

Improvement of professional and pedagogical activity of students on the basis of an adaptive approach

Nigora Mukhamedova^{1*}, *Gulchehra Djalilova*¹, *Bakhrudin Eshdavlatov*¹, *Dilfuza Mirdadaeva*¹, *Gulnoza Iskandarova*², *Khayrullo Tuychiev*³

¹Tashkent Pediatric Medical Institute, Tashkent, Uzbekistan

²Center for Professional Development of Medical Personnel, Tashkent, Uzbekistan

³National Research University TIAME, Tashkent, Uzbekistan

Abstract. The article focuses on the adaptive mechanism of pedagogical adaptation of students to higher education, as well as the identification and development of adaptive abilities of students. The development of an indepth scientific analysis of the conditions of adaptation of students to the educational process and their preparation for further activities on a systematic basis in this regard requires justification of its improvement from a scientific point of view.

1 Introduction

Globally, the training of intelligent, talented and creative people in the education system of each country, as well as their preparation for the development of society, is of paramount importance as a priority task. According to UNESCO, "education", which forms the necessary knowledge, skills and abilities for life, ensures the goals of achieving sustainable development, remains a higher education institution and the need for higher education in the most developed countries of the world is growing rapidly today.

It is noted that in the most developed countries, this figure is 8%, if 8% of young people from countries that have not developed according to statistics receive at universities.

Access to higher education is considered an important need on a global scale, at the same time, the pedagogical adaptation of students in higher education to the educational process, the development of intellectual abilities and thinking of students, the further development of adaptive adaptation maxima is one of the most pressing problems.

In the process of professional training of students of higher educational institutions, analyzing the conducted research on the formation of skills of adaptation to the educational environment, we witness that its scientific and theoretical basis has not been developed and is not fully applied in practice.

Therefore, in the process of professional training, it is necessary to develop innovative approaches, forms, methods and tools for the formation of technical university students' skills to adapt to the educational environment and apply them in practice.

* Corresponding author: gulchehratashpmi@mail.ru

to the problem of adaptation of students to study at a higher educational institution have studied in detail about various approaches L.N.Baronina, T.P.Brown, G.V.Bezyuleva, S.V.Vasilyeva, S.M.Vishnyakova so.Dorokhova, V.A.Kruchinin, E.O.Leontieva, E.I.Muratova, E.A.Osipov, E.V.Osipchukova, A.V.Paniksina, S.A.Runova, R.R.Khusainova, T.E.Chikina, L.A.Yasyukova, O.E.Khaitov, D.I.Mukumova and others.

The main difficulty of the adaptation process is that it involves an integral personality in all its processes, and the process of social adaptation has the following characteristics:

it is a social organizational and pedagogical process aimed at mastering a variety of cognitive, psycho-emotional and social experiences in accordance with individual capabilities, needs of students;

the process of acquiring skills, norms, values and specific pedagogical skills of students, skills and abilities of providing access to social relations and their systems of professional activity;

the process of mastering new conditions of activity and communication, integration into the environment of a higher educational institution, acceptance of its values, norms of behavior, formation of communication skills and professional skills.

2 Methods

The process of developing creative and communicative abilities in the professional and pedagogical adaptation of students is a somewhat complex process, the importance of modern teaching methods in it is difficult to overestimate. Considering that the adaptation of a student to the conditions of a higher educational institution covers all spheres of his life, we come to a comparative analysis of traditional education and adaptive educational environment (Table 1).

Table 1. Comparative analysis of traditional education and adaptive learning environment

environment	Traditional educational environment	Adaptiv educational environment
Goal and result	ready data	author's product
Problem solving form	Mutual perspective struggle	A combination of suggestions and feedback
Motivation of activity	Encouragement and punishment (fear of being punished)	Pedagogical support (has a social character)
Activities of participants in the educational process	Accepted norms and rules	Choice of educational environment (adaptation to changing conditions)
Performance evaluation criteria	Number of errors (comparison with accepted rules)	Dressing new ideas and ideas as a result of communication with others

Generalized criteria of pedagogical adaptation of students to higher education are the formation of motivation for professional activity among future engineers; a positive attitude to the chosen vocational educational institution is an important factor in the development of pedagogical skills, as well as increasing the desire for a future profession, the development of pedagogical skills.

