Adaptive model of psychological and pedagogical accompany of student professional training

El modelo adaptativo de apoyo psicológico y pedagógico de la formación profesional de los estudiantes

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ABSTRACT:
The paper purpose is to develop psychological and pedagogical accompany for university students, which contributes to the improvement of professional training results. In view of students’ highly differentiated personal qualities and abilities, the authors determined the need to develop and implement psychological and pedagogical conditions for students’ professional, general professional and general cultural competencies formation. The authors developed an adaptive model of psychological and pedagogical accompany for students professional training, including the mechanism of professional and personal development. The psychological and pedagogical conditions developed by the authors contribute to the improvement of future competitive specialists' professional training and fulfill the educational prognostic functions. The paper is intended for teachers, educators, psychologists, researchers engaged in research of vocational education's and development's psychological and pedagogical foundations.

RESUMEN:
El objetivo del artículo es desarrollar el apoyo psicológico y pedagógico para los estudiantes universitarios, lo cual contribuye al mejoramiento de los resultados de la formación profesional. Los autores han desarrollado un modelo adaptativo que incluye el mecanismo de desarrollo profesional y personal. Las condiciones psicológicas y pedagógicas desarrolladas por los autores contribuyen al mejoramiento de la formación profesional de futuros especialistas competitivos, además de cumplir las funciones de pronóstico de la educación. El artículo está destinado a docentes, pedagogos psicólogos, investigadores de los fundamentos psicológicos y pedagógicos de la educación y desarrollo profesional.

Palabras clave: formación profesional, estudiantes universitarios, actividad profesional educativa, competencias, apoyo psicológico y pedagógico, modelo adaptativo, condiciones psicológicas y pedagógicas
1. Introduction

At the present stage of society development, a need arises for a specialist of a radically new type and this generates high requirements for the results of studies at the university and the subsequent adaptation of the graduate to the labor market. Many authors emphasize the need for the development of education aimed at the formation of a social and creative personality, responsible for the results and consequences of decisions taken and implemented, showing socially responsible behavior, and interest in professional growth (Zimnyaya, 2006; Zmeev, 2009; Stukalova, & Alekseeva, 2017; Olesina & Stukalova, 2016; Bolshanina, 2016). Significant changes in state policy in the sphere of higher education, the correlation of educational and professional standards, and the creation of scientific and production clusters determine the social order of the state for a specialist capable of adequate responding to occurring changes and creative approaching the tasks that the situation poses for him. The information society is very mobile and, in addition, the decisive role in it is played not by a material resource, but by a person. In these conditions, there is an increased need for people who are able to take responsibility for the results of their activities and the responsibility of the education system for the competitive specialists training (Karnaukh, 2014; Levina et all., 2017).

In this area, fundamental research has been carried out in the field of pedagogy and psychology, in particular, the formation processes are considered:
- students’ knowledge of the subject area and interdisciplinary relations;
- skills (Borytko, 2011; Krylov, 2015);
- skills and experience of professional activity in the framework of vocational training in the university (Mironenko, 2014; Makhotin, Kalney & Grechnikova, 2012);
- competences of the future specialist (professional general professional, cultural) (Widdett, 2008; Zimnjaa, 2014).

The direction of the competence approach to the result is significantly related to the need for the student to adapt to the training, and then for the graduate of the university - to professional activities. Important one is not the acquisition of a set of professionally-oriented information, but the willingness and ability to use it. This strengthens the practical orientation of education, its subject-professional aspect, emphasizes the role of experience and practical skills to use and implement the knowledge to solve the problem tasks. The change of norms, rules, values, high uncertainty about the future engenders the student's feelings about career strategies and building one’s own life, its self-governance.

Thus, readiness for professional activities is becoming a priority personal quality. While readiness is considered as the integrator characterizing the active-effective subjective state of the individual, mobilizing forces to accomplish their professional tasks and personal qualities to accomplish it.

