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A MODEL FOR DESIGNING INDIVIDUAL EDUCATIONAL TRAJECTORIES OF STUDENTS - FUTURE TEACHERS OF SCHOOL ORGANIZATIONS

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Abstract

One of the urgent problems of Uzbekistan higher pedagogical education is the need for its individualization as a way to increase students' motivation to master universal, general professional and specific professional competences. According to the author of the article, the solution of this complex problem is associated with the development of individual educational plans of an advanced nature and the design of individual educational trajectories (IET) on their basis, implementing the educational potential of students' independent work, the opportunities of cooperation pedagogy and taking into account the inclinations and interests of students in learning to cope with different types and tasks of pedagogical activity. The goal is to present the author's model of designing individual educational trajectories of students – future teachers of school organizations, providing for the use of distance educational technologies in organizing students' independent work. Based on the analysis of scientific and pedagogical literature, this model takes into account methodological approaches: competence-based, systemic, personality-oriented and qualimetric ones, which makes it possible to design and implement IET principles of professional orientation, motivation, self-organization and advanced training., The method of pedagogical qualimetry was chosen as the main research means – a group expert assessment, which allows us to algorithmize the assessment and measurement procedures. The method of modeling and design is also involved. A model for designing individual educational trajectories of students – future teachers of school organizations on the basis of individual curricula in cooperation with teachers is proposed. The design of this model is described in detail to create organizational and pedagogical conditions for the formation and development of universal, general professional and specific professional competences, taking into account the personal interests and needs of students, that differs from most others, which also help monitor the quality of the educational process. The research materials can be useful to the administration and academic staff of universities in organizing the educational process according to individual educational trajectories. IET design can be used with appropriate adaptation in the system of retraining and advanced training of teachers of school organizations.

Keywords: model, professional and pedagogical competence, educational process, individual educational trajectory, individual curriculum, quality monitoring, school teacher.

The modernization of the higher education system is a strategic line of the state policy of Uzbekistan in the field of individualization of education, due to the introduction of the federal educational standard, which requires the solution of a number of serious problems related to the choice of an individual path of a student in a university and in further professional activity. It is obvious that one of the urgent problems should include the creation of organizational and pedagogical conditions in the educational process on IET to increase motivation, self-government and self-development of students, as well as contributing to the formation of professional and pedagogical competence of a university graduate, on

which systemic quality improvement and empowerment largely depend continuous education through the individualization of learning.

E. V. Astakhova notes that “current universities are fundamentally different from those that existed in the middle of the 20th century. Absolutely everything has changed in them: goals, tasks, scales, forms of activity, main subjects. We are dealing with a modern university, and it is necessary to find ways to adapt to new challenges by determining the vectors of movement that allow us to walk the finest line between tradition and innovation” [1].

These positions are shared by A.P. Tryapitsyna, who emphasizes that as a result, a qualitatively new level of individualization of education is expected to be achieved, mechanisms for the implementation of individual educational trajectories in educational organizations of all forms of ownership and their networks, in the forms of distance education, self-education ; the emergence of a new type of institution - an integrated social institution that provides diversified services in the field of education [2].

In our opinion, in order to solve this problem, when designing individual educational trajectories (hereinafter referred to as IET), it is advisable to use the potential of distance learning technologies in organizing independent work of students - future teachers of school organizations. At the Institute of Psychology and Education of the Chirchik State Pedagogical University, at the department of school education, work was carried out to design the IET of students - future teachers of school organizations in accordance with the Federal State Educational Standard of Higher Education 3++ on the basis of the basic professional educational program (OPEP) of the bachelor's degree. The purpose of this article is to present a model for designing individual educational trajectories of students - future teachers of school organizations based on individual curricula in the direction 44.03.01 "Pedagogical education" (profile "School education"), which is determined on the basis of the normative legal documents in the sphere of higher and school education and is substantiated by the method of group expert assessments.

Literary review. It is known that the competence-based format of the Federal State Educational Standard of Higher Education (FSES HE 3++) requires a new design of training results in the form of a system of universal, general professional and professional competencies in the process of mastering the BEP "according to an individual curriculum" students - future teachers using distance learning technologies.

N. A. Selezneva notes that in modern conditions, the competence-based approach in higher education is aimed at greater individualization of learning, which makes it possible to structure students into independent learning activities and their personal responsibility for its results (individual planning, self-assessment, self-organization, self-development, etc.) [3].

The problem of individuality was considered in traditional education in the work of V. I. Slobodchikov, who points to the originality and originality of a person as an individual, as a subject, as a person, a kind of result of a life path [4].

Thus, in the work of I. E. Unt, individualization of learning is shown, reflecting the general features of the individual characteristics of the student and covering, if possible, all forms and methods of taking into account these characteristics. The author says that individualization dwells on the problem of open learning, relatively new for the pedagogy of higher education, as a way of forming the individuality of the student [5].

