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The role of educational technologies in the individualization of educational students' activities

Роль образовательных технологий в индивидуализации учебной деятельности студентов

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Abstract

The basis of the modern student's training is the idea of individualization of his educational activities since the modern educational paradigm has designated the personality of the student and his needs as the most important link in this system. Higher educational institutions in search of effective ways of formation of competence of the future specialist using individualization of its activity use possibilities of innovative educational technologies. The purpose of the article: to consider the experience of implementation of educational technologies in the individualization of educational activities of students. The article presents an overview of the essence and importance of educational technologies used in the modern educational process, the features of their implementation and their role in the individualization of student activity. We considered the experience of implementation of educational technologies in the individualization of educational activities of students. Innovative technologies have a powerful potential in shaping the competence of future specialists. Individualization of training takes place in comfortable conditions for the teacher and the student. The teacher has the opportunity to constantly monitor the level of

Аннотация

В основе подготовки современного студента заложена идея индивидуализации его учебной деятельности, поскольку современная образовательная парадигма обозначила личность обучающегося и его потребности важнейшим звеном в этой системе. Высшие учебные заведения в поисках результативных способов формирования компетентности будущего специалиста с помощью индивидуализации его деятельности используют возможности инновационных образовательных технологий. Цель статьи: рассмотрение опыта реализации образовательных технологий в индивидуализации учебной деятельности студентов. В статье представлен обзор сущности и значимости образовательных технологий, используемых в современном образовательном процессе, рассмотрены особенности их внедрения и их роль в индивидуализации студенческой деятельности. Нами был рассмотрен опыт реализации образовательных технологий в индивидуализации учебной деятельности студентов. Инновационные технологии обладают мощным потенциалом в формировании компетентности будущих

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knowledge of the student and make timely adjustments, directing it in the right direction. When students perform tasks, the teacher carried out periodic consultations, where he covered for students the questions that appeared to them. The teacher conducted small surveys and tests, with the help of which the test of assimilation of the material was determined. The study presented in the article allowed to determine the impact of individualization of education on the level of student performance. Based on the data obtained in the course of our research, we can conclude that educational technologies provide ample opportunities for individualization of the learning process and contribute to the formation of professional competence of a specialist.

Key Words: competence approach, educational activity, educational technologies, educational process, individualization.

Introduction

The sphere of higher education in Russia is going through a period of reformation, which began several years ago. Today, higher schools, adapting to the requirements of Federal state educational standards are looking for new ways to prepare students. Although the intensity of the reform processes has decreased, the transformation continues. The new educational paradigm has designated the personality of the student as the highest value, and has changed the purpose of education. From the formation of knowledge, skills and abilities, we moved to the development of competencies (Bartkiv et al., 2018). In this process, where humanization is one of the most important directions of development, and personality and its needs are the Central links, the key condition is an individualization of

специалистов. Индивидуализация обучения проходит в комфортных для преподавателя и студента условиях. Преподаватель имеет возможность осуществлять постоянный контроль за уровнем знаний студента и своевременно вносить коррективы, направляя его в нужное русло. Интерактивные технологии позволяют создать комфортные условия на занятиях, в которых все студенты взаимодействуют между собой. Интерактивные технологии предполагают создание жизненных ситуаций, решение вопросов на основе анализа различных ситуаций и обстоятельств, которые активизируют деятельность студента. При выполнении студентами заданий преподаватель осуществляет периодические консультации, где освещает для студентов вопросы, которые у них появились. Преподавателем проводятся небольшие опросы и тестирования, с помощью которых определяется проверка усвоения материала. Исследование, представленное в статье, позволило определить влияние индивидуализации обучения на уровень успеваемости студентов. Основываясь на данных, полученных в ходе проведенного нами исследования, мы можем сделать вывод о том, что образовательные технологии предоставляют широкие возможности в индивидуализации процесса обучения и способствуют формированию профессиональной компетентности специалиста.

