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**PSYCHODYNAMIC INFLUENCE ON FIRST AND SECOND YEAR
STUDENTS' ADAPTATION TO EDUCATIONAL ACTIVITY**

B.P. Yakovlev (a), M.A. Stavruk (b), T.B. Dumova (c)*.

*Corresponding author

- (a) BE HE "Surgut State University" of KhMAO-Ugra, 628400, Russia, Tyumen region, Surgut, Lenin Pr., 1, E-mail: boris_yakovlev@mail.ru, +79125194164
(b) BE HE "Surgut State University" of KhMAO-Ugra, 628400, Russia, Tyumen region, Surgut, Lenin Pr., 1, E-mail: marinastav-17@yandex.ru, +9226524824
(c) BE HE "Surgut State University" of KhMAO-Ugra, 628400, Russia, Tyumen region, Surgut, Lenin Pr., 1, E-mail: dumova@inbox.ru, +79222546416:

Abstract

The article presents the research results concerning the psychodynamic properties' influence on the first and second-year students' adaptation to the educational activity at Surgut State University (SurSU) and Surgut State Pedagogical University (SurSPU).

There were 87 people (students of the first (47 people) and the second (40 people) courses) by the humanities' specialties and directions, taking part in the experimental study. There were 49 girls and 38 boys aged on average 17.7. According to the existing literature analysis of the given problem, the results of the study showed that the temperament properties influence not only the dynamic and individual style of the students' activity, but also the students' adaptation to the educational activity, as well as, the study group. It is a well-known fact that the psychodynamic temperament features have got a formally-dynamic character because they are not associated with the specific socially-significant content of any educational situation or educational process in total. The activities' results directly affect the adaptation process in the specific conditions of the educational process. Thus, today the problem of relationship between the students' temperamental characteristics and their adaptability to their learning activities and the cooperative learning group is of great scientific interest. The problem of our research is the study of the psychodynamic features' influence on the students' adaptation in the conditions of their intense learning activity.

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Keywords: Educational activity, students, adaptation, success, psychodynamic features, temperament.



1. Introduction

A modern student as a subject of the educational process in the system of higher professional education should be oriented not only to the knowledge and skills' formation (ZUN), but also to the development of the professionally trained (competent) and successfully adapting personality, who can not only competently learn the educational material, but also understands how to socialize in a primary student group and to realize his capabilities independently in accordance with the chosen specialty (Andreeva, 1973). The main stage on this way will be a successful adaptation of the first and second-year students to the study conditions at the University.

Various researchers have repeatedly noted that at the current system of education "the excluded students" is not only the individuals, not able to learn any educational material, but also those who in spite of possessing the sufficient abilities just could not adapt to some of the requirements or the academic load at the very initial adaptation stage at the university (Vasilyeva, 1984; Dubovitskaya & Krylova, 2010; Yakovlev & Zhukova, 2011; Stavruk, 2017). What problems come to the forefront for the students-beginners, who are ready to comprehend higher school basics with a certain profile orientation?

If to list them, there will be quite a lot of items, based on the domestic scientists' publications. It is necessary for them to define a new social status and new social roles' development; new values' acquisition; the student's inadequate interaction with the social environment; the ability to select the ways for receiving, processing, assimilation, implementation of information; the inability to structure their educational and extracurricular time, etc. (Andreeva, 1973; Vasilyeva, 1984; Dubovitskaya & Krylova, 2010; Yakovlev & Zhukova, 2011). The problem of the first and second year students' adaptation to the study conditions in a higher education institute is one of the main tasks that are currently being studied in Psychology and Pedagogy of higher education (Andreeva, 1973). At the same time, the specificity of the students' adaptation process at universities is determined by the difference in teaching methods, both in secondary and higher schools.

For example, a first-year student lacks some skills, required at the University for the productive program acquisition. The attempts to compensate it by means of conscientiousness do not always lead to success. It takes a long time before the student adapts to the new learning environment. It often leads to the significant differences in the learning activity's success. In addition, a weak continuity between the secondary and higher education systems; an originality of the educational process organization and higher school methods of teaching; a large mental and information load and a lack of independent work skills – often cause the emotional tension, which can lead to the negative reflexive understanding of professional and personal self-determination (Vasilyeva, 1984).