In order for higher education in the system of continuing education to become a stage of professional maturity, a student must be prepared for the formation of intellectual potential, stimulating the processes of self-development and self-education, active formation of

knowledge and professional motivation, as well as for such an innovative educational process.

An important condition for increasing the level of adaptation to the process of higher education is the freedom to choose an educational training for students, its implementation includes the separation of:

- characteristic qualities that contribute to the main features of the student's personal freedom, as well as personal freedom;
- selection levels for students of educational training, determined by an alternative category.

The increase in the level of adaptation of students to educational activities is also due to the following psychological and pedagogical conditions:

- 1) increase the level of empathy, for example, the ability to feel the world of another person;
- 2) stimulating the ability to self-development;
- 3) development of communication skills.

Currently, there is no single methodological approach to the definition of pedagogical and psychological analysis of adaptation.

An analysis of the literature has shown that two approaches can be distinguished in differentiating the adaptive value of individual human characteristics:

1. The first approach ignores the specific role of individual characteristics in adaptation. According to this approach, the adaptive function is performed only by individual characteristics, and according to this approach, flexibility is declared as a property of personality, a socio-psychological property of personality.
2. The second approach, on the contrary, denies the adaptive importance of individual characteristics and plays a certain role in individual, educational and psychodynamic characteristics of a person [49, 227-248].

Let's try to analyze the adaptation process of students, because this process depends on how exactly the training took place at the first stage, as well as on the degree of adaptation of students.

The initial period of study, first of all, is the "adaptation" of the former system of students' relations with teachers and with each other, and secondly, their knowledge, skills, attitude to reading, having ideas about their new role, self-assessment of the correctness of the decision, the features of the chosen profession, the educational process and its requirements, attitude to it. On this basis, new aspirations and plans arise, there is a struggle of motivations.

In the process of adaptation of students, the following difficult points are usually emphasized: negative experiences associated with leaving the school community, mutual assistance and moral support, uncertainty of motivation for choosing a profession, insufficient pedagogical and psychological training; inability to exercise self-control in behavior and activity, lack of self-control habits.; finally, the lack of independent work skills is manifested in difficulties when working with primary sources, dictionaries, catalogs, reference books.

In addition, adaptation is a method of assimilation of social experience to students and active multiplication of the system of social relations, both through adaptation and in the process of socialization, the most valuable signs and characteristics of a student develop, which allows him to live, work, study and relax in a new environment.

The motivational and personal aspect of adaptation is associated with the formation of positive educational motives and personal characteristics of the future specialist, the purposeful formation of future professional activity.

From the first days, the student and the teacher face a number of tasks that require maximum mobilization; intellectual and physical strength, the formation of socio-psychological and personal structures.

The physical component includes:

- spontaneity of behavior,

- spontaneity of attention.

The intelligent component includes:

- -cognitive and cognitive interest,
- actions in accordance with the rule,
- examples of actions,
- the ability to listen carefully and clearly follow the instructions of teachers,
- independent actions to complete tasks.

The formation of individual structures includes:

- the superiority of the motivation "should" over want",
- internal motivation of education,
- increased sense of responsibility,
- stable positive self-esteem.

Socio-psychological skills include:

- ability to communicate with peers and mentors,
- sufficient level of self-control.

The study of the dynamics of students' adaptation to learning conditions has shown that pedagogical adaptation is effective in the following conditions:

- know and take into account the age and individual characteristics of students;
- developing a love of the profession;
- formation of educational and communication skills;
- formation of groups of the most successful students.

The creation of an adaptive environment in educational institutions during the adaptation of students is of great importance. In short, it is necessary to choose strategies and methods of training in such a way that they help each member of the group to make optimal use of their activities. It combines the content of education, the educational process, forms, methods and technologies of education and upbringing [5, 133-148].

3 Results and discussion

In the theory and practice of pedagogy, there are currently various concepts, theories, approaches to learning based on certain educational goals, certain features of the transfer or assimilation of knowledge, the development of the student's personality, etc.

When adapting to an educational institution, which are a necessary condition and tool for creating an adaptive learning environment in the process of adaptation, the following are best suited for the goals set:

problem-based learning; gaming activities; study of group self-management; collective learning method; differentiation of levels; project training; modular training.