Appeal to the personal qualities of the student, their moderation in the process of professional training in universities causes the necessity of organizing psychological and pedagogical accompany of the educational process as a system of the teacher professional activity, aimed at creating an educational environment for the successful formation of students professional, generally professional and generally cultural competence. Psychological and pedagogical accompany of students is a promising direction of their activities, focused on maximum support of personal and professional development.

2. Methodological Framework
Psychological and pedagogical accompany of students professional training at the University involves the creation of conditions that reduce the influence of internal and external risk factors, consolidates the psychological resources of the individual, and contributes to the readiness status's emergence and maintenance of the student's professional and personal development. Implementation of psychological accompany ensures the creation of the educational environment and reducing the level of resistance to the forthcoming new academic activity of the student.

Experience of creation of the accompany system shows that this goal can be realized only when achieved coupling of initial and final performance objectives in relation to the student individual. The initial goal of the interaction is the definition and formation of students' readiness to study at the University through intellectual, emotional, motivational, behavioral impacts, identifying their individual characteristics as the basis for the development of competencies all types at the initial stage of training in university. The ultimate goal of interaction is the formation of a student's psychological, professional, creative readiness for future professional activity, professional self-development and self-government.

Psychological and pedagogical accompany is aimed at developing the students all kinds of skills:

- **general professional competence** on the type of education (technical, humanitarian, etc.), including the ability to analyze and synthesize information, to manage professional activity, professional communication and etc.

- **professional competencies** that determine the ability of the student to solve professional problems, to perform routine production tasks

- **general -cultural competence** that form the culture of a specialist: values, attitudes, norms, patriotism and civic consciousness and etc. This includes the experience of student mastering of scientific world picture, extending to cultural and human understanding of the world.

*The main tasks of psychological and pedagogical support* of all types of competencies' formation process are:

- adaptation of students to educational and professional activities, ensuring the formation and development of professional skills through appropriate interaction of the student with the educational environment; the formation of new personal qualities, professional identity and so on; involves the formation of a new social status, the development of new social roles, acquisition of new values, understanding the significance of professional activities traditions;

- assisting students in educational and professional activities offers support and correction in building the professional sense system of the student; involves the organization of a tripartite communications: "teacher – student – educational space";

- pedagogical management is the implementation of curricula and working programs of disciplines and fulfillment of discipline tasks; it is based on typical management cycle of "plan-act-check-adjust" with the involvement of the teacher in the process of overcoming the difficulties of students in educational-professional activities;

- individualization of learning, built on the diagnosis of students’ personal qualities, their differentiation and the formation of a typology for the use of adequate pedagogical techniques, methods for the formation of competencies all types.

The tasks can be solved by using the following approaches to the organization and implementation of psychological and pedagogical accompany:

1) **Competence-based approach** – a set of General principles defining the objectives of education, selection of educational content, organization of educational process and evaluation of educational results, providing a value-productive orientation of professional training (Verbitsky, 2011; Tryapitsina, 2015; Khutorskoy, 2013). From the standpoint of the competence-based approach the changes are required in the structure of pedagogical and educational-professional activity, because: at the same stage of education in the development
of the same content, students can reach different levels of the material’s assimilation, and any of these levels is of practical importance.

2) *The activity-based approach* defines the priority of the activities in the formation of the student personal and professional qualities. It is based on the fundamental position that the human psyche is inextricably linked to its activities and is caused by them. The activity is understood as an intentional human activity, manifested in the process of its interaction with the surrounding world, and this interaction is the solution of the vital tasks that define the existence and development of man. The person acts as an active creativity: interacting with the world, one learns to build itself (Leontiev, 2012; Rubinstein, 2011, etc.). It is through activities, including, and training, and in the process of activity the person becomes himself, his self-development and his personality self-actualization takes place. Thus, the ultimate goal of teaching is formation of action mode, and knowledge should become a means of activity training.