The first materials about the experience of "open learning" appeared in the 1950s in England, they draw attention to the importance of students freely defining their research interests and expressing their point of view in a dialogue with the teacher, which contributed to the development of critical thinking of the student. and individuality of his personality [6]. In this direction, a study was conducted by V. V. Lorenz [7], who characterized the types of IOT of students, due to the psychophysiological characteristics of students, their needs, interests. The author points out that IET creates an opportunity for the student to realize the meaning of the disciplines being studied in the context of future professional activity, and then the idea of the future itself is a factor that controls the learning process [7].

The relevance of our study is indicated by the work of N. N. Pogrebnyak, who draws attention to the effective implementation of the model of individualized learning in the process of mastering the content of education, its main task is to organize a strategy for interaction between the teacher and the student:

1) from the position of achieving educational goals, when a certain dependence of the actions of the teacher and the student is built, aimed at achieving the desired results by the student;
2) from the standpoint of humanistic psychology, that is, the concept of student autonomy, when interpersonal communication and proper comfort in the process of scientific research are emphasized, but interaction does not correlate with the achievement of specific scientific results [6].

At the same time, N. M. Zhukova considers individualization as a complex that includes the study of the individual characteristics of students, taking into account which allows you to build the educational process at the university in the context of the implementation by each student of their goals of activity, their trajectory of personal-individual and professional development [8]. In this regard, educational activity acts as one of the types of activity of the subject in the educational process. The professional development of the student is carried out in self-educational activity, and the activity contributes to the formation of the future teacher in its trajectory of personal and individual development, defining the student's activity "as vital-functional higher abilities that provide the opportunity to be a subject" [9].

Recognizing the rights of each teacher to be an individual in the educational process, namely, to have their own unique way of development in education, means that it is necessary to create conditions for the variability of learning.

In a study by T. V. Pogodaeva, L. M. Volosnikova, and O. V. Ogorodnova, teachers of the Tyumen State University [10], a model was developed based on a student's individual educational trajectory and a model of liberal arts and sciences.

It is shown that its basic unit is the core program Core - a list of disciplines that are mandatory for studying by all students and aimed at the formation of digital competencies, systemic and critical thinking, the ability to work in modern interdisciplinary teams, the ability to adapt flexibly to ongoing changes. and make decisions in conditions of uncertainty, as well as an important link are electives (electives), elective courses, about 100 elective courses have been developed in five areas of knowledge: natural sciences, art, mathematics and computer science, social and human sciences, social communications. The authors note that due to such a change in the approach to variability, it is possible for students to form an individual curriculum, since students start choosing electives from the first year. The quality of courses is assessed on the basis of a survey of students [10].

In the context of our study, the work of the professor of the Ternopil National Pedagogical University named after V. Gnatyuk G. V. Tereshchuk, according to which the implementation of the competence-based approach is accompanied by an increase in the role of the individuality of each student, should be noted as the closest to its goals student in studies and professional self-determination, also substantiated are possible directions for solving problems that precede directly the implementation of the individualization of education:

- ✓ a clear definition of the diagnostic field and means of assessing educational achievements and opportunities, general and special abilities of each student;
- ✓ interrelation of monitoring of educational achievements of students and professional diagnostics;
- ✓ expansion of differentiation of the content of education;
- ✓ strengthening the degree of independence of students in creating their individual learning trajectories, the use of elements of "open learning";
- ✓ changing the role of the teacher due to the emphasis on his advisory and tutoring function [11].

Thus, in the study by R. I. Ibatullin and E. S. Anisimova, the experience of implementing IET in the model of organizing interaction between a teacher, a student and information technologies in the

framework of e-learning is discussed. The authors describe three directions of the individual educational trajectory:

1. The informative direction ensures the formation of an individual educational trajectory, which gives the student the opportunity to choose the content of education and its level that best suits his abilities, needs and interests.
2. The orientation of the activity ensures the formation of an individual educational trajectory based on modern pedagogical and information technologies.
3. The procedural direction considers the organizational aspects of the educational process. Thanks to the active use of modern information technologies, the most relevant direction for the implementation of individual trajectories is activities focused on information technology. Various types of information technologies can be used in educational activities, but the most popular among them is the technology e-learning [12].

A. N. Menshikova describes the experience of the Kursk State Polytechnic College in the implementation of an individually differentiated approach using a digital educational environment, which is the optimal condition for successful professional self-determination of students - future designers. The initial task of teachers is to diagnose the initial data of students, determine individual qualities, abilities, motivation for professional activities and learning. For example, at the organizational stage, the task of a student is to create a personal account and join the general system, after which access to the modules of the MDT was opened, creating the opportunity to fully study: study theoretical material, instructions for practical tasks, leave comments, hand in work, answer questions , watch master classes, video lectures and documentaries. In-depth study modules have also been developed for strong students who are ahead of the program, or for those who are interested in a topic and want to learn more information on it additionally [13].