Ключевые слова: индивидуализация, компетентностный подход, образовательные технологии, образовательный процесс, учебная деятельность.

learning (Ihnatenko et al., 2018). The purpose of individualization is to preserve and develop the individuality of the student, the formation of his personality and professional competence. Individualization helps to meet the needs of the individual and takes into account its capabilities. American scientists, developing the question of individualization, emphasize that educational practice should include small courses that students can choose to study on their own, to select the areas that interest them most (Klinkov et al., 2018). In this case, individualization will be faster and better (Denysenko et al., 2018). In Russian educational practice, there are disciplines of choice, but this direction is not too developed, so domestic higher education institutions are looking for other effective ways

to individualize the learning process (Ivanova, et al 2019). These include the use of various educational technologies that allow achieving specific results (Rakhimbayeva et al., 2019). The domestic system of higher education solves the issues of individualization with the help of the principle by which the teacher interacts with students in terms of cooperation, works with them on an individual model, takes into account their individual and personal characteristics. The use of various educational technologies in this process will allow achieving better results (Ilyashenko et al., 2019b). Technologies have a feature that guarantees the achievement of goals (Bulaeva et al., 2018). Technologies of training in cooperation help students to unite and independently solve arising questions (Abramova et al., 2018). The teacher, as part of the implementation of problem learning, confronts students with a contradiction that they must resolve and students process a large amount of information, interacting, and helping each other in the selection of relevant materials (Nikonova, et al 2019b). Although training takes place in the conditions of group interaction, for each student it has the individualized orientation as the teacher through electronic technologies has the possibility of constant operational control. If any student makes systematic mistakes and does not try to perform the task, does not seek to interact, the teacher takes appropriate measures for this. Identifies the causes, establishes the educational needs of a particular student.

Theoretical framework

Many scientists have been engaged in the individualization of education for a long time (Vaganova et al., 2019a). The effectiveness of individualized learning mainly depends on several main aspects: the degree of quality of the teaching activity of the teacher (lectures, seminars, practical classes using various educational technologies) and the stimulation of the active educational and cognitive position of students (Garnevska et al., 2018), the competent organization of their independent work (Vaganova et al., 2019d). Individualized learning helps to advance the modernization of modern vocational education (Vaganova et al., 2019b). Individualization is seen as a process in which the preparation of students, based on the individual characteristics of the students, reveals the abilities of each to achieve appropriate results (Kamenez et al., 2019). Individualization of educational activities of students involves dosing the volume of educational material by the abilities of students, with educational goals,

taking into account the development of their creativity and independence (Vaganova et al., 2019e). This process takes into account the mental and physical qualities of the student, various States of personality: features of perception of the material, character traits, motivation, health opportunities (Makhometa et al., 2018). Individualization is based on the following principles: a conscious perspective (each of the students should be an active subject of the educational process, increase the level of self-education, identify ways to improve their training) (Pometun et al., 2018.); mutual enrichment of students in the process of active interaction with each other (knowledge is expanded and deepened through constant discussion and independent search for relevant information for a particular issue with the advice of the teacher) (Markova et al., 2019); individualized planning and design of the educational process (Sedykh et al., 2019); individual responsibility of each student for their activities and the activities of their fellow students, if the learning process is carried out in a team (Nikonova et al., 2019a); dynamics and variability (each student must be involved in the educational process, the dynamism of their participation is ensured, as it allows the teacher to create individual ways of development of students and improve them); stimulation of independence (involves the use of subject-oriented technologies that meet the needs of students, contribute to independent choice and decision - making, designing their work throughout study); development of autonomy (involves reducing internal conflicts, the ability to build a strategy of behavior in educational situations and the ability to follow it) (Smirnova et al., 2018a). In the process of individualization, there is a recognition of the specificity and uniqueness of each student, stimulating the creativity of the student, providing subject-subject interaction (Ilyashenko et al., 2019a).

Individualization of the learning process involves activation of the activity position of each student; orientation to the educational needs of students; taking into account the achievements and personal and professional aspirations of students (Markova et al., 2018); motivation of students to study disciplines; providing advice from teacher to the student in the conditions of cooperation (Chirva et al., 2018). The forms of individualization of students' work include: differentiation of learning (grouping of students by individual characteristics or complexes of these features) (Vaskovskaya, et al 2018); individualization of academic work within the group (the teacher notes the contribution to the

overall work of each student participating in any issue) (Vaganova et al., 2019f). Many scientists, differentiating the work of students, use innovative educational technologies (Vaganova et al., 2019c). For example, with the help of information technology, educational information is divided by the amount of material (Koshechko et al., 2018), by the method of presentation and by the degree of difficulty of perception. Educational technologies make it possible to organize a group and individual work in practical classes with both excellent students and students with poor training (Smirnova et al., 2019). Problem learning technologies allow students to become familiar with the issues that may arise in real professional conditions (Rakhimbaeva et al., 2019). It is a process in which a teacher confronts students with a problem situation containing a question or contradiction that students must resolve. In this process, information technologies are involved, which help to individualize it. Audio-video tools are used (because some students perceive information better visually, and some by ear). The teacher can record lectures on video and provide them with the electronic course. Also, lectures can have a traditional written form, which are located on an electronic course on an electronic platform. More often than not, higher education institutions choose Moodle as this platform because it provides a sufficient number of tools for effective learning. Teachers, to enhance the activities of students use discussion technologies, during which students show their strengths and weaknesses. Based on the discussion, the teacher makes individual recommendations for students to study materials. In the study of pedagogical disciplines in the individualization of training, the teacher supports students, assists in the process of information exchange, identification of different points of view, reveals their personal experience and supports the activity of all participants, creates conditions for mutual enrichment of students, facilitating the perception of the material, its assimilation. Individualization of the learning process through the use of educational technologies includes: a variety of topics to study; creating situations of success; the use of both group and individual reflection, individual formulation of tasks by the teacher to solve certain problems.