These issues and many other ones can also become problematic for a capable, successful, but not quickly adapting sophomore. Recognizing the fact that the learning process adaptation is one of the main problems in Acmeology and Pedagogy of higher education, most scientists pay attention to the adaptation factors' research, i.e. the conditions that affect the process of entering a new educational environment by the student (Vasilyeva, 1984; Rakovich, 2002). Many researchers consider the psychodynamic features of individual activity to be one of the main psychological factors, affecting the students' adaptation to the higher education system and their future professions (Andreeva, 1973; Rusalov, 1988).

We mean by psychodynamic features the individual-typological features of the human temperament, based on the natural (individual) properties, which determine the individual differences of every person (Rusalov, 1989, 1986, 2005).

The psychodynamic features mean the formally-dynamic person's properties, designated as a general temperament category which is considered to be an independent psyche formation, reflecting its predominantly energodynamic aspects (Rusalov, 1992, 1988, 1985).

The research of the student individual characteristics is important and relevant both in theoretical and practical terms. In the theoretical aspect, it relates to the development of more specific and objective understanding of such synonymic notions for psychodynamic characteristics as: individual differences, individual-typological characteristics, individual properties of organism, neural properties, individually-psychological properties of temperament, mental properties of a personality, and socio-psychological individual properties.

In the practical aspect, it includes the development of criteria for the educational activity's effectiveness and success and the adaptive capacity in conditions of intense training loads, based on individual and differentiated approaches (Yakovlev & Zhukova, 2011). The research of the students' individual and age peculiarities and their role in the educational activity process is reflected in publications by B.G. Ananiev, A.Yu. Akimova, L.A. Golovey, A.V. Dmitrieva, I.S. Kon, I.V. Kuznetsova, N.V. Kuzmina, T.B. Lisowski, N.V. Nizhegorodtseva, Yu.P. Povarenkova, N.I. Reinwald, N. Rose, V.M. Rusalova, I.M. Slobodchikov, L.D. Stolyarenko and others.

However, the influence of the students' individually-typological peculiarities on their adaptability and success during educational activity remains as an understudied area in Pedagogy and Psychology. So, there are some not fully resolved issues related to the definition of the individual-typological composition of students' types with different indicators of adaptability for learning activity; individualization and differentiation of study at a higher school, considering the individual-typological characteristics, of students, etc.

The scientific research and practical work with students show that the greatest difficulties during their educational activity usually arise at the beginning of a training course, because it is a period of students' adaptation and the psychological readiness' formation to University education (Yakovlev & Zhukov, 2011). In this regard, the problem of the individual-typological features' role for the student adaptation and success in educational activity is relevant to study at the first stage of University education.

2. Problem Statement

The main objective of the study was to identify temperamental characteristics on the adaptation of students to educational activities.

3. Research Questions

The main research question is what comprises the relationship of psychodynamic characteristics with indicators of adaptation to educational activity of students at the initial stages of learning.

4. Purpose of the Study

The aim of the research is to study the relationship of the individual typological features with the indicators of the student adaptation for the educational activity at the first and second years of study at the University.

5. Research Methods

There were the methods of theoretical and empirical analysis used for researching the state of the problem. To explore the individual characteristics of the first and second year students, there was a questionnaire by V. M. Rusalova – to determine the formal-dynamic characteristics (APDSI – 150 questions) (Rusalov, 1992, 1988, 1985, 1989). The questionnaire of formal-dynamic properties of the person by Rusalova is used for diagnosing the properties of a "subject-activity" (psychomotor and intellectual spheres) and "communicative" temperament aspects. To solve this scientific problem, we considered the indices and temperamental types, reflecting different degree of formal and dynamic properties' integration at the person (Rakovich, 2002). 1. Index of Psychomotor Activity (IPA). 2. Index of Intellectual Activity (IIA). 3. Index of Communicative Activity (ICA). 4. Index of Total Activity (ITA). 5. Index of Overall Emotion (IOE). 6. Index of Total Adaptability (ITA). For determination of educational activity adaptability and success, we used "Technique of Research of Student Adaptability at Higher School" by Dubovitskaya and Krylova (2010).

