



**Modern innovative
technologies of
teaching students**



MODERN INNOVATIVE TECHNOLOGIES OF TEACHING STUDENTS

TECNOLOGÍAS INNOVADORAS MODERNAS DE ENSEÑAR A ESTUDIANTES

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abstract

The rapid development of innovative technologies has affected all spheres of modern society, including domestic higher education. The transition of universities to the implementation of the Federal state educational standard requires a significant adjustment of the system of training. This has determined the importance of changing the approaches to the educational-methodical and organizational-technical support of the educational process in higher education. New conditions dictate the need to modernize teaching methods and the transition to innovative technologies in education, significantly improving the quality of teaching, developing students' ability to know a way around non-traditional, non-standard situations, to competently analyze the reality, to make the most favorable decisions, to work with a large flow of information and understand it well, to effectively solve problems. In addition, at the present stage of education development, it is important to search for such techniques and methods of teaching in higher education that would develop students' general cultural and professional competence, develop critical and creative thinking, stimulate cognitive activity and independence, create conditions for student initiative, free exchange of views, opportunities to establish themselves, interact with both the teacher and each other. The article deals with the use of interactive technologies in higher school, which are associated with leading innovations in teaching methods and which involve the stimulation of cognitive activity and independence of students, contribute to the formation of their communication skills, the development of critical thinking, i.e. have great developmental and educational potential. The proposed methods of interactive learning can be used during lectures and seminars.

Keywords: innovative technology, interactive methods, competence-based approach, educational tasks, developing tasks, methods of teaching the Russian language, lecture, seminar, education, University.

El rápido desarrollo de tecnologías innovadoras ha afectado a todas las esferas de la sociedad moderna, incluida la educación superior nacional. La transición de las universidades a la implementación del estándar educativo estatal federal requiere un ajuste significativo del sistema de capacitación. Esto ha determinado la importancia de cambiar los enfoques del apoyo educativo-metódico y organizativo-técnico del proceso educativo en la educación superior. Las nuevas condiciones dictan la necesidad de modernizar los métodos de enseñanza y la transición a tecnologías innovadoras en educación, mejorando significativamente la calidad de la enseñanza, desarrollando la capacidad de los estudiantes para conocer las situaciones no tradicionales y no estándar, para analizar de manera competente la realidad, para tomar las decisiones más favorables, trabajar con un gran flujo de información y comprenderla bien, para resolver problemas de manera efectiva. Además, en la etapa actual del desarrollo educativo, es importante buscar tales técnicas y métodos de enseñanza en la educación superior que desarrollen la competencia cultural y profesional general de los estudiantes, desarrollen el pensamiento crítico y creativo, estimulen la actividad cognitiva y la independencia, creen condiciones para la iniciativa del alumno, libre intercambio de opiniones, oportunidades para establecerse, interactuar tanto con el profesor como entre ellos. El artículo aborda el uso de tecnologías interactivas en la escuela superior, que están asociadas con innovaciones líderes en métodos de enseñanza y que implican la estimulación de la actividad cognitiva y la independencia de los estudiantes, contribuyen a la formación de sus habilidades de comunicación, el desarrollo del pensamiento crítico, es decir, tienen un gran potencial de desarrollo y educación. Los métodos propuestos de aprendizaje interactivo se pueden utilizar durante conferencias y seminarios.

Palabras clave: tecnología innovadora, métodos interactivos, enfoque basado en competencias, tareas educativas, tareas de desarrollo, métodos de enseñanza del idioma ruso, conferencia, seminario, educación, universidad.



Introduction

Urgency of the research. One of the strategic objectives of modern education in university is the formation of innovative thinking of students. To accomplish this task, emphasis has been placed on ensuring the innovative nature of the education system in accordance with the socio-political challenges and innovative nature of economic activity. In this connection, the most important place is given to the introduction of innovative technologies and teaching methods as a resource for improving the quality of education in higher education which will be directly involved in the basic strategy for implementing the state innovation policy in future.