Methodolog

In the process, we reflect the results of a study of achievement levels of students enrolled in the profile "Law and enforcement" (group 1), "Economics and management" (group 2), Construction (group 3) in the amount of 78 people (2017 before the introduction of individualization of the learning process). And the same groups of students in the number of 80 people in 2018 (after implementation). Academic performance in 2017 was determined by analyzing the statements. The level was determined by the average score of students. To determine the level of performance, we analyzed the statements for 2017, identified the average score and established the following: high level (4.5-5 points), average level (3.5-4.4 points), low level (3.4 points and below). The highest of the three groups score was in 1 group of students. In the first group, the average score is 4, in the second – 3.8, in the third-3.9. These data were the reason for the active implementation of individualization of the learning process with the help of innovative educational technologies that guarantee the achievement of the objectives. In 2018, the average score increased. Students who had previously failed to achieve positive results in the development of the material became more confident in their knowledge. In 2017, the average score of group 1 reached 4, in 2018 it became equal to 4.5. The second group showed results in 2017 at the level of 3.8 points, in 2018 this level became equal to 4.3, in 2017 in the third group – a score of 3.9, in 2018-4.8.

Results and discussion

In our study, the emphasis is placed on such a form of individualization as intra-group differentiation. Individualization of the learning process took place within the group activities of students. To study materials and perform tasks, they were divided into subgroups. We analyzed the performance of students of pedagogical University, studying in the profiles "Law and law enforcement" (group 1), "Economics and management" (group 2), "Construction" (group 3) in the number of 78 people. To determine the level of performance, we analyzed the statements for 2017, identified the average score and established the following: high level (4.5-5 points), average level (3.5-4.4 points), low level (3.4 points and below).

Figure 1 presents the results of the analysis of student progress sheets for 2017.

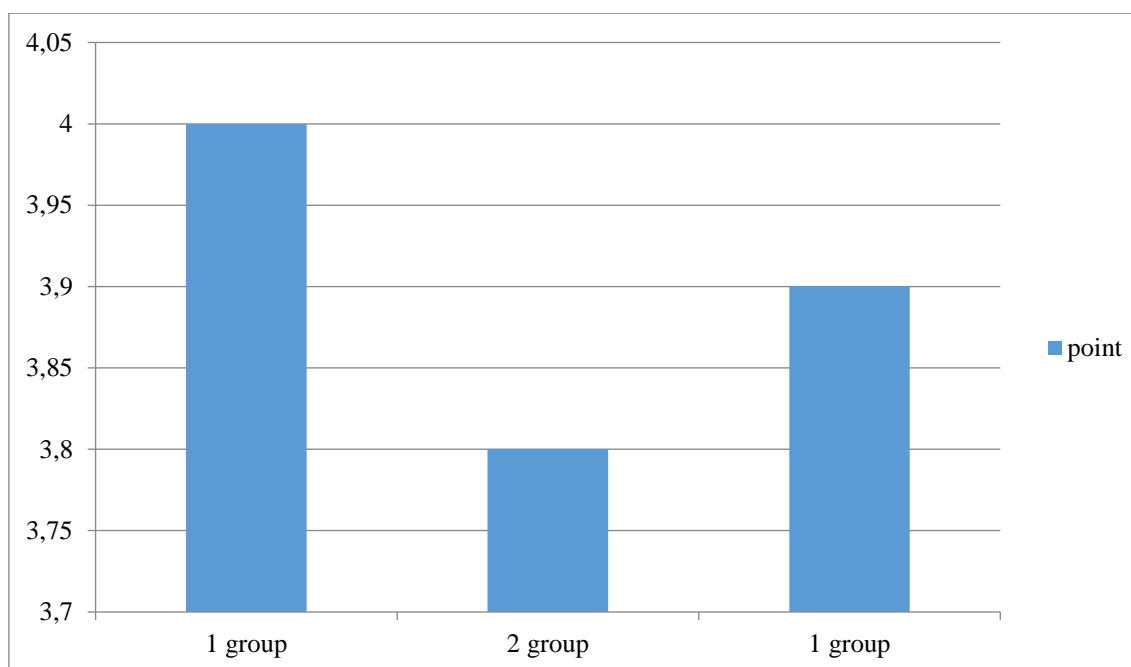


Fig. 1. Student achievement level (2017)