Below we have formulated the scope of activity in an adaptive learning environment and the necessary criteria for it, that is, what will be the characteristics of a student after learning in an adaptive environment.

Table 2. Features of student's forgiveness after the education of the adaptive environment

Field of activity	Criteria
Communicative	He is friendly and tolerant, has a sense of self-worth, takes care of others.
Cognition-activity	He is interested in knowledge, knows the personal and social significance of knowledge, strives to get them in his chosen profession, and is responsible for work.

intellectual	He knows how to apply knowledge in life, owns new information technologies, knows how to act in the information sphere, creatively approaches business, develops self-improvement, makes independent responsible decisions
Socio-cultural	He knows universal values, knows the norms of moral and cultural behavior, applies aesthetics to life.

In the case of an adaptive educational environment, it is necessary to focus on the lessons, since various pedagogical games in the classroom are the most effective, they are natural that knowledge is consolidated in the pedagogical activity of future students. You should also pay attention to group, collective technologies that allow students to develop a collective solution to problems, the desire to communicate and discuss the results of their activities.

In an adaptive educational environment, there are 5 components of the educational process, each of which has its own specific adaptations.

The first part is adaptive learning. The main tools for the student's adaptation to the requirements of educational programs, that is, full mastery of knowledge and skills, are technologies.

The second part is individual adaptation groups. To achieve the goals, the method of individual training (additional circles) is used, which ensures the fulfillment, modification and development of the student's mental activity [6, 58-62].

Part three - social and emotional-motor development. This part is based on content that will help to increase the sensitivity and reflexive abilities of students.

The fourth part is a series of lessons on social and moral adaptation, for which individual reflexive educational technologies and techniques have been developed.

The fifth part is a circle and an activity that includes educational and cultural activities. These lessons are based on a special program that is designed for all forms of the educational process, including specially designed days.

The following conditions are reflected in the educational adaptive environment, they are:

- the presence of all didactic tools in the classrooms (creating an unobstructed environment);
- technical means to ensure convenient use (auxiliary tools and technologies);
- create an atmosphere of adaptation to the social environment without obstacles.

When developing an adaptive learning environment, the following basic principles should be followed

1. Security. This implies a certain subject and spatial organization of the environment, which minimizes the feeling of insecurity and fear among first-year students.
2. Saturation with objects of cultural significance. The educational environment provides the student with constant communication with various media (provides information about the surrounding world).
3. Enrich the system of public relations. This ensures the community of activities in the student group for the organization of the educational environment, encouraging its active cooperation and cooperation with other people.
4. Developing educational environment. Bunda implies the existence of a system of thought-provoking obstacles that students are able to overcome independently or with the help of others.
5. As a result of the development of didactic abilities and creative abilities in the field of self-study, students will focus on their own strength.

The adaptation process is available in various interrelated forms. Many researchers distinguish the following forms of adaptation of students to the educational process of a higher educational institution:

- 1) students and adaptive environment, that is, situations that meet the adaptive needs of students;
- 2) social adaptation, that is, the process of interconnection of groups of first-year students and the integration of these groups with the entire student environment;
- 3) creation of organizational and pedagogical conditions aimed at developing a flexible student personality for professional and pedagogical activities.

In order to continue education in technical higher education institutions, education, socio-psychological and professional adaptation are important and cover all the important problems that are being studied today.

Based on the results of a number of studies of the organizational and pedagogical adaptation of students of higher educational institutions, we have developed a model for improving conditions [7, 48-54].

The model of improving the system of pedagogical adaptation of students to a higher educational institution consists of organizational and graduation processes, as well as analytical and production processes, the main purpose of which is to improve the professional and pedagogical adaptation of students to a technical higher educational institution. The necessary components play a key role in this arena: motivational-cognitive, cognitive-activity, socio-psychological, communicative-organizational.