This technique can be used for solving the following problems: 1) identification of experiencing difficulties during the student's adaptation to educational activities and a student group; 2) methodological support of the student psychological adaptation at higher school; 3) research of the correctional and educational work's effectiveness.

Methods of primary descriptive statistics; parametric (t-student criterion) methods of data analysis; methods of correlation analysis were used for the results processing. Mathematical data processing was carried out by means of such computer programs as: "Statistica 6.0" and "SPSS 13 for Windows".

The total sample size involved 87 persons (students of the first and second years of study - 47 persons and 40 persons) of humanities' specialties and study directions. There were 49 girls and 38 boys aged 17.7 on average.

The reliability of the research results and conclusions is provided by a comprehensive theoretical analysis of the relationship problem of the individual-typological features based on the students' educational activity adaptability indicators; the use of a reasonable psycho-diagnostic complex of techniques; the representativeness of test subjects; the use of the mathematical statistics methods.

6. Findings

Due to the comparative indicating experiment based on the research methods, the severity of the students' dynamic characteristics and adaptability were analyzed. The pilot study was carried out in a few stages.

In accordance with our experimental study, at the initial stage – with participation of the first and second year students of SurSU and SurSPU, the following results were obtained. The first-year students have a lower adaptability, as compared to sophomores, a study group concerning the educational activity.

Accordingly, freshmen and sophomores have got the following adaptability indicators to a study group: I course – 12.1 points and 15.0 points; $p < 0.01$, i.e. adaptability to a study group of the first-year students, on average, remains lower than that of the second-year students. The students' adaptation to their educational activity is characterized by a similar ratio. The first-year and the second-year students have got the following indicators of adaptation to the educational activity: I-st course – 12.3 points and 14.7 points; $p < 0.05$, i.e. from course to course the educational activity adaptation of the first-year students is, on average, lower than that of the second-year students.

According to the test developer Dubovitskaya and Krylova (2010), the high performance on a scale of adaptability to a study group indicates that the student is accepted in the group and does not feel like a "white crow" and is not subjected to mobbing, i.e. psychological pressure: he easily finds a common language with his groupmates, follows the accepted group norms and rules. If necessary, he can turn to groupmates for help, demonstrates the ability to be proactive and to take the initiative.

The low rate on the adaptability scale to a study group reflects the communicative and emotional difficulties experienced by a student in communication, behavior, personal relations with his groupmates. The student is experiencing the psychological mobbing and bossing (Yakovlev & Babushkin, 2016) when he feels the group's unfriendliness and shows restraint in making acquaintances and establishing personal relationship. It is difficult to find a common language with the fellow students; he does not feel understanding and his views' acceptance by his groupmates; cannot appeal to them for help (Dubovitskaya & Krylov, 2010).

The high indicators on the adaptation scale to educational activity indicate that the student easily adapts to the training loads on the taught subjects; as well mastering the academic material efficiently; and in due time executes the learning tasks; has got a good interaction with his teachers.

The low performance on the adaptation scale to educational activity suggests that a student develops the training material and overcomes the workloads with a large mental load; it is difficult to speak and express his thoughts during training sessions. He has got difficulties with the teachers - both personal and educational. Even when it is necessary to have some communicative interaction, he avoids contacts; reduces the need of affiliativeness, i.e. a person's need to communicate with fellow students, teachers; he does not have a desire to contact with other people; to establish and maintain acceptable or good interpersonal relations; to maintain friendly relations in the study group.

He needs additional consultations on many subjects; cannot express his individuality and ability in the grouproom (Dubovitskaya, & Krylov, 2010, Yakovlev & Zhukov, 2011).

In addition, by identifying the absolute and relative academic performance of students during examination session, observing and interviewing students, we also interpreted and confirmed our findings by means of the used methods.

Further on, at the second stage of the research, based on the ascertaining experiment research method (Rusalov, 2002), it was possible to analyze the specificity of psychodynamic features in students of two courses (87 people).

It should be noted that the comparative analysis on the t-student criterion, the results of the formal-dynamic properties' expression did not reveal the significant differences between the first and second courses. Therefore, the analysis and interpretation were carried out on the whole sample (87 respondents).

According to the received primary indicators, it is necessary to note a high level of formal and dynamic properties' expression equal to 26% of the studied sample, a low level – 20%, an average level – 54% (see Fig.1).