The study by E. V. Naumova-Kolchedantseva from the Tyumen State University emphasizes that the main tool for intensive practice-oriented training (and education in general) of future teachers is an individual trajectory that allows you to form a specific function.

The study by E. V. Naumova-Kolchedantseva from Tyumen State University emphasizes that the main tool for intensive practice-oriented training (and education in general) of future teachers is an individual trajectory that allows the formation of specific functionality that corresponds to professional plans, the type of educational organization, and the intended position relevant professional requirements. Practice involves interaction with various subjects in an open social and educational space, namely, active social interaction not only with pupils, but also with the parents of students. At the same time, the individual trajectory of student development during the period of practice is understood as a kind of personal way of mastering the intended functionality, allowing the student to discover and realize his potential [14].

In the study of M. R. Iblyaminova, it is noted that an individual educational trajectory is a multifaceted phenomenon that has a key meaning in the freedom of choice of participants in the educational process, thereby creating adaptive conditions for self-determination, self-realization and self-improvement in the conditions of the educational process [15].

The relevance of our study is indicated by the work of D. A. Boyarinov, who notes that in the conditions of the information educational space, monitoring retains its role as a link in the process of managing the quality of education (within the framework of the traditional management scheme: planning - activities - monitoring - providing control actions) . Moreover, it acquires some new properties, the key of which is to ensure the continuity of internal information processes and, due to this, the information integrity of the entire space based on the educational program and standards stored in the system and creating the possibility of designing individual educational trajectories [16].

At the same time, E. A. Khodyreva notes that in order to improve the mechanisms for assessing quality, it is necessary to prepare jointly with interested parties; it is necessary to determine the list of competencies being formed as the main results that the training of future teachers is focused on, as well

as to justify the indicators for achieving the recommended professional competencies and independently established professional competencies, based on the requirements for the professional activity of a graduate in a particular educational system (regional, municipal) or in one or another educational organization [17].

In the same direction, studies by D. Confrey, A. Maloney, D. Corley were carried out, in which it is noted that educational standards in mathematics Common Core State Standards for Mathematics (CCSS-M) (CCSSI 2010) in the United States contain the formulation of learning objectives of the competence and it is necessary to integrate such formulations of objectives with the educational core in order to promote the coherence of curricula and curricula in the learning process at the university. The authors described the learning process as a synthesis of "learning paths" as standards and descriptors associated with the curriculum and assessment materials [18].

A study by Yu. V. Korchemkina, N. A. Belousova and V. P. Maltseva was conducted at the South Ural State Humanitarian Pedagogical University under the conditions of using the module-rating technology and analyzing a large amount of data on the passage of modules by students and the values of individual ratings govy indicators of students. The authors use OLAP technologies to analyze the results of students' activities in mastering various disciplines, including modules containing tasks for students' work, and modules for monitoring and analysis by the teacher: current monitoring of students' work and analysis of the results of work on various rating scores. The introduction of this system into the educational process allowed teachers, based on the analysis of data on individual indicators of students, to build individual trajectories of students, thereby increasing the level of their learning motivation [19].

At the same time, V. G. Erykova considers the IOT of a student as a student-centered organization in accordance with the Federal State Educational Standards and the curriculum, aimed at the formation of an individual style of self-educational activity and the gradual mastery of competencies in the educational process [20].

However, it should be noted that publications devoted to the problem of designing IET in the educational process are isolated and do not address the development of individual curricula for students - future teachers, taking into account the requirements of the federal, regional labor market, as well as the academic community and educational needs, the interests of the students themselves.

Methodological base of the research:

Learning using distance learning technologies when organizing students' independent work, as well as to determine the structure, content and levels of development of professional and pedagogical competence of students, the choice of criteria for the quality of learning outcomes. Model for designing individual educational trajectories of students - future teachers

The model we propose is schematically shown in Fig. 1. Let us consider it in more detail. The first block of the model represents the social order for higher education, which is aimed at meeting the needs of the labor market on the basis of the professional standard "Teacher", which determines the generalized labor functions of the skill level for the formation of professional competencies established by the BEP of the bachelor's degree. In addition, one of the features of the FSES HE 3++ is the participation of employers in the formation of the goals of practical training, the pedagogical tasks of the future professional activity of the graduate. At the same time, within the framework of the internal system for assessing the quality of educational activities of students, the opportunity is provided for assessing the conditions, content, organization and quality of the educational process as a whole and individual disciplines (modules) and practitioner. Thus, the design model of IET for students - future teachers will help improve the quality of the educational process by individualization of learning. The responsible persons for the design of the IET include: the director of the IPE, who implements the procedure for the organization and educational activities of the OBEP in the educational process; Deputy Director of the IPE for educational activities, coordinating the preparation of curricula, BEP and teaching methods, creating organizational and pedagogical conditions for their implementation in the educational process, as well as monitoring the implementation of the schedule of the IPE educational process; the head of the

