



STUDENT'S INDIVIDUAL EDUCATIONAL TRAJECTORY: STAGES AND REQUIREMENTS FOR BUILDING

TRAJETÓRIA EDUCACIONAL INDIVIDUAL DO ALUNO: ESTÁGIOS E REQUISITOS PARA A CONSTRUÇÃO

TRAYECTORIA EDUCATIVA INDIVIDUAL DEL ESTUDIANTE: ETAPAS Y REQUISITOS PARA LA CONSTRUCCIÓN

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ABSTRACT: The article discusses the individual educational trajectory, the stages of building individual educational trajectory, the requirements for building individual educational trajectory, and the individualization of the educational process. An individual educational trajectory can be defined as a personal way of realizing the student's personal potential in the educational process. The building and implementation of individual educational trajectories are possible as long as students implement a logically justified chain of choices in the course of their educational activities that lead to the necessary result. A special role in the building and implementation of individual educational trajectories (routes) is played by the nature of the interaction between the teacher and the student. The most successful is considered to be psychological and pedagogical support, i.e., a system of individual support in personal and professional development, as well as counseling in the formation of individual professional experience and mastering professional skills.

KEYWORDS: Individual educational strategy. Individual educational trajectory. Individual educational route. Person-centered education.

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RESUMO: O artigo discute a trajetória educacional individual, as etapas de construção da trajetória educacional individual, os requisitos para a construção da trajetória educacional individual e a individualização do processo educacional. Uma trajetória educacional individual pode ser definida como uma forma pessoal de perceber o potencial pessoal do aluno no processo educacional. A construção e implementação de trajetórias educacionais individuais são possíveis desde que os alunos implementem uma cadeia de escolhas logicamente justificada no curso de suas atividades educacionais que conduzam ao resultado necessário. Um papel especial na construção e implementação de trajetórias educacionais individuais (rotas) é desempenhado pela natureza da interação entre o professor e o aluno. O mais bem sucedido é considerado o apoio psicológico e pedagógico, ou seja, um sistema de apoio individual no desenvolvimento pessoal e profissional, bem como o aconselhamento na formação da experiência profissional individual e no domínio das competências profissionais.

PALAVRAS-CHAVE: Estratégia educacional individual. Trajetória educacional individual. Percorso educacional individual. Educação centrada na pessoa.

RESUMEN: El artículo analiza la trayectoria educativa individual, las etapas de construcción de la trayectoria educativa individual, los requisitos para la construcción de la trayectoria educativa individual y la individualización del proceso educativo. Una trayectoria educativa individual se puede definir como una forma personal de realizar el potencial personal del estudiante en el proceso educativo. La construcción e implementación de trayectorias educativas individuales es posible siempre que los estudiantes implementen una cadena de elecciones lógicamente justificada en el curso de sus actividades educativas que conduzcan al resultado necesario. La naturaleza de la interacción entre profesor y alumno desempeña un papel especial en la construcción e implementación de trayectorias educativas individuales. Se considera que el más exitoso es el apoyo psicológico y pedagógico, un sistema de apoyo individual en el desarrollo personal y profesional, así como el asesoramiento en la formación de la experiencia profesional individual y el dominio de habilidades profesionales.

PALABRAS CLAVE: Estrategia educativa individual. Trayectoria educativa individual. Ruta educativa individual. Educación centrada en la persona.

Introduction

Recently, there has been a growing number of supporters of humanistic pedagogy and an education model focused on the maximum development of creative abilities and the creation of a strong motivation for individual self-development based on the *educational trajectory*.

Such terms as *individual educational strategy*, *individual educational trajectory*, *individual educational route* have appeared in pedagogy and are used both in the practice of general and professional education.



It is believed that the historically individual educational route was recognized as early as 1732: the cadets of the land corps did not depend on the general regulations for the duration of the training course. One cadet could study in different disciplines in various *classes*, could move from *class* to *class* at different times of the year, as they mastered the program material, regardless of the pace of learning of others. The concept of *academic year* was conditional: someone will study the annual amount of material faster and move to the next *class* earlier.

An individual educational route is a fixed result of students choosing the sequence and form of acquaintance with information, its content and pace of assimilation, options for self-assessment, and presentation of the product of their education to others. The framework of an individual educational route is subjective, they are determined by the interests and needs of the student, the material and technical equipment of the educational organization, the level of professionalism of the teacher. The organization of training, which provides for an individual educational route, differs from the traditional form in that students are allowed not to attend classes as part of a permanent and approved group, but to come to those classes and choose the level of teaching that each of them needs (POPOVA, N., 2017).