In 2017, we can see that all three groups have an average level of academic performance. The highest of the three groups score was in 1 group of students. The training process did not involve technologies that contribute to the individualization of training. In 2018, information technologies, problem-based learning technologies, interactive technologies, collaborative learning technologies that contributed to individualization of learning, personality-oriented technologies, and discussion technologies were introduced into the training process. Interactive technologies make it possible to create comfortable conditions in the classroom, in which all students interact with each other. Interactive technologies involve the creation of life situations, solving issues based on the analysis of various situations and circumstances that activate the student's activity. When students perform tasks, the teacher carried out periodic consultations, where he covered for students the questions that appeared to them. The teacher conducted small surveys and tests, with the help of which the test of assimilation of the material was determined. So, we were interested in the "weak" and "strong" students. After that, the teacher carried out the division of students into working subgroups to perform joint tasks. Formation of groups was carried out taking into account presence in them both "weak" and

strong " students. In such groups, mutual training takes place, since each student is responsible for the overall result. The teacher monitors their work and timely identify students who do not cope with their tasks. For such students with the help of electronic resources, additional consultations are conducted in non-auditor time. This interaction helps the student identify their mistakes and work better on them. Although the training takes place in groups, the training has a personality-oriented nature, each student is given attention, emphasis is placed on his needs and characteristics. In the course of realization of pedagogical disciplines students study technologies fundamental for their future professional activity. Without their development, the graduate will not be able to carry out his activities at a high level. Students develop projects that are dedicated to any technology available in teaching practice. They develop teaching materials for undergraduate students. Discuss existing issues in the process of implementation of discussion technologies with the consulting role of the teacher. During the discussion, the teacher notes the activity of each student and identifies those who need help.

In 2018, there was also an analysis of the level of student achievement in the number of 80 people. The results are shown in figure 2.

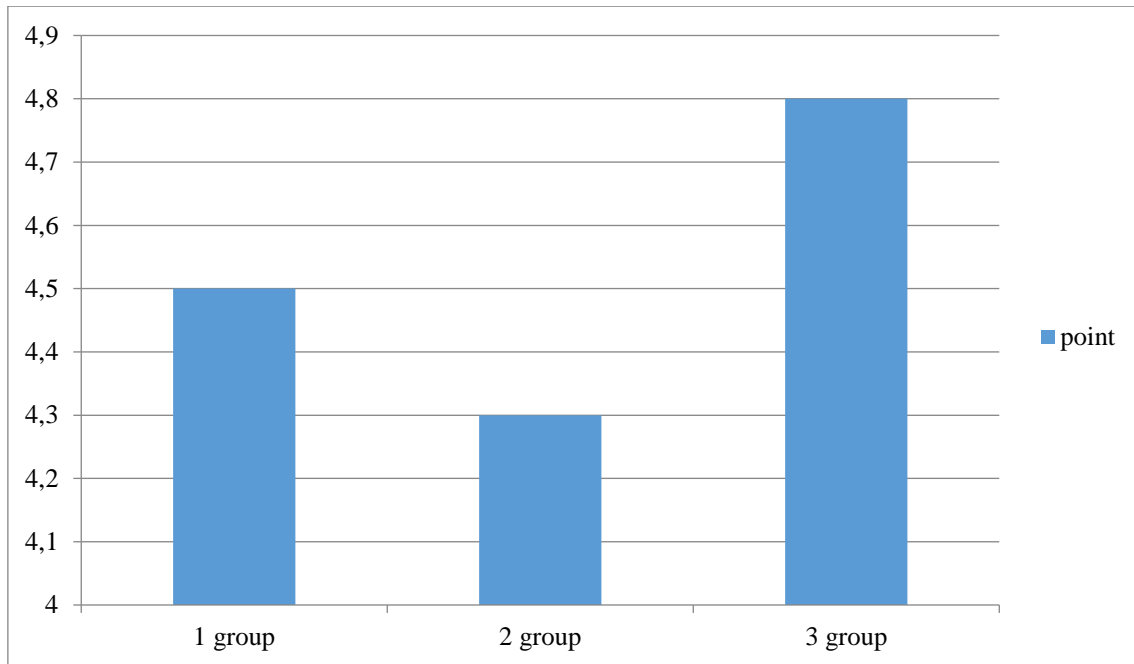


Fig. 2. Student achievement level (2018)

The level of achievement has increased due to the individualization of the learning process. Through the use of innovative educational technologies, students were continuously monitored at a certain level of their freedom. The teacher had the opportunity to timely identify the

problems of students and eliminate them through individual consultations (face-to-face or through the use of electronic means).