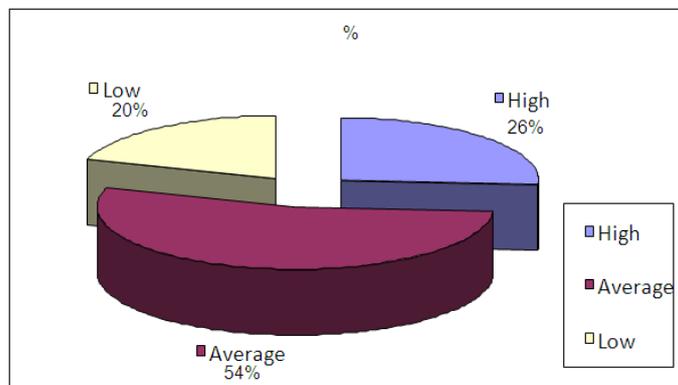


Figure 01. Graph of formal-dynamic properties' intensity levels (by V. M. Rusalov)

According to the results of the research, the highest rates of the formal-dynamic properties were obtained (tab. 1) in the psychomotor sphere: psychomotor speed (PsS) – 45.3 points; low indicators: emotional psychomotor (EPs) – 21.7 points. In intellectual sphere there were: high rates: speed intelligent (SI) – 39.5 points; low rates: erginity intelligent (ErI) – 22.6 points. In communication field there were high rates: speed communication (SC) – 45.2 points, low rates: emotional communication (EC) – 21.6 points, respectively.

According to the obtained results, the first and second year students have the highest rates in three areas: psychomotor, intellectual and communicative, shown by the formal-dynamic quality – speed. It allows one to identify a high rate of psychomotor behavior; a high speed in various types of motor activity; a high speed of mental processes in intellectual activity implementation; a light, smooth speech, fast verbalization and a high speed of speech activity of these students.

These features are more typical for such temperamental types as choleric and sanguine. The students with a low rate in these area tend to weak emotional expression, which is interpreted by such psychomotor as: a low sensitivity (indifference) to the discrepancy between the planned motor action and the real result of this action; the concern absence in case of non-performance or poor performance of physical work, a sense of calmness, self-confidence during the physical work performance.

In the intellectual sphere they demonstrate a low level of intellectual opportunities; unwillingness of mental stress; low involvement in the process associated with the mental activity; a narrow range of intellectual interests. In communicative sphere, they demonstrate a low sensitivity to communication failures; a sense of joy and self-confidence during interaction with other people. These individual features are characterized such temperamental types as phlegmatic and melancholic.

Table 01. Final indicators of levels by the method "Formal-dynamic properties research" (by V.M. Rusalov)

| Sphere / Indicators (points) | | | | | | | | | | | | |
|------------------------------|------------------------------|--------------------------------|----------------------------------|---------------------------------|----------------------------------|------------------------------|------------------------|--------------------------------|------------------------------|--------------------------------|--------------------------|---------------------------------|
| | Psychomotor sphere | | | | Intellectual sphere | | | | Communicative sphere | | | |
| Levels | Psychomotor Erginity (PsmEr) | Psychomotor Plasticity (PsmPl) | (Psm) Psychomotor Speed (PsmS) / | Psychomotor emotionality (PsmE) | (ErM) Intelligent Erginity (IEr) | Intellectual Plasticity (PI) | Intelligent Speed (IE) | Intellectual Emotionality (IE) | Communicative Erginity (CEr) | Communication Plasticity (CPl) | Communicative Speed (CS) | Communication Emotionality (CE) |
| High | 0.5 | 8 | 5.3 | 2.5 | 30.4 | 2.3 | 9.5 | 6.6 | 1.6 | 8 | 5.2 | 7.4 |
| Low | 5.5 | 7 | 7.5 | 1.7 | 22.6 | 4.1 | 8.4 | 3.7 | 5.4 | 2.5 | 6.5 | 1.6 |

The third stage of the research involved identifying the indices'. To solve several scientific and practical problems, it is necessary to consider not only particular formal-dynamic property's value, but also indexes reflecting different degrees of individuals' formal-dynamic properties integration.