Although sufficient attention is paid to the study of this problem, there are currently no uniform didactic principles for designing the stages of individual educational trajectories.

Based on the work of Khutorskoi (2001) and Aleksandrova (2006), we have developed the stages of the student's activity organized by the teacher, allowing to provide their trajectory in a specific educational area, section, or topic.

Methods

The following methods were used in the study: analysis of the methodological foundations for building an individual educational trajectory of students; generalization of pedagogical experience in developing the stages and requirements of an individual educational trajectory of students.

According to Aleksandrova (2006), an individual learning strategy is a set of didactic measures that determine the immediate prospects for a student's development in the context of providing them with pedagogical assistance and support. The complex includes a curriculum, training programs, additional sources of information, various types and levels of tasks, instructions and methodological recommendations, tests for self-control and self-assessment, individual consultations, and additional classes.





The individual educational route is defined as the path of self-movement of the student from misunderstanding to understanding, from an inability to ability, from ignorance to knowledge. In most cases, it differs from the sequence of studying the list of disciplines established by the curriculum of an educational institution or from the rate of assimilation of the material proposed by it (VILANDEBERK; SHUBINA, 2007).

The organization of training, which provides for an individual educational route, differs from the traditional form and can be divided into blocks.

Personal block. The goal is to fix individual characteristics:

- Abilities, temperament, self-esteem;
- Features of students' behavior in the system of interpersonal relations (behavior in conflict, social status in a group, personality traits that manifest themselves in interpersonal relationships);
- Professional orientation of the individual (motives of pedagogical activity, professional orientation, professional interest, empathy ability).

The block of professional competence, of which goal is to track the internal and external processes of professional competence formation through self-assessment and expert assessment of the level of development of key, basic and special competencies.

Depending on the formed competencies of students, together with the teacher, the former develops a system of tasks that make up an individual educational route. The system includes the following components:

- Target (takes into account the requirements of the federal and regional educational standards and provides a certain level of education);
- Content-based (determined by the educational needs, individual abilities and capabilities of the student, the content of education; technological, diagnostic, organizational and pedagogical determines the conditions for implementation, forms of control and certification of achievements);
- Effective (the results are described).

The individual educational trajectory can be defined as a personal way of realizing the student's personal potential in the educational process. The building and implementation of individual educational trajectories are possible provided that students implement a logically justified chain of choices in the course of their educational activities that lead to the necessary result (KHUTORSKOI, 2001).



The building and implementation of educational trajectories are based on the following principles: subjectivity, freedom of choice, openness, uniqueness, integrity, creativity, productivity, continuity.

The freedom of choice of trainees extends to:

- Sources of information and the sequence of acquaintance with them;
- The degree of tasks complexity and forms of reporting of a different nature: creative or analytical, oral or written, corresponding to their style of learning (auditory, visual, kinesthetic, etc.);
- Partner—another student or teacher to work together on a task or project;
- Individual pace of learning.

The main means for the implementation of individual educational trajectories are educational cultural, social, material environment as a source of obtaining a variety of knowledge, experience, and emotional perception of reality; paper media (books, magazines, educational literature), electronic media (electronic textbook, Internet, television).

A special role in the building and implementation of individual educational routes (trajectories) is played by the nature of the interaction between the teacher and the student. The most successful is considered to be psychological and pedagogical support, i.e., a system of individual support in personal and professional development, as well as counseling in the formation of individual professional experience and mastering professional skills (ALEKSEEV, 1997; ANIKEEV, 1997). Support solves three main tasks: tracking the characteristics of students' mental development, creating conditions for the full development of each student within their age and individual capabilities, creating special conditions for assisting students experiencing any difficulties. All this allows the teacher to choose the most effective methods and techniques of pedagogical and psychological interaction with the student to develop a competent, competitive specialist (LOMAKINA, 2013).

Taking into account individual characteristics and the nature of training is necessary for various categories of students: schoolchildren, students of secondary vocational education, and higher education. Each student is allowed to create their educational trajectory for mastering all topics and/or modules (ZEER; SYMANYUK, 2014).

Simultaneous implementation of personal models of education is one of the goals of education in the system of additional education. The task of training is to provide an individual zone of creative development of the schoolchild and the student, allowing them to create educational products at each stage, based on their individual qualities and abilities.