This process is quite complex, covering all aspects of educational work, teaching and methodological, organizational and technical support and involving the revision of the content of education, including the quality of teaching at university. Moreover, at present there is a contradiction between the need to introduce the ideas of innovative technologies of a systemic nature, and the limited need of subjects of the educational process in their creative application in practice; between the content of learning, requiring creative approach, and traditional forms and methods of teaching, which are focused on reproductive (informational and explanatory) methods of cognition; between the product we have and the ever-growing demands of society for the quality of the educational process. One should not forget such an important moment when using innovative forms and methods of teaching, such as social order.

Most often they talk about innovation activity in general educational institutions, undeservingly setting the higher school aside. Therefore, the article is just concerned with the use of interactive technologies in university, with what its scientific novelty, theoretical and practical significance are.

The goal of the research is to propose interactive technologies and methods that have great developmental and learning potential that can be used in the classroom on the Russian language method training with the students of the faculty of elementary education.

Foreign scholars in the field of novel technologies in education Julie A. First Bow, Roy A. Bayer, Ludwig J. Yusing, Guillermo Orozco-Gomez believe that not only systemic but also structural changes are important that accompany the inclusion of innovation techniques in the educational process, including educational innovations should be a creative process, where the teacher as a leading role should act as a mediator and conductor between the participants of the innovation process and innovation

techniques (Furst-Bowe & Bauer, 2007; Bentley, 2006; Issing & Schaumburg, 2001).

Novel technology is focused on the ability to quickly orient oneself to unconventional, non-standard conditions, competently analyze reality, make the most favorable decisions, work with a large flow of information and understand it well, effectively solve emerging problems. Therefore, it is logical to combine the implementation of innovative technology in the training of specialists "with a pragmatic understanding of the goals and objectives of education and training" (Cherkasov, 2012).

Future specialists should have the following competencies of innovation activities: life-learning; capacity for critical thinking and creative reasoning; willingness to work in a team in a highly competitive environment, etc.

Competitiveness depends on a specific set of human qualities, "demanded in a certain period of work, and may include value orientations, hard work, creative attitude, ability to take risks, independence, leadership, the desire for continuous self-development and professional growth, stress tolerance, age, health, appearance, intelligence, energy and many others" (Gostev, & Semenova, 2014).

Methods

Teaching forms and methods in higher educational institutions are carried out with a focus on the competence approach, which consists in the ability to use knowledge, skills and personal qualities in accordance with the objectives of professional activity. To form competencies declared in the Federal State Educational Standards, usual training in which knowledge is acquired from the words of the teacher or from the texts of textbooks seems to be insufficient. Examples of this kind of training are traditional lectures, written by the students in a finished form, as a rule, at dictation of the teacher. Working in this form, students passively listen to the course content, they practically do not communicate with each other, i.e. they are not active, not involved in the process of creative solution of the studied issues, their mental activity and independence are not stimulated.

Competence-based approach involves the use in the educational process along with the traditional forms of teaching the introduction of interactive methods and forms that are associated with leading innovations in teaching methods and which involve the stimulation of cognitive activity and independence, the development of critical thinking, i.e. improve the quality of education in higher education (Semenova, 2018).

The word "интерактивный" - English (*interactive:inter* – between, among; *active* from



act–to act, action), first appeared in sociology. The part of the word “inter” is a prefix that makes it possible to form nouns and adjectives with the meaning “меж”, “между”/“between”, “among” (compare: the terms “interactive lesson” and “Internet” they have a common root “inter”). To interact –to act reciprocally, to have an effect on each other, act, influence each other; interaction - reciprocal action; *interactive*– using the means and devices of computer interaction with the user (interactive graphics). This term is based on the concept of “interaction”. Applying it to the learning process, we mean the interaction of all students, including the teacher, i.e. students interact (verbally and non-verbally) both with the teacher and with each other.

The word-combination “interactive methods” can be interpreted as the methods that allow the students to interact with each other, whereas the combination “interactive learning” is understood as learning, built on active interaction, realized in the form of a educational dialogue, involvement in the process of cognition. The teacher, speaking as a group leader, directs and regulates the activities of students to achieve the objectives of the lesson and creates the conditions for their initiative, free exchange of opinions, and the opportunity to assert themselves (Semenova, 2018).