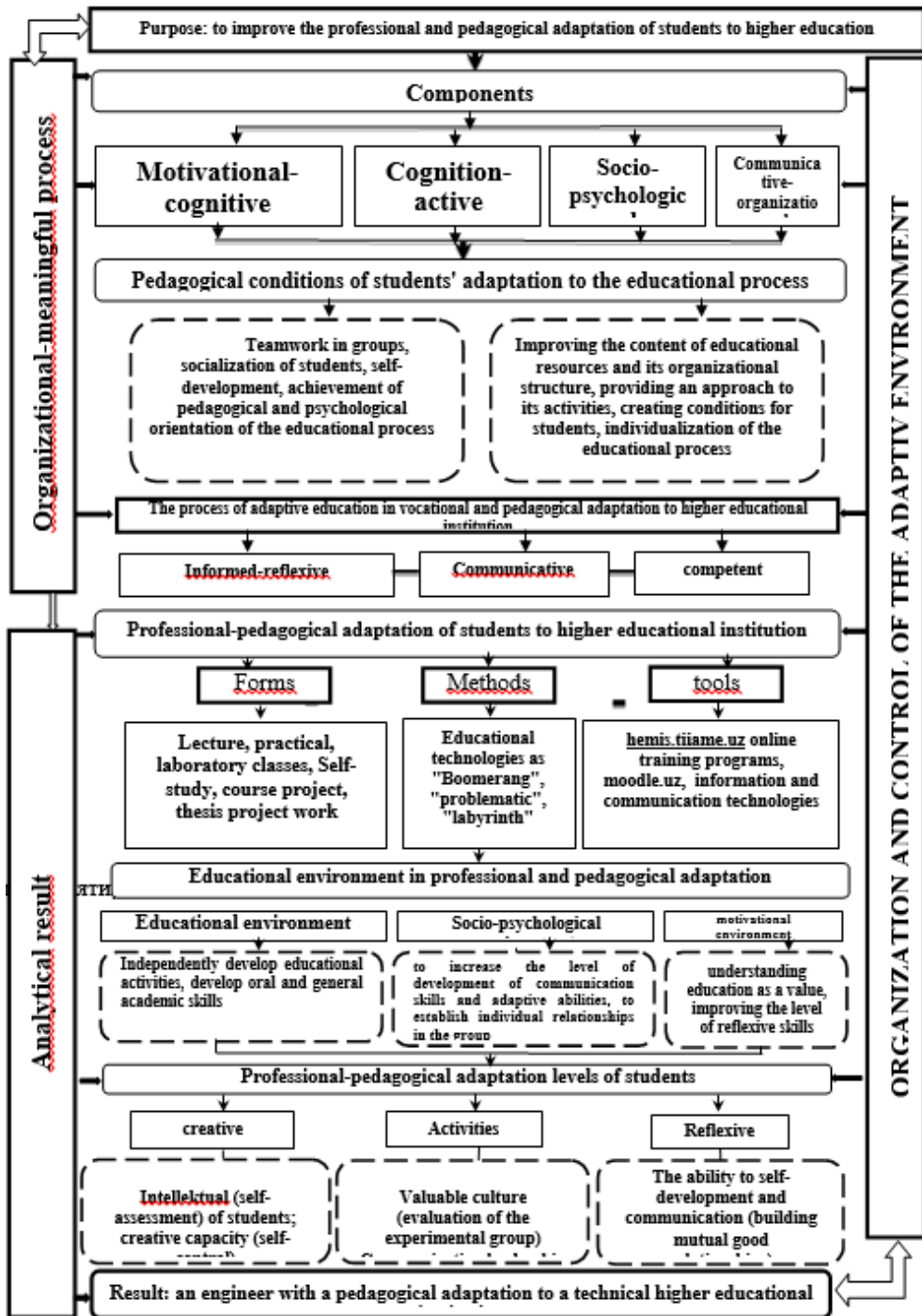


Fig. 1. A model for improving the professional and pedagogical adaptation of students to higher education

The development of a professionally-pedagogical adapted teacher in a higher educational institution as a result of the creative criterion in the professional-pedagogical adaptation of

students to the educational, socio-psychological and value environment - the intellectual and creative potential of students; the active criterion - value culture and communicative leadership qualities and the reflexive criterion - the ability to self-development and reversible communication were scientifically substantiated.

The main role in the professional and pedagogical adaptation of students is played by motivational-cognitive, socially active and organizational-evaluative components, takes into account the knowledge gained by students at the previous stage, and attaches great importance to personal traits, interests and motives for choosing a profession.