Thus, the individual trajectory of education is the result of the realization of the student's personal potential in education through the implementation of appropriate activities. We share the point of view of Osmolovskaya (2017), in which the organization of personality-oriented education aims to realize the following rights and opportunities:

- The right to choose or identify individual meaning and goals in each training course, topic, lesson;
- The right to personal interpretations and understandings of fundamental concepts and categories;
- The right to draw up individual educational schedules for the studied programs;
- The right to choose an individual pace of learning, forms and methods of solving educational problems, methods of control, reflection and self-assessment of their activities based on knowledge of their characteristics;
- Exceeding (advancing or deepening) the mastered content of training courses; individual choice of additional topics and creative works on subjects;
- The right to an individual picture of the world and individual justified positions for each educational position.

The main elements of educational activity: the meaning of the activity (why am I doing this); setting a personal goal (anticipating the result); activity plan; implementation of the plan; reflection (awareness of one's activity); evaluation; correction and redefinition of goals.

The condition for achieving the goals and objectives of personality-oriented learning is to preserve the individual characteristics of students, their uniqueness, multilevel, and diversity. To do this, the following methods are used:

1. Individual tasks in the classroom;
2. Organization of pair and group work;
3. The formulation of open classes that involve their implementation individually by each student ("My representation of the algorithm", "What do I mean by the 'discreteness'", etc.);
4. A proposal to make a lesson plan, choose the content of independent work, the topic of creative work, an individual educational program on the subject for the foreseeable period.

The main task of person-centered learning is to build such an individual trajectory of their education for each student, which would correlate with the generally recognized





achievements of mankind. Education is not limited only to the achievement of personal goals. They are compared with their cultural and historical analogs after the demonstration of educational products. This stage can give rise to a new cycle of training with appropriate goal setting. During the reflexive and evaluative stage of training, educational products of students are identified that relate both to the individual results of their activities and the general cultural achievements being studied, including educational standards.

The organization of training on an individual trajectory requires a special methodology and technology. In modern didactics, it is usually assumed to solve this problem in two opposite ways, each of which is called an individual approach.

The first method is the differentiation of training, according to which it is assumed to approach each student individually, differentiating the material studied by the degree of complexity, orientation, or other parameters. For this purpose, students are mainly divided into groups: capable, average, lagging levels A, B, C (POPOVA, O., 2014).

The second method assumes that the individual path of education is built for each student concerning each educational area studied by them. In other words, everyone is allowed to create their educational trajectory for mastering all educational sections and modules.

The task of training is to provide an individual zone of creative development for each student. The student chooses their educational path based on individual qualities and abilities. Simultaneous implementation of personal models of education is one of the goals of person-centered education.

The personal potential is understood here as a set of the student's abilities: organizational, cognitive, communicative, etc. The process of identifying, implementing, and developing these abilities of students occurs during their educational movement along individual trajectories.

It follows from the above that if we identify specific personal abilities of students as guidelines for conducting educational activities for each section of the educational program, then the path of mastering these topics and sections will be determined not so much by the logic of these subjects, but by the totality of personal abilities of each student. The main role among these abilities will belong to those due to which they create new educational products, that is, creative abilities.





Results

We have developed five stages of the student's activity organized by the teacher based on the work of Khutorskoi (2001) and Aleksandrova (2006):

The first stage is diagnostic. Diagnostics by the teacher of individual and personal characteristics and the level of formation of knowledge, skills, and abilities of students are necessary for the implementation of those types of activities that are characteristic of this educational field or its part. The initial volume and content of education are fixed, that is, the quantity and quality of ideas, knowledge, information, skills, and abilities available to each of them on the upcoming academic topic. The motives of students' activity concerning the educational field, their preferred types of activities, forms, and methods of classes are established and classified. The degree of formation of mental activity skills, the organization of independent educational activities, the presence and nature of educational difficulties, requests for in-depth (extended, enriched) education are studied.

The second stage is informative. The fixation of fundamental educational objects by each student, and then by the teacher, in the educational field or its topic, to designate the subject of further knowledge. Each student makes up the initial concept of the topic that they will have to master. A concept is understood as an expression in a schematic, pictorial, sign, symbolic, thesis, or another form of a meaningful image of the topic, which is based on the system of fundamental educational objects and their various functional manifestations, both in the real and in the ideal world.

Fundamental educational objects are divided into general educational standards for all and individual for each student, which are determined by them as subjectively significant.

The third stage is the design one. Designing an individual educational trajectory of a student. The type of individual learning strategy is chosen—deepening, acceleration, enrichment—following the individual and personal characteristics of the student, their success, an individual educational trajectory of studying the program is developed and, on its basis, an individual plan of educational activities and a schedule for completing tasks for independent study of the discipline is established. Together with the teacher, the quality of the planning is analyzed, the missing elements of the plan and schedule are filled in and the existing ones are optimized.