Interactive methods are a way to achieve a goal by teacher and students interacting in the form of educational, business and role-playing games, various trainings, case studies, creative techniques, clusters, creative projects, try storming, and others that provide pedagogically effective cognitive communication. Many believe that interactive means only information technology, Internet resources, virtual interaction. But this is far from the case. Here it is just necessary to use information technology wisely, select them carefully, and link them with the goals and objectives of the training. As the American businessman of Intel company Craig Barrett said, “miracles are not done by computers but by teachers”.

In the process of training, the students do not write down available knowledge. To achieve the goals, the teacher, by organizing comfortable learning conditions, involves students to independently find the necessary information through interaction and cooperation among themselves. The application of this model of learning is the point of innovation. An interactive form is advisable to conduct not only seminars but also lectures, the structure of which differs significantly from the structure of the traditional one. It is important for the teacher to correctly formulate the goals and objectives of the lesson, to find a strategy for interacting with students, to clearly distribute the role in the group.

University lecture as an active form of

conducting an activity is “an effective form of systematic live contact of the consciousness, feelings, will, and intuition of the teacher with the inner world of the listener” (Novgorod, 2013). Of course, no information technology can replace a lecture, but in modern conditions it should become different, more flexible, with different types and genres of work, so that students acquire new knowledge in continuous contact with each other and with the teacher, i.e. audience activity should be directed to communication within the framework of the target material.

At the present stage of development of education, it is important to find such a form of organization of a lecture, which would not only develop communication skills, but also could interest the students and keep their attention throughout the lecture. It is advisable to arrange the lecture in such a way that the students show not only activity, interest, but also respect and goodwill.

Results

The following types of lectures in an interactive form are highlighted: problem lecture, provocation lecture(with planned errors), lecture for two, a visualization lecture, press conference, a lecture-dialogue, etc.

Let us give a possible way of working at lectures for the students of the “Primary education” on “Methods of Russian Language Teaching”. To do this, consider the various types of lectures in the methodological tools of the teacher of the Russian language.

Problem lecture. The teacher offers a problem situation even before the students acquire new knowledge (in traditional education, knowledge is first given, and then the very examples). The lecture material is presented in the form of a learning problem which fixes a kind of contradiction and ends with the questions. The lecture is built in the form of a dialogue between the teacher and the students. It involves the tasks that do not have a correct decision, controversial points, the students independently find the ways to solve the stated problem, being engaged in joint activity.

As an example, we turn to the topic “Working with a Syllable, Syllabic Division in Primary School”. A problem situation is created at the beginning of the lecture; how to correctly divide the words *добро, ведро, обвал* into syllables: *до-бро, ве-дро, о-бвал* or *доб-ро, вед-ро, об-вал*?

It is already the initial stage that develops a discussion and stimulates an independent search for answers during the lecture. Let us give examples of the questions offered to the students on this topic:

1. You have been introduced to various syllable



theories. What point of view do you stick to and why? Find like-minded people among linguists. Which theory is most recognized in modern Russian linguistics? 2. Do the rules of syllabic division and hyphenation always coincide in the Russian language? Explain it. 3. Give children's typical mistakes in word breaking and in hyphenating. 4. Suggest new, not yet existing, methods of working with a syllable in primary school. 5. Imagine that you are the authors of "Primer" and "Syllabary" textbooks for elementary school. You need to compile teaching materials, including to offer didactic and handouts to help the teacher on the topic of "Syllable".

Students find answers to the questions in group and pair work. The audience is divided into subgroups, in which the raised questions are discussed, and didactic materials are developed. The leader from each group makes a report. At the end the lecture is summarized.

This type of lecture forms the students' ability to think independently, develops their intellectual abilities. The lecturer not only gives the students new material but also encourages them to search for activities, teaches them to reflect on, to reason.

Provocation lecture

The lecturer intentionally includes content-related and methodological mistakes into the lecture. The task that faces the students is to find all the available erroneous information, inaccuracies, incorrect definitions, to put down them into their notebooks, and to make counter-arguments. All the answers are discussed, assessed, summarized at the end of the lecture. A considerable amount of time (approximately 15 minutes) is set aside for the analysis of error at the end of the lecture. Their list is displayed in the conclusion of the lecture on the screen of an interactive whiteboard for students' having full confidence in the teacher. The mistakes found by the students will be further useful to create various problem situations. Finding the erroneous thoughts demands that the student should concentrate on their studies, which enhances their learning activity

Press conference-based lecture. This form of the lecture is close to the format of the press conference. The point of the lecture is as follows: the teacher formulates the topic of the lecture, and the students are to build problem questions and address them to the teacher within two minutes, whereupon, the lecturer classifies the questions and begins the lecture, coherently opening the topic and answering the questions posed (Jenaabadi & Khosropour, 2014).

