

Integrative Approach Applications in Tutor Support of University Students

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Abstract

Introduction. The article addresses the subject of integrative approach applications in tutor support of students during the university education. It presents a detailed description of using the integrative approach as a methodological principle that implies a comprehensive evaluation of students' personality. The aim of the article is to study the specifics of integrative approach applications in tutor support of university students. **Materials and methods.** The main methods of the study include analysis of the scientific literature on the topic of integrative approach applications in tutor support of university students, as well as diagnostic methods, such as survey, instrumental methods and statistical methods of data analysis. **Results.** Typological personality characteristics, such as activity, orientation, structure of motivation and needs, ultimate values and self-regulation, were defined. The authors evaluated the level of neural dynamics and the level of brain energy metabolism (BEM), which resulted to be significantly different in students with different educational and professional orientation. **Discussion.** It is pointed out that the integrative approach allows evaluating individual-typological personality traits and stating that people that are oriented at nonregulated activity should be included in tutor support during their professional education. **Conclusion.** The results of the study allow concluding that the models of tutor support of students might be different according to the students' educational and professional orientation.

Keywords: Integrative approach; Typological personality traits; Tutor support; University students; Individual tutor support; Group tutor support; Active methods of education; Game technologies in pedagogics.



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1. Introduction

Recently, the higher education system has been experiencing changes that concern both content-related component of the educational system and its functional, structural parts. The system of professional education provides a student with an opportunity of choosing the path of professional development within the educational profile. This becomes possible because of its multilevel nature, which can be carried out through the tutor support during the university education. Organizing tutor support of students' educational and professional activity within professional education has an enormous potential for personality development due to varying and open nature of the educational process.

Modernization of the education and its orientation at the job market demands, as well as the integration in the Bologna process and establishment of third-generation standards, aims the higher education at increasing the focus on students' self-education activities (Hopper, 2007). The focus shifts to the development of professional competency as an integrative characteristic that is rooted in students' individual demand and experience. Taken together, these factors imply varying the trajectories of professional training within the selected educational profile (Aizman *et al.*, 2014).

As stated by a number of researchers, a modern student obtained an opportunity to choose the position in life, beliefs, worldview, lifestyle and life strategy (K.A. Abulkhanova-Slavskaia, R.A. Zobov, V.N. Kelasiev, A.A. Kronik, C. Rogers, E. Fromm, and others). However, experience shows that the students are not always prepared for acting effectively in the conditions of multiple choices and creating their own strategy of professional self-development and establishment (Zeer, 2000). In these conditions, it becomes necessary to construct the pedagogical

process that would coordinate and integrate educational and mentoring efforts of the student and the university, which includes the use of various psychological and pedagogical methods for integrating tutor support of the students during their education. At the present stage of the educational system development, the studies of the university students should be organized in accordance with the principle of individuality. This principle implies that each student has an opportunity to construct his own individual educational trajectory for acquiring the knowledge that is relevant to him at the given moment (Winch, 2013).

Currently, new educational standards are being introduced in order to train highly qualified personnel. This actualizes the need in career guidance (Aizman *et al.*, 2014; Asmolov, 2010). In the majority of cases, the motives of prospective-students' choice of the educational profile are related to the popularity of a certain range of professions or the university (Asmolov, 2010; Burlutskaya *et al.*, 2001; Chistiakova and Shalavina, 2005; Chistiakova, 2013; Drozdovskii, 2007; Gordienko, 2007). This is directly related to the pressing problem of the modern Russian education and society, that is the deficit of specialists in demanded, yet unpopular, professions.

Integrative approach to studying the factors that define the educational profile includes the evaluation of typological, psychophysiological and neural-dynamics traits of a personality. It is aimed at making the choice of professional activity more objective. The authors consider the integrative approach as a methodological principle that implies a comprehensive, systematic personality evaluation at the three main levels of its manifestation – typological level, psychophysiological level and the level of neural dynamics. In turn, tutor support is considered to be one of the mechanisms of employing the integrative approach in professional education.