At this stage, an individual image of the cognizable area is being constructed. The student, with the help of a teacher, acts as an organizer of his/her education: he/she formulates goals, selects topics, assumes his/her final educational products and forms of their





presentation, draws up a work plan, chooses means and methods of activity, establishes a system for monitoring and evaluating his/her activities.

At this stage, individual training programs for the designated period are created for students (training session, topic, module, section).

The fourth stage is organizational and accompanying. Pedagogical support in the implementation of an individual educational trajectory. Consultations are held on the studied topics and sections, on the choice of methods of educational activity, self-control and self-assessment, forms of providing products of their independent activity. The student improves the main elements of educational activity: goal setting, planning, goal fulfillment, comparison of the results obtained with the set ones, evaluation of what has been achieved based on predefined criteria. It is possible to organize psychological training sessions aimed at developing reflexive skills and self-regulation skills, a culture of emotions, personal growth, and creative self-development. It is important to note that at this stage, systematic monitoring and analysis of the achieved intermediate results is necessary. This will allow more accurate tracking of the achievements of each student in the process of implementing an individual trajectory and, if necessary, making changes to the individual educational route in time.

The implementation of the planned programs by students takes place within a certain period. The student carries out the main elements of individual educational activity: goals, plan, activity, reflection, comparison of the received products with the goals, and self-assessment. This cycle is implemented repeatedly until all its elements are assimilated.

The fifth stage is the reflexive-evaluative one. Individual and general educational products of activity are identified (in the form of schemes, concepts, material objects), the types and methods of activity used (reproductively assimilated or creatively created) are fixed and classified. The results obtained are compared with the goals of individual and general collective training programs. Each student is aware of and evaluates the degree of achievement of individual and general goals, the level of their internal changes, the learned methods of education, and the areas they have mastered. The general educational process collectively obtained results and ways to achieve them are also evaluated.

The above allowed formulating our definition: the individual educational trajectory of a student is a form of individualization and differentiation of professional education, based on the freedom of choice of goals, content, forms, methods, means, methods of reflection and the pace of learning in joint activities with a teacher (BAIBORODOVA, 2018).





Final considerations

The following position is fundamental in person-centered learning: any student can find, create or offer their solution to any problem related to their learning.

They will be able to move along an individual trajectory in all educational areas if the following opportunities are given: to determine the individual meaning of studying academic disciplines; to set their own goals in studying a specific topic or section; to choose the optimal forms and rates of learning; to apply those methods of teaching that most correspond to their characteristics; to reflexively realize the results obtained, to evaluate and adjust their activities.

The possibility of an individual trajectory of education suggests that a student can, for example, choose one of the following approaches when studying a topic: figurative or logical cognition, in-depth or encyclopedic study, introductory, selective, or extended study of the topic. The preservation of the logic of the subject, its structure, and content foundations will be achieved with the help of a fixed volume of fundamental educational objects and related problems, which, along with an individual learning trajectory, will ensure that students achieve a normative educational level.

The educational products of students differ not only in volume but also in content. This difference is due to individual abilities and the corresponding types of activities used by them when studying the same fundamental educational object.

The teacher can and should offer students various types of activities for assimilation, both emotional (figurative and logical), but if we take into account the priority types of activities of each participant in the educational process, we should allow the choice of these types when studying the same educational objects. In this case, not one common educational trajectory will be provided for all students, which differs in each case in the volume of assimilation of standards, but individual trajectories that lead them to the creation of personal educational products that differ in both volume and content. Even with the same knowledge about the studied objects, the individual educational products obtained at the output are different, since the types of activities they have learned and the level of their development are different.

The achievements of each student are correlated with the identified general set of means of cognition and types of activities as a collective product of training, which allows them not only to understand the collective results but also to assess the degree of their progress in mastering these methods of activity and the realization of personal qualities.



The identified individual educational products related to the same educational objects are compared, analyzed, classified, there are commonalities and differences between them, subordination, hierarchy; the final concept of knowledge and experience of all participants of training in this educational field is constructed.

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How to reference this article

BELCHENKO, V. E.; HARUTYUNYAN, A. A.; NIKOLAEVA, L. G.; BOGDANOVA, A. V.; LAPSHIN, N. A.; ALEKSANYAN, G. A. Student's individual educational trajectory: stages and requirements for building. **Nuances Est. Sobre Educ.**, Presidente Prudente, v. 32, e021013, jan./dez. 2021. e-ISSN: 2236-0441. DOI: <https://doi.org/10.32930/nuances.v32i00.9126>

Submitted: 10/09/2021

Required revisions: 10/10/2021

Approved: 13/11/2021

Published: 28/12/2021