Discussion. One of the most common forms at the lecture is a question asked by the teacher and

an answer given by a student who wishes to do it. You can do in some other way: to formulate a question to the teacher to ask students the students and give time to discuss it with a neighbor and then allow everyone to express their opinions. So, for example, at a lecture on the methods for the study of the Russian language, the students get the question: "In your opinion, is it advisable, with corrections done carefully and independently, to mark down for the presence of corrections? Justify the answer.

The effectiveness of these methods lies in the ability of all who attend the lecture to actively discuss the proposed problem and find joint solutions. However, the teacher must clearly define the requirements for the answer: you need to give examples to prove your opinion. In such a class, each student should be prepared to take part in mini-discussions, ask questions to the teacher and answer his questions on the topic of the lecture. There is a stirring up of a work at the lectures that are no longer merely a monologue of only the teacher. Such lectures are combined with seminars, which can be more effective than a variant of a traditional, classical lecture.

The main form of organization of the educational process, along with the lecture, is the seminar, which covers the most complex sections of the curriculum. We will single out the following types of seminars of an interactive form: conversation, discussion, conference, educational role-playing game, case-method, research, etc.

Let us give the cases of the inclusion of interactive teaching methods in the structure of a seminar lesson.

The use of one of the innovative methods of problem-based learning, the case-study method, in the educational process of the university allows the students to creatively and critically approach the solution of any issue and contains a problematic situation for discussion, theory, methods of work on the case and criteria for estimating the results of work. The method consists in: understanding the situation, analyzing it and expressing own vision of the solution (Hadzhikurbanova, 2013). During the work on the case, the students are immersed in advance in a topic that, we note, does not have unambiguous solutions.

The activity of the teacher: the publication of the case in the form of creative work which is carried out during extracurricular work and represents research and practice-oriented activity, the development of the methods for using the case in the educational process.

Students should discover the key questions of the case, immerse into its content, identify the main "characters" of the case, select the problems and facts that are important for the analysis and



elicit possible difficulties in solving the problem, choose the most effective methods and ways to find a solution. The very process of discussion involves posing pre-prepared questions to the students and including them into the discussion. The open discussion method (Harvard method) and the group survey method are used in discussing the cases, in which students find a way to analyze a proposed case and identify alternative solutions by creating a presentation. It should be noted that the second method is much simpler, but the Harvard method is more dynamic. Discussion allows for developing independence, critical thinking and requires a creative approach.

Let us give an example of work on the topic “Teaching a Child to Read Using the Whole-Word Method: Myth or Reality?”

Stage 1. Acquaintance with the actual situation for discussion. The students first got acquainted with various methods of teaching to Russian literacy: literal, syllable, sound, whole words, with Shaposhnikov’s method of lively sounds, etc. The students are asked to discuss the following situation: a child is shown a word written in large red print on the card several times a day for 5-10 seconds and it is pronounced loudly. The work begins with five words. For 2-3 months, children memorize 150 words without analyzing their sound-letter composition and without memorizing letters, and the children should not repeat what they have heard. The training starts with 15 cards with the simplest concepts written in them: *мама, nana, (mother, father)* etc. The number of words increases, the ones already learned are out of the set. Then the child begins to study phrases: color + object, size + object, for example: *синий шар (a blue ball), а маленький дом (a small house), большая лампа (a large lamp)*.

Stage 2. Analysis of the situation. It takes place in the form of an open discussion. The students get the following questions: Do you think it is possible to teach a child this method of reading? This method is popular in America. Can it be applied in Russia? What are the consequences of this method? Does the use of the whole-word method allow you to proceed to meaningful reading? Does this method develop useful strategies for meaningful reading? Does it eliminate the persistent mistakes of children when reading? Is it possible to achieve reading fluency in a short time? Can this method be used to teach reading to young children, children with autism and deaf preschoolers?