3) *The personality approach* determines the priority of the student individual as self-aware responsible subject of his own learning and development. In this regard, the personality approach is the basic value orientation of a teacher, determining its position in cooperation with each student and student team (Kolesnikova, 2012; Serikov, 2013; Slastenin, 2015; Yakimanskaya, 2010). Its implementation leads to student assistance in comprehension of himself as a person, in identifying, disclosing its capacity, the development of consciousness, in the realization of personally significant goals in professional, general-professional and common cultural competences’ formation.

The described methodological approaches logically lead to the following principles of psychological and pedagogical accompany:

- The principle of integrity and development requires consideration of mental phenomena in constant change, movement, continual resolution of contradictions under the influence of internal and external determinants (Ananiev, 2010). It means the achievement of the unity and interconnection between all components of the educational process;

- The principle of hierarchy allows us to consider all mental phenomena as steps, included in the hierarchical ladder in which the lower "floors" are driven by higher ones and the higher ones include the lower, modified, but not eliminated kind and relying on them as races based on the emergence of new system qualities (Kossov, 2010). This principle requires that the contents of training permanently to be fixed in the minds of students and become the basis of their behavior. This result is achieved only if the learner exhibits cognitive activity, if systematic repetition of material is organized, and also systematic monitoring of learning outcomes, their measurement is provided;

- The principle of nature-based law, which means that: the educational process must be built in accordance with the age and individual peculiarities of students; one need to know the zone of proximal development, which determine the possibility of students also rely on them while organizing the educational and professional activities; it is necessary to direct training and professional activities on the development of self-fostering, self-education of University students;

- The principle of overcoming the psychological barriers to learning with elements of novelty (Shakurov, 2003). Creating barriers causes the appearance of mental activity, aimed at overcoming them. If the student performing the activities with elements of novelty, is facing the positive functions of the barriers, it contributes to the problem situation and search for solutions and, thus, the continuation of activities, and hence successful self-realization, then negative function of the barriers stop and destroy this activity, lead to the search of substitute actions and hinder the student successful self-realization.

- The principle of interaction, which is based on the professional role of the teacher (Levitan, 1994). The main, leading role belongs to the teacher, one of the important professional tasks of which is to stimulate students' cognitive activity. Therefore, the teacher acts as subject of
learning, and trainees — as its object. He provides selection of contents, methods and forms of pedagogical influence aimed at training specialists in the chosen specialty;
- The principle of differentiation - differentiated learning ability of University students. This principle includes the accounting of students' individual abilities in the learning process in all its forms and methods irrespective of what features and to what extent they are taken into account.

These principles have defined the logic of psychological and pedagogical accompany substantiation for the development of universities future specialists, allowing determining the subject of professional, general professional and General cultural competencies formation.

3. Results

Psychological-pedagogical support at the stage of students’ professional training at the University plays an important role in personal and professional development of students and constructing learning paths.

Development and implementation of psychological and pedagogical accompany, as a special form of pedagogical practice implies the development of its universal structure. And here a good solution is pedagogical modeling, the result of which is a model reproducing some essential original system properties in this respect of a substitution and similarities that the study of it is an indirect way of gaining knowledge about the original (Borytko, 2011 et all).

Adaptive model of psychological and pedagogical accompany of students’ professional training enables to define criteria that characterize the quality of a future specialist development as a subject of activity. Adaptability involves a wide range of personal qualities that are combined in specific conditions of personality development in the domestic environment. The developed model is a theoretical construction, reflecting the significant features of the investigated object and establishes communication between the components of psychological and pedagogical accompany process (Fig.1).

**Figure 1**

Adaptive model of psychological and pedagogical accompany of students’ professional training
Adaptive model of psychological and pedagogical accompany of students' professional training in university includes the following units:

1) A *Regulatory unit*, formed on the basis of: law requirements on the education; Educational standards for the field of study (determining the planning of the educational-professional activity and its goal-setting, specificity of the subject area and the educational environment); social state order (requirements of the region, the demand of employers, etc.).