In the pedagogical process that is oriented at the integrative approach, tutor support of the students is aimed at reaching internal coherence between the personality with their own predispositions, which are often ambivalent (Kozlov and Novikov, 2012). Subjective reality of a student reflects personal perception of the environment around him. The development of such representation takes place during socialization in the university and presents itself as a complex phenomenon, an individual's reaction to the internal and external stimuli of the educational process. During the tutor support of the student, the authors appeal to the individual conscience as the basis for the professional conscience that develops during the interiorization of the social activity (Kovaleva, 2010). Student's participation in quasi-professional and partially professional activity gets corresponded with the life experience and develops personal affirmations and reactions that allow the student to react in the dynamic conditions in a self-sufficient manner (Gedgafova, 2013). Tutor support of the university students, which is based on the integrative approach, concerns the development of the request and the aim, as well as the self-organization of the subjective reality and personal and professional reflection.

2. Materials and Methods

In order to evaluate the legitimacy of the integrative approach, the authors conducted a study of the typological traits in students of different educational and professional orientation. The subject sample was divided in two groups. The first group included the students with educational and professional orientation at the regulated activity, i.e. the ones of nonartistic specialties. The second group consisted of the students with orientation at the nonregulated activity, i.e. the ones of artistic specialties. The study included full-time and part-time students of the junior (17-19 years old) and the senior years (20-22 years old). The students were recruited for the study in the universities of Chelyabinsk, Ekaterinburg and Kostanay (Republic of Kazakhstan). The sample included a total of 499 participants. Analysis of the neural dynamics and psychophysiological traits considered the data collected in the lab of Adaptation of the Biological Systems to the Natural and Extreme Environmental Factors of South Ural State Humanitarian-Pedagogic University. The total of 906 people were evaluated upon these parameters.

The experimental procedure included several stages. A preliminary survey was conducted to evaluate the current state of the participants. During the first stage, the authors evaluated the students' personality with methods of psychological diagnostics that were aimed at assessing the personality structure according to the systematic-functional approach. It included the diagnostics of activity, motivation, orientation, self-regulation and axiological orientations. The students were additionally tested for the predisposition to a certain type of professions (J. Holland's test).

Then, the characteristics of brain energy metabolism, in particular, the level of the steady-state potential (SSP), were analyzed. The SSP was registered with monopolar montage in accordance with the international 10-20% system with the use of Neuro-Metabolic Activity Mapper (NMAM) instrumental system ("Neuroenergetics", Moscow, 2010). This stage also included express-diagnostics of participants' performance efficiency and functional state (M.P. Moroz's method).

Finally, the statistical analysis of the obtained data was conducted.

3. Results

The conducted study showed that, despite the social-cultural transformations and expanding areas of professional activity and education profiles, certain typological traits of the modern university students (e.g., activity, orientation, structure of motivation and needs, ultimate values and self-regulation) are not different from the traits of students of the previous generations.

Education profile and social-cultural conditions also define certain traits, such as personality type in the field of professional preferences, educational motivation and priority of various life aspects (table 1). These traits serve as a basis for affiliating the students to a certain educational and professional orientation, either at regulated, or nonregulated activity. The authors define the regulation of activity as the presence of an algorithm that implies strict

following of a given sequence of educational and professional actions (operations) with minimal tolerance for individual manifestation of fantasy, imagination and creativity.

Table-1. Distribution of typological characteristics in students with different educational and professional orientation (n=499)

Characteristics		Students with nonregulated orientation of activity	Students with regulated orientation of activity
Dominating personality type		Artistic	Social
Activity		Mean activity threshold	
Orientation		On oneself	
Motivation	Motive for studying in the university	Obtaining knowledge	Mastering a profession
	Structural levels of motivation and needs	3 rd level of needs (need in communication)	
Axiological orientations	Ultimate values	Achievements	
	Life aspects	Hobbies	Social life
Self-regulation		Average level	

The level of neural dynamics (specifics of neural processes) was evaluated by the results of simple visual-motor reaction (SVMR) and the level of performance efficiency. The authors revealed that the majority of students had an optimal level of performance efficiency (i.e. normal or insignificantly decreased level), which represented an optimal adaptation process. The proportion of students that presented decreased performance efficiency was lower by 11.06% in the group of students of the nonregulated orientation compared to the group of students of the regulated orientation. This suggests that the former group had well-preserved functional capacities of the body that allowed a person to resist the state of fatigue for longer periods of time.

