Kruskal-Wallis test, Wilcoxon Rank-Sum Test, Spearman rank correlation coefficient).

The purpose of the study was to identify the features of adaptation and adaptive capabilities of the first-year students with different strategies of meaning transfer.

Two assumptions were made: 1) the process of adaptation and adaptive capabilities may differ among first-year students with different strategies of meaning transfer; 2) there may be a relationship between verbal/non-verbal activity and adaptation to higher education and adaptive capabilities of first-year students.

3 Results

The sample was divided into groups of students by leading strategies for meaning translation: group 1 – students with a balanced strategy of meaning transfer (BS) (30%), group 2 – students with an emotionally-dominant strategy of meaning transfer (ES) (35%); group 3-

students with an active meaning transfer strategy (AS) (19%); group 4-students with the cognitive-dominant strategy of meaning transfer CS (16%).

The assumption about differences in adaptation and adaptive capabilities of the respondents was verified using the Kruskal-Wallis test and pairwise comparison of the Mann Whitney U test groups (Fig. 1).

Group / Test scale	Asg	Ala	Pap	Br	Cp	Mn	Mv	Ar	Mr
Group 1 (BS)	n = 46 M=10,9 SD=3,2	M=10,1 SD=3,3	M=3,1 SD=2,0	M=4,2, SD=2,4	M=4,7 SD=1,7	M=4,6 SD=1,4	M=5,4 SD=2,1	M=6,2 SD=2,5	M=4,5 SD=1,4
Group 2 (ES)	n = 22 M=11,5 SD=3,6	M=11,1, SD=3,8	M=2,1 SD=1,1	M=3,1 SD=1,5	M=4,8 SD=0,9	M=4,0 SD=1,2	M=4,9 SD=1,2	M=5,9 SD=1,4	M=3,8 SD=1,0
Group 3 (AS)	n = 18 M=11, SD=3,8	M=10,8 SD=3,2	M=3,2 SD=1,7	M=4,0 SD=1,8	M=4,7 SD=1,4	M=5,3 SD=1,3	M=5,5 SD=1,5	M=6,1 SD=1,7	M=4,4 SD=,9
Group 4 (CS)	n = 38 M=10,8 SD=3,4	M=11,7 SD=3,3	M=3,6 SD=2,0	M=4,4 SD=2,0	M=4,7 SD=1,5	M=5,3 SD=1,5	M=6,0 SD=1,7	M=6,4 SD=2,1	M=4,8 SD=1,2
Kruskal-Wallis test	0,822	4,718	8,618	5,102	,229	13,924	7,549	,927	9,724
p	,844	,194	,035*	,164	,973	,003**	,056	,819	,021*
Comparison group	-	Group 1-4	Group 1-2, Group 2-3, Group 2-4,	Group 2-4	-	Group 2-3, Group 2-4	Group 2-4	-	Group 1-2, Group 2-4
Mann Whitney U test	-	644,5	360,5 120,5 240,5	267,5	-	98,0 203,0	240,0	-	344,5 228,0
p	-	,038*	,048* ,034* ,005**	0.019*	-	,006** ,001**	,005* *	-	,029* ,002**

Fig. 1. Features of adaptation and adaptive capabilities of students with different strategies of meaning transfer.

Notes: Asg - Adaptability to the study group, Ala - Adaptability to learning activities, Pap - Personal adaptation potential, Br - Behavioral regulation, Cp - Communication potential, Mn - Moral normativity, Mv - Maladaptation violations, Ar - Asthenic reactions, Mr - Mental reaction; ** – significance level 0.01; * – significance level 0.05

It was found that there are significant differences in the adaptation and adaptive capabilities of students with different strategies of meaning transfer.

The hypothesis about the relationship between verbal/nonverbal activity and the adaptation process and adaptive capabilities of students was tested using the Spearman rank correlation coefficient (figure 2).

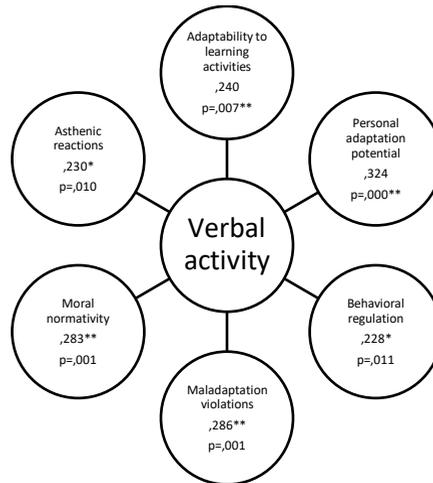


Fig. 2. Pleiad of interrelation of verbal activity, adaptation and adaptive capabilities of the first-year students.

It is established that there are no correlations between nonverbal activity and adaptation, adaptive capabilities of students, but significant correlations between verbal activity and adaptability of students are revealed.

Positive relationships were established between verbal activity and the scales "adaptation to learning activities", "personal adaptive potential", "behavioral regulation", "moral normativity", "asthenic reactions and states", "maladaptation disorders".

4 Discussion

The results of the study of adaptation and adaptive capabilities of the first-year students with different strategies of meaning transfer allow us to describe the quantitative characteristics of students' adaptability, as well as the relationship of verbal activity with adaptive capabilities and adaptation of the first-year students to the University.