department of education, who organizes the timely preparation and submission for approval to the head of the department: the schedule of training sessions for each semester; schedule of the educational process and working curricula; the dean's office, which registers the students who arrived at the session, maintains training cards for the implementation of the individual curriculum by students (hereinafter referred to as IEP) following the results of the session, promptly makes the necessary changes to them and compiles summary statements on the implementation of the curriculum by students for the entire course of study at the university, monthly prepares a report on the movement of the contingent of students according to the IEP.

The head of the department of school education forms a responsible group for the design of IET and determines the content of training courses, and also monitors the implementation of students' IEP [27]. In our case, these are the teachers of the department responsible for the development of the BEP in the educational process when implementing the curriculum in the form of an IEP (see table), containing an individual training schedule based on IET with the content and terms of development, taking into account the characteristics and educational needs of a particular student. To identify the structural components of professional and pedagogical competence, formed within the framework of individual curricula and individual educational trajectories of students corresponding to them, the method of group expert assessments presented in Fig. 1 was used. 2.

Research results

Monitoring the quality of IET implementation characterizes the procedures for intermediate and final diagnostics, which are based on the taxonomy of educational goals with the allocation of basic, systemic, technological and professionally creative levels, a detailed description of which is given in the work. In the course of pedagogical expertise, four levels of formation of professional and pedagogical competence were established: basic - the individual activity of a student is based on the necessary minimum of knowledge and skills, motivated by the need to ensure protection and safety in professional activities; systemic - the student's individual activity is based on the ability to apply knowledge, skills, action algorithms; friendly relations with participants in the educational process in professional activities; technological - the individual activity of the student characterizes the design and implementation of general educational programs of school education, which is aimed at professional self-improvement and deserves respect, recognition from the participants in the educational process in professional activities; professional and creative - the student's individual activity is characterized by the ability for self-development, a developed sense of empathy, susceptibility to innovation, readiness for creativity for the effective organization and management of the educational process, including with the involvement of ICT in professional activities.

At the same time, the relative "upper" level is determined to diagnose the level of formation of professional and pedagogical competence of a graduate of a bachelor's degree as an "educational ideal" and "leading ahead", the image of which is formed on the basis of building predictive models of the quality of education of an individual completing higher education, and most evaluated at the state final certification. The "lower" level reflects the minimum level of requirements corresponding to the Federal State Educational Standard of Higher Education 3++ and providing the student with the opportunity to study at the next level of education or self-employment in a school organization.

A feature of the considered model is that it takes into account the functions of assessing the quality of the implementation of the IET of students - future teachers of school organizations, adopted in pedagogical qualimetry:

- target - checking the degree of achievement of the real level of quality of training of a graduate of a bachelor's degree in accordance with the Federal State Educational Standard of Higher Education 3 ++ in the direction 44.03.01 "Pedagogical education" (profile "School education").
- informational – the use of the values of training quality indicators for information support of teachers and students of pedagogical monitoring and other responsible persons;
- analytical - involves pedagogical monitoring of the implementation of target settings for the

standards of higher, professional and school education, identifying the significance of factors in the quality of training;

- developing - provides for an increase in the level of general, basic and professional-pedagogical competence through training and self-development of students;
- motivational and incentive - aimed at stimulating the activity of the student, taking into account the nature and level of satisfaction with the educational space, personal qualities and abilities.

A feature of the considered model is that it takes into account the functions of assessing the quality of IET design at a university, adopted in pedagogical qualimetry, the requirements of federal state educational standards. On its basis, it is possible to create educational and methodological support for individual educational trajectories, the essence of which is the responsible choice of the student's own program of professional growth, taking into account needs and interests.

Conclusion

The results of the study indicate that the design of individual educational trajectories of students - future teachers are a promising direction of individualization of education. Individual educational trajectories make it possible to activate independent work in the required volume, to find and apply the required information that contributes to the development of pedagogical thinking for planning professional results, skills of analysis and generalization using distance learning technologies in the learning process.

The results obtained in the present study are consistent with the conclusions of foreign and Russian scientists who note the strategies of individual educational trajectories focused on promoting the academic achievements of students with the help of self-government in the educational process according to the curriculum, as well as in the context of the implementation of the main educational program. taking into account the needs of participants in the educational process.

Therefore, the further continuation of our work will be the creation of a design technology and the implementation of individual educational trajectories that contribute to the formation of professional and pedagogical competence as an integrative dynamic quality necessary for a future teacher for successful professional activity in the system of school education related to assessment and quality management in a pedagogical university.

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