2) The *Target unit*, comprising:
   - The purpose of psychological and pedagogical accompany is the achievement of qualitatively new results in the students’ professional training by reference to the personality sphere of students;
   - Tasks of psychological and pedagogical accompany: adaptation, facilitation, educational management, individualization of education;
   - Functions of accompany: developing, causing the development of student professional-personal qualities in all areas (speech, thinking, emotional and volitional sphere, self-government, etc.); informational that provides the student with quality information for

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<tr>
<th>REGULATORY UNIT</th>
<th>Law requirements on the education</th>
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<td>THE TARGET UNIT</td>
<td>The purpose of psychological and pedagogical accompany</td>
<td>Tasks of psychological and pedagogical accompany</td>
<td>Functions of accompany</td>
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<td>THE METHODOLOGICAL UNIT</td>
<td>The approaches (competence-based activity-based, personality)</td>
<td>The principles (development, interaction (communicative), integrity, hierarchy)</td>
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<td>THE ORGANIZATIONAL UNIT</td>
<td>educational environment</td>
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<tr>
<td>PROCEDURAL UNIT</td>
<td>academic skills → generic skills → self-educational skills → experiences → implementing of professional → general educational and general cultural competences in educational → professional activities</td>
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<td>THE UNIT OF ADAPTATION</td>
<td>mechanism of &quot;professional and personal development&quot;</td>
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<td>RESULTING UNIT</td>
<td>improving the quality of education</td>
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3) The Methodological unit comprises approaches (competence-based activity-based, personality) and principles (development, interaction (communicative), integrity, hierarchy.).

4) the Organizational unit that contributes to the formation of the educational environment as a psychological and pedagogical reality, a combination of the already existing traditions of the University and deliberately created pedagogical conditions aimed at forming and development of a student personality in training.

It includes:
- The levels of psychological-pedagogical accompany (individual accompany, group and intergroup interaction);
- forms of psychological and pedagogical accompany: student professional development diagnosis; the analysis of students’ educational-professional activity results; consulting with clarification of information on the possibilities of students’ personal and professional development; pedagogical correction;
- Direction of psychological and pedagogical accompany: the identification of gifted students’ groups, groups of "norm", risk groups. Carried out diagnostics allows to build a typology on the basis of the obtained results, to determine the ways of students’ abilities development and preparedness, their self-government.

5) Procedural unit implements the process of students’ professional, general educational and general cultural competences formation based on the technology of the gradual development of: academic skills, generic skills, self-educational skills, experiences, implementing of professional, general educational and general cultural competences in educational and professional activities.

6) the Unit of adaptation, which includes the mechanism of "professional and personal development"- the identification of variables (personal characteristics and professional knowledge) and the inclusion of students’ adaptation to the peculiarities of the development of professional, general professional and General cultural competences by students (Khusainova & Levina, 2016; Khusainova et all, 2016). With proper organization of the transforming activities of students (at each successive stage) requirements activities involve a more multifaceted, active, somewhat changed the need of the individual. In this discrepancy lies the source of internal contradictions (Khusainova, 2013). However, in the process of the activity objectives successful implementation, this contradiction is resolved. This mechanism is to implement the leading needs from simple forms to more complex ones– from unilateral or weakly expressed interest in training and professional activities to more profound, complex needs.

Students’ psychological-pedagogical accompany is related to the process of entering the training and professional activities, its direction varies according to the principle of differentiation: either accepting the educational environment, or its rejection, requiring adaptation to it. The adoption by students of the educational environment determines their readiness for the assignment of professional skills. Students "at risk" need psychological accompany in order to achieve their optimal personal status, conducive to the formation of the necessary competencies.

Diagnostic study of students’ personal characteristics, educational-professional activities and learning outcomes within the psychological-pedagogical accompany allow you to get either a positive result, which shows the accepting by students of the educational environment, or a negative result that is associated with the inclusion of the adaptation mechanism to overcome anxiety as a barrier to the appropriation of knowledge, skills, communication, experience, educational and professional activities. Adaptation of the student to the synthesis of knowledge is the basis for the development of a new paradigm of education, which includes the adaptability of educational technologies and has a universal character focus on optimization of
7) Resulting unit is associated with improvement of vocational training quality by students’ adapting to the process of professional, general professional and common cultural competences’ formation.