There are differences in the scales of "personal adaptive potential" and "moral normativity" between groups of the first-year students with different strategies of meaning transfer. Students of group 2 (ES) are characterized by an inadequate level of self-esteem, a desire to violate the rules and norms accepted in society, and low socialization. However, this group of students shows higher adaptive abilities: they easily adapt to new conditions of activity and groups, quickly orient themselves in a changing situation and develop a strategy for their behavior, their functional state and performance during the adaptation period remains within the normal range.

Other data were obtained in a study by Lundquist L. M., Shogbon A. O., Momary K. M., Rogers H. K. [26], who studied students' self-esteem and teachers' assessment of success and communication skills. It was found that students' self-assessment of communication skills was low, and teachers rated students' academic success and communication skills higher. We assume that these data were obtained on a sample without taking into account the students' communication skills. Our study also showed the specifics of adaptation and self-esteem in students with an emotionally dominant strategy of meaning transfer.

The results of a pair comparison showed that first-year students of group 1 (BS) differ from students of group 4 (CS) with lower indicators in adapting to educational activities. Students of group 4 (CS) have higher indicators of adaptation to learning activities, that is, they take a more responsible approach to completing educational tasks, try to submit reports

on completed projects during the course, and have more developed verbal abilities, which allows them to respond correctly, logically and coherently in the classroom. Similar results are found in the works of Hanson J. H., Williams, J. M. [27], who studied the impact of students' understanding of the problem and its explanation on their self-esteem and communication and found that explaining the problem really helps students improve their self-esteem and communication quality, although the impact on overall course performance was not as significant as expected. In our study, students of group 4 (CS) have more developed communication skills and thinking abilities, which in turn has a positive effect on the assimilation of educational material.

Students of group 2 (ES), in contrast to students of group 4(CS), assess a higher level of neuropsychic stability, self-regulation of behavior and activity, consider their self-esteem high, and the perception of the surrounding reality and situations adequate.

However, students in group 2 (ES) differ from students in groups 1 (BS) and 4 (CS) in more pronounced psychotic reactions and States. They are more likely to be impulsive and aggressive, violate moral orientations, generally accepted norms of behavior, requirements of behavior in higher education, and are prone to showing suspicion, anger, and delinquency. In addition, in group 2 (ES), students with low scores on the "Maladaptation disorders" scale are more common, which requires the curators of study groups and psychologists to pay attention to this group of (ES) students.

Description of characteristics ability to mislabeled and adaptive abilities of students can be seen through the correlation of verbal and nonverbal activity with the processes of adaptation and adaptive capacity of first-year students. First, it should be noted that there are no significant links between non-verbal activity of students and indicators of the first-year students' adaptability. Positive relationships were established between students' verbal activity and the following indicators of adaptability: "adaptation to learning activities", "personal adaptive potential", "behavioral regulation", "moral normativity", "asthenic reactions and states", "maladaptation disorders".

The data indicates that the higher the student's verbal activity, the more often he experiences the following: ease of learning subjects and perform the study tasks, the desire to play in the classroom, participate in discussions, to ask questions, to express their individuality in the classroom, convincingly and coherently express their thoughts; the ease of adaptation to new conditions of activity and team orientation confident in new situations and develop successful strategies of behavior, conflict-free, high emotional stability, in the period of adaptation of the functional status and health remain at normal; high level of neuropsychic sustainability and behavioral regulation, high self-esteem, adequate perception of reality; a high level of socialization, an adequate assessment of their status and role in the team, focus on the observance of generally accepted norms of behavior; low anxiety, high level abilities for a long educational activities, high tolerance to adverse factors of the educational environment, positive emotional background, adequate or positive perception of the present and the future, motivation for learning activities.

The data obtained are consistent with the research of foreign scientists. Sturino D., Selvaggi D. proved that the possession of communication skills is related to students' anxiety [28]. The results of the study of the correlation of students' oral communication proficiency with their overall academic performance in the work of Mahmud M. M. [29] show that achieving competence in oral communication is an imperative for ensuring that students do well in their studies.

5 Conclusions

The results of the study of adaptation, adaptive capabilities and strategies of students' brain transfer allowed us to draw the following conclusions.

Students with emotional-dominant strategy mislabeled differ from other students by their higher level of adaptive capacity (easily adapt to new conditions and activities of the group, quickly orient in a situation and change the strategy of their behavior, functional status and health in the period of adaptation remains in the normal range), but they have identified inadequately inflated level of self-esteem, the desire to break socially accepted rules and norms, low socialization. Low indicators of adaptation to learning activities prevail among students with a balanced strategy of meaning transfer, and students with a cognitive-dominant strategy show higher results of adaptation to the study group.

It is established that there is a relationship between verbal activity and adaptation and adaptive capabilities of the first-year students. The results of the study showed that the higher the students' self-assessment of verbal activity, the easier it is for them to adapt to educational activities and the team, there is emotional and neuropsychic stability, high performance, adequate perception of the surrounding reality, a high level of socialization and normal self-esteem, a positive emotional background, low anxiety, they are conflict-free.

Research prospects are aimed at studying the adaptation and adaptive capabilities of students to higher education in the context of distance learning, the influence of personal characteristics on the success of adaptation. In addition, we plan to study the typological and individual characteristics of students with different meaning transfer strategies.

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