Figure 3 shows the results of 2017 and 2018.

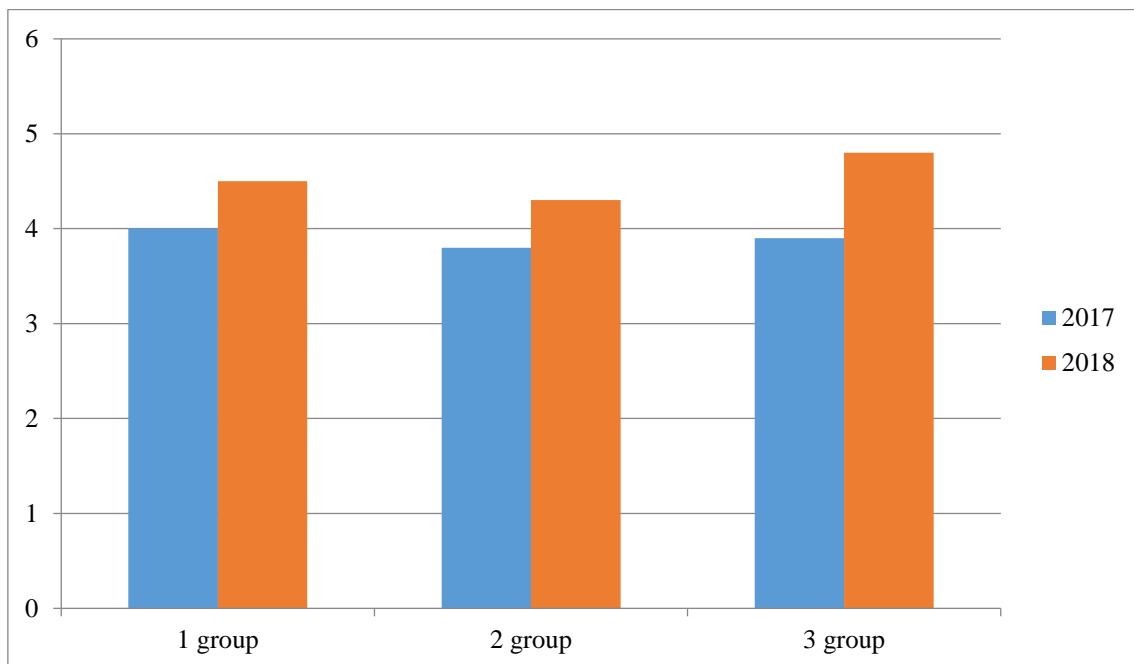


Fig. 3. Student achievement level (2017 -2018)

Academic performance improved in 2018. Students who had previously failed to achieve positive results in the development of the material became more confident in their knowledge. In 2017, the average score of group 1 reached 4, in 2018 it became equal to 4.5. The second group showed results in 2017 at the level of 3.8 points, in 2018 this level became equal to 4.3, in 2017 in the third group – a score of 3.9, in 2018-4.8. Individualization of the learning process with the use of innovative educational technologies has increased the level of student achievement. The received results allow to speak about the importance of educational technology in the process of training of students.

Conclusions

We considered the experience of implementation of educational technologies in the individualization of educational activities of students. Innovative technologies have a powerful potential in shaping the competence of future specialists. Individualization of training takes place in comfortable conditions for the teacher and the student. The teacher has the opportunity to constantly monitor the level of knowledge of the student and make timely adjustments, directing it in the right direction. In the course of training students carried out projects, case-tasks, participated in discussions, solved problem problems. They carried out tasks, uniting in groups. The authors emphasized that, despite the group tasks, the activities of each student were individualized. Information technologies were actively used, which made it possible to adapt the material for students who better perceive information by ear, and for those who prefer to study written materials. Teachers placed video lectures, links to additional sources of materials on electronic courses so that each student could use those sources that are more convenient for him. Students could seek the advice of a teacher at any time and he could adjust their activities on time.

The data obtained in the course of the study allow us to speak about the significant role and necessity of educational technologies in the individualization of the learning process.

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