Implementation of this model requires the authors' developed organizational and pedagogical conditions introduction:

1) Special training of teachers to implement psychological-pedagogical accompany: improvement of teachers’ professional competence in educational contexts (professional development in the field of psychology, personal development, pedagogical culture, professional skills);

2) Development and implementation of differentiated learning technologies for solving problems of students’ personal and professional development;

3) Ensuring of teachers’ interaction with students in matters of professional and personal development. This means: individual approach to students, formation of students' attitudes to positive perception of informational diversity with the purpose of professional, educational and common cultural competences’ formation;

4) Monitoring results of students’ educational activities to provide a possible correction of learning outcomes including:
   - Analysis of pedagogical innovations and their impact;
   - the study of educational programs development impact for students and their correlation with peculiarities of professional, general - professional and common cultural competences’ formation;
   - tracking the dynamics of professional, general-professional and common cultural competences’ formation of university students;
   - Additional monitoring of risk groups to further their adaptability to the educational environment;

5) Providing orientation of the educational process on the students’ self-government system formation of their own teaching and professional activities, as a significant component of individual development. This condition contributes to the students’ personal growth, development of their social responsibility with respect to the learning outcomes and autonomy of professional, general-professional and cultural competences’ development.

Developed by the authors psycho-pedagogical accompany of professional training for and conditions their implementation were pilot tested among the students of socially-humanitarian specialties (a total of 106 people). In addition to improving the results of educational activities a significant change in the degree of satisfaction of students by the educational process, increase their motivation to learn was revealed.

4. Discussions

Thus, we understand the challenge, which is determined by studying the role of psychological and pedagogical accompany shows that at the level of public understanding the accompany of a man are his social interaction with other people, functions, effects of which is development of man in life, in a variety of personal and social situations. This accompany can be of different nature, which in each case carries a professional and personal nature. This conclusion is confirmed by the fact that in practice and scientific literature we come across the concept of "medical accompany", "psychological accompany", "scientific accompany", "social-pedagogical accompany", etc. At the level of the selected approaches one of these types of accompany becomes psychological and pedagogical accompany, which, on the one hand, possesses the traits of personal interaction, but, on the other hand, has its own specifics. It lies in the
psychological-pedagogical nature of accompany aimed at focused development of a student personality through professional, general- professional and common cultural competences’ formation.

We conducted a survey using the methods of activity-based situation and semantic differential to identify and justify features of psychological accompany in order to form self-government of University students to develop their professional, general-educational and general-cultural competences.

The formation of the criteria system of students’ self-government largely determines their success in various fields, as it allows them to show independence as a subject of any activity (Khusainova et all., 2016). The more complex, creative activity is, the greater the role of self-government in the process of socio-psychological adaptation throughout life’s path, which contributes to the harmonization of personality, its adequate inclusion in the society, educational and professional development.

For university students in the learning process in the long run an adaptive model of psychological and pedagogical accompany is needed, which ensures their development in making and implementing decisions to achieve the goals and can contribute to the solution of the problem of person’s social activity formation and development, formation of the future professional.

5. Conclusion

The problem of specialists training in the educational space most acutely raises the question about mechanisms to overcome the negative effects that inevitably arise in the process of the society socio-economic reforms in a constantly changing environment. Hence, psychological-pedagogical accompany should be given no less attention than the content (program). The university students’ pedagogical accompany in training is multidimensional and polymorphic interaction, the main function of which is to stimulate the individual set of personality important needs of the subject of educational activity, which is responsible for its self-realization.

Presented theoretical material, adaptive model and the revealed conditions of psychological accompany determine psychological and pedagogical foundations in the development of individual educational technologies to improve the quality of educational-professional activity results - professional, general professional and common cultural competences’ formation. The development of students will be successful if it is organized purposefully, accompanied by teachers within the training and professional and extracurricular activities; University students possess internal confidence and a liability to the learning outcomes, leading to their readiness for successful professional development.

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