From the analysis of the research work on this topic, it is known that the factors that have a positive impact on the adaptation of a future engineer to higher education include the following:

- pedagogical and psychological originality: the content of higher education and new conditions for the organization of education;
- socio-psychological characteristics, that is, factors that negatively affect the assimilation of a new type of social relations (Lack of desire to take up a profession, lack of self-confidence or too little, etc.) [8, 33-48].

4 Conclusion

Theoretical studies conducted to improve the organizational and pedagogical conditions for adapting the requirements of the first stage to the educational process, as well as the results of experimental and test work, allow us to draw the following conclusions:

The concepts of "pedagogical adaptation" and "adaptability" have been studied in an expanded form. This is determined by the combination of motivational-cognitive, cognitive-active, socio-psychological and competence-organizational components of pedagogical adaptation of future engineers to the educational process of the higher education system.

Educational environments in pedagogical adaptation: educational correspondents (independently mastering educational activities, general and academic skills); socio-psychological (increasing the level of development of communicative skills and adaptive abilities, establishing individual relationships in a group) and value-motivational (understanding education as a value, motivation of educational activities, reflexive skills) were scientifically substantiated.

The features and essence of adaptation of students' requirements to the educational process, as well as organizational and pedagogical conditions of adaptation of students are determined. In the process of modernization of education, pedagogical conditions have been scientifically substantiated to optimize the effective adaptation of first-stage students to the educational process: activity content, form, style, technology.

References

1. Decree of the President of the Republic of Uzbekistan "On the Strategy of further development of the Republic of Uzbekistan", Collection of Legislation of the Republic of Uzbekistan, Tashkent, 39 (2017)
2. H. E. Tuichiev, Aspects of psychological and pedagogical adaptation of students to the educational process, European Journal of Life Safety and Stability ISSN 2660-9630, **8**, 123-126 (2020)
3. R. K. Choriev, M. F. Khakimova, O. O. Daminov, H. R. Gaffarov, K. E. Tuychiev, Mechanisms of professional competence development for future teachers, Solid State Technology, **63(2)**, 123-126 (2020)

4. Z. K. Ismailova, P. M. Makhsudov, H. Tuichiev, Problems of teacher training in professional educational institutions against the organizer, *European Journal of Research and Reflection in the Field of Educational Sciences*, ISSN 2056-5852, **8(12)**, 28-35 (2020)
5. Z. K. Ismailova, A. Tillaev, H. Tuichiev, Methods of improving the creative and acmeological skills of higher school teachers, 236-237 (2012)
6. A. Maslow, *Motivation and personality*, St. Petersburg, 61-62 (1996)
7. M. V. Romm, Adaptation of personality in society: Theoretical and methodological aspect, Novosibirsk: Nauka. Siberian Publishing Company of the Russian Academy of Sciences, 275 (2002)
8. A. G. Shmeleva, Analysis and correction of the causes of emotional and personal maladaptation of a student, *Basics of psychodiagnostics: Textbook*, Moscow, Rostov n/a: Phoenix, 370-383 (1996)
9. O. Glovatskii, J. Rashidov, B. Kholbutaev, K. Tuychiev, Achieving reliability and energy savings in operate of pumping stations. In *E3S Web of Conferences*, EDP Sciences, **264** (2021)
10. K. Zukhra, R. I. Odina, D. Jamoldinova, O. Khimmataliev, J. O. Khakimov, O. O. Daminov, Use of the Art of Management in Improving the Teaching Skills and Pedagogical Techniques of the Modern Teacher *Solid State Technology*, **63(2)**, 258-267 (2020)
11. Z. Ismailova, R. Choriev, G. Ibragimova, S. Abdurakhmanova, N. Abdiev, Competent model of Practice-oriented education of students of the construction profile. *Journal of Critical Reviews*, Innovare Academics Sciences Pvt. Ltd. (2020)
<https://doi.org/10.31838/jcr.07.04.85>
12. B. Khasanov, R. Choriev, N. Vatin, Fundamentals of property and compositions management concrete mix and concrete, *E3S Web of Conferences* (2021)
13. Sh. A. Mirsagatov, I. B. Sapaev, Photoelectric and Electrical Properties of a Reverse - Biased p-Si/n-CdS/n⁺-CdS Heterostructure, *Inorganic Materials*, **50(5)**, 437-442 (2014)