Psychophysiological level was evaluated with the characteristics of the brain energy metabolism by registering the level of SSP. SSP evaluation additionally allows to assess the effectiveness of adaptive mechanisms, including those concerning the educational conditions. The results showed significant differences in SSP characteristics among the students with different educational and professional orientation. The specifics of the educational activity, which is determined by the educational profile, affect the characteristics of brain energy metabolism. The group of students of the nonregulated orientation had 24% more students with significantly increased SSP, compared to the students of the regulated orientation.

4. Discussion

The conducted study confirmed the legitimacy of using the integrative approach as a methodological principle that allowed effectively evaluating the individual typological personality traits. It also validated the rationale of dividing the student population according to the level of regulation of their educational and professional activity (Postareff, 2007). According to the results, it is possible to state that people with the orientation on the nonregulated activity require special attention, and therefore, they need tutor support during the professional education. Along with that, higher educational institutions receive an increasing number of students, whose educational and professional demands require special approach to creating the educational trajectory (Margolis, 2018). Such students also need individual and group tutor support for being productive in their education.

The idea of open educational space implies the need to provide a student with multiple choices of educational trajectories within the selected educational profile. The tutor model of student support focuses on social practice and educational reflection (Organizing tutor support of the educational activity of university students educational and methodological system, (n. d.)).

The following sequence of actions might serve as an example of the integrative approach application in the tutor support. Analysis of students' individual typological personality traits is considered in practical activities during the courses of the psychological-pedagogical cycle (Entwistle *et al.*, 2003). The block of those courses is necessary for the students in order to define their individual reason and meaning of the educational process. The tutor needs to help the students to make a choice about their educational trajectory and teach them the ability to predict the result of their activity. The students have to be aware of the relevance of the selected route and be able to change it, or choose another vector in accordance with the corrected values and with the consideration of all possible options (Burlutskaja *et al.*, 2001).

It is necessary to consider students' interests during the development of the tasks of the psychological-pedagogical courses. The pedagogical process development should be based on the modern pedagogical technologies, such as technologies of open educational environment, that facilitate the development of person's innovative thinking (Shishov, 2004).

During the lessons, it is necessary to perform practice-oriented activity that integrates fundamental knowledge with professionally-oriented technologies, therefore allowing to make the studied courses closer to the prospective professional activity. Development of professional competencies occurs during the direct engagement in various forms of practical activity, which allow shaping personal and professional abilities and skills, such as the ability to think independently, analyze the problems and develop various mechanisms of their solution, abilities to work in a team and discuss, etc.

Another form of tutor support is the use of active educational methods. These methods imply immersing the students in controlled communication, engaging them in solving real professional problems, and creating an educational environment where it is possible to comprehend the problem. An example of such method is the brainstorm method, case-method, project, "chain" method, cinquain, etc.

Using different forms of game interaction during the lessons helps mastering professional activity styles and rehearse the mechanisms of solving problematic situations that occur in professional activity. During the game, the students acquire social experience of interacting with all participants of the educational process and practice creative problem-solving. The effectiveness of using game pedagogical technology is achieved by immersing the students in the game situation, while repeating certain elements of the game allows not only practicing specific abilities but also correcting the developing professional competencies. Within the pedagogical games, the students themselves can modulate the game process, which allows practicing and consolidating the developed professional abilities and skills by actualizing them in familiar situations and changing conditions.

Hence, including the active educational methods in the educational process allows developing the problem-solving experience in various nonstandard situations by developing a situation of "live experience", as well as the ability to design and predict professional types of activity. The opportunity of constructing an individual educational trajectory allows a student to fulfill the choice by demonstrating the possibilities to vary the modern education.

5. Conclusions

Therefore, the results of the study confirm the legitimacy of differentiating the experimental sample into types according to the specifics of their educational and professional orientation. The typological traits of two thirds of the sample correspond to the educational profiles. In both groups of participants, the revealed typological traits can be considered as profession-defining characteristics.

The models of pedagogical tutor support of students might differ depending on their educational and professional orientation. Introducing the personalization principle in the educational process implies creating variable educational process and developing professional competency as an integral personality trait. Personalizing the educational process should be considered primarily in the context of consultative and diagnostic support, as a tool for development that preserves and maintains students' subjective perspective and decreases the frustration related to the activity in the conditions of multiple choices and high level of uncertainty.

The work was funded by M.E. Evseyev Mordovian State Pedagogical Institute within the agreement #1/315 from 04.06.2018 on the conductance of research works on the topic of "Developing Models of Tutor Support of Pedagogics Students".

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