The following 6 most important indices of person's formal-dynamic properties are suggested for making analysis (Rakovich, 2002). Based on the following indices, the researchers point out the fact that it is a fairly large number of temperamental types' variants that can be distinguished. But these types' identification and groupification was not a part of our research objectives, it is a matter of future research.

Table 02. Indexes of integration degree of formal-dynamic properties of students' individuality in two courses: first and second

| Index /Course | Index of Psychomotor Activity (IPA) | Index of Intellectual Activity (IIA) | Index of Communication Activity (ICA) | Index of General Activity (IGA) | Index of General Emotionality (IGE) | Index of Total Adaptability (ITA) |
|---------------|-------------------------------------|--------------------------------------|---------------------------------------|---------------------------------|-------------------------------------|-----------------------------------|
| 1 course | 99.2 | 88.1 | 96.5 | 283.8 | 89.1 | 194.7 |
| 2 course | 101.9 | 98.2 | 101.1 | 301.2 | 80.9 | 220.3 |

According to the obtained results on indexes and degrees of the individual formal-dynamic properties' integration of the first and second year students, there are high indicators on Index of General Activity (IGA). Index of General Activity (IGA) is equal to the sum of the scores of all active scales in all three spheres. $IGA = IPA + IIA + ICA$. The IGA varies from 108 to 432. The average value (norm) is equal to 270 ± 36 , i.e. from 234 to 306.

There are low levels of General Emotionality. Index of General Emotionality (IGE) is equal to the sum of all emotional scales in three spheres. $IGE = PsmE + IE + EC$.

The average value (norm) is equal to 90 +/- 12, i.e. from 78 to 102. And, in general, according to the experimental sample, Index of Total Adaptability (ITA) for the individual student's integration degree of formal-dynamic properties is equal to 204.6 points.

Index of Total Adaptability (ITA) is equal to the difference between Index of General Activity (IGA) and Index of General Emotionality (IGE). $ITA = IGA - IGE$. This index ranges from -36 to 432. The average value (norm) is equal to 180 +/- 48. In General, the degree of integration of the first and second year students' Total Adaptability showed a high rate of adaptation in the experimental samples.

By means of the statistical analysis of Pearson's linear correlation coefficient, it was also identified a significant relationship between the index of formal-dynamic properties (Index of Total Adaptability (ITA) by the questionnaire by V.N. Rusalova (OFDSI) and the methodology for the University student adaptation research of T.D. Dubovitskaya.

Thus, freshmen and sophomores have got, respectively, the following indicators of adaptability to the study group and Index of Total Adaptability (ITA): 1 course – $r = 0.47$, $p < 0.5$; 2 course – $r = 0.54$, $p < 0.01$, i.e. the relationship of adaptability to the study group and Index of Total Adaptability (ITA) at the first and second year students is significant in terms of reliability. A similar relationship is observed between the students' adaptation to learning activities and Index of Total Adaptability (ITA). Freshmen are at the level of $p < 0.5$; the sophomores are at the level of $p < 0.01$.

7. Conclusion

Individuality of a student is a complex education, organically connected with his age and sexual development, the social status formation, integral personality development. In this regard, individual work is part of the educational process. It requires from the teacher the ability to find the most effective methods of influence on the individual student with the aim of his comprehensive development.

Considering the individual characteristics, the teacher will be able to minimize the failures and mistakes that are inevitable in the learning process.

According to Platonov, a personality is a complex integral formation, which includes four psychodynamic, structural, interrelated and hierarchical levels (Yakovlev & Zhukov, 2011). Temperament is one of the most important elements in this structure. This fact is recognized by almost all psychologists and teachers involved in the study of temperament and its properties.

The properties of temperament have an impact not only on the procedural characteristics of activity, results, the activity's productivity, but also on the adaptation in the study group. This means that the orientation of the learning technology considering the students' psychodynamic properties can significantly increase the adaptive capacity, i.e., the active inclusion in the process of mastering knowledge and the ways of their mastering at the initial stages of learning; the realization that the results of educational and professional activities become a true asset of self-realization of the activity subject.

And the analysis of our experimental research results has confirmed that the recording of students' psychodynamic features in realizing the educational activity is a very important aspect of the individual or differentiated approach in the first-year students' educational process.

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