Stage 3. Independent work on the case. The students work out a plan of actions using various sources of information. Each of them independently performs tasks.

Stage 4. Work on the case in groups. Each group (consisting of 5-6 people) thinks over the plan and method of work, develops didactic

material for letter techniques, as well as for sound work; prepares one joint work using the previous tasks.

Stage 5. Defense of work results. Presentation of a group plan of actions and defense of teamwork. Justification of the method of work and their own point of view.

Stage 6. Summing up the lessons.

The technique “Brainstorming”. This method is based on obtaining new knowledge as a result of the creative collaboration of all members of the group. The goal of the method is to generate ideas.

The students are divided into groups. All participants, moving in a circle, put forward ideas, which subsequently are put on the prospects. Rating the participants in brainstorming includes knowledge of the problem, the ability to defend their position, respect for opponents. We will offer the examples of discussion questions on one of the important topics of the course on the Russian language teaching “Teaching Children to Read”: 1. Is it possible to teach a child to read earlier than to walk? 2. What, from your point of view, is the most effective method of teaching children to read: whole-words or syllable? Justify the answer. 3. How to determine the readiness of the child to read? 4. What is the optimal age for teaching a child to read? Justify your point of view.

The technique “Correct and Incorrect Statements” on the topic “Gender of Nouns”. Students independently formulate statements on the topic being studied: 1. The gender of a noun is determined by the pronoun. 2. Masculine nouns, as a rule, have a zero ending in the nominative singular.

The technique “The Basket of Ideas” on the topic “Methods of Work on Stress”. A drawing of the basket is posted on the blackboard in the classroom. The students throw all information on this topic into the basket, including erroneous information, which is corrected in the process of studying the topic. As an example, we will cite the students’ judgments: 1. Stress - highlighting one of the syllables of a word using certain phonetic means. 2. In Russian, stress is put using three phonetic means: the length of the stressed syllable, the strength of the voice, and the quality of the stressed vowel. 3. The technique called “Call (Hail) a Word” is based on the greater strength and duration of the stressed syllable: *маааайка, стенааааа*.

The technique “Thin and Thick Questions” on the topic “Learning the Name of an Adjective in Primary School”. Thin questions – the questions that are well-defined, thick questions – the problematic questions that require different aspects of the consideration of the topic.

The examples of thin questions: 1. What does an adjective mean? 2. What are adjective groups



by meaning? 3. How to distinguish an adjective from a participle?

The examples of thick questions: 1. Give three explanations, why do we need adjectives in speech? 2. Explain why the adjective cannot replace the participle? 3. Suppose what happens if adjectives disappear from speech?

The technique "Correct and Incorrect Statements". The students begin their reasoning with the words: "Is it correct". Let us offer examples of students' reasoning on the topic "Learning the Adjective in Primary School": 1. Is it true that the adjective that depends on the noun takes not only the gender of the noun but also the number? 2. Is it true that all adjectives can be in the plural form? 3. Is it true that when declining, adjectives have their case questions that differ from those of nouns?

The listed techniques form the students' ability to cooperate and interact, develop critical thinking. All seminars are ended by making a decision on the issue being studied and analyzing the contribution of each to the results obtained.

Conclusion

The use of innovative methods in the educational process of university is a necessary condition for the preparation of highly qualified specialists. Modern requirements involve the use of such technologies and forms of implementation of educational work that will allow students to develop key competences, to form the necessary skills for the future profession. It is important for a teacher to be not only pedagogically literate, but also to be proficient in a large number of innovative technologies. The interactive methods presented in the article during lectures and seminars do not cover the whole arsenal of innovative technologies of teaching in higher education. Teachers who think creatively are constantly looking for modern teaching methods that significantly improve the quality of education and, consequently, make it possible to effectively decide a whole range of educational and developmental tasks. However, we should not forget that within the university framework, profound innovations will be prepared on the condition that we proceed from the image of a holistic person who has "instrumental knowledge and skills combined with a broad scientific picture of the world and an understanding of the meaning of his being and science" (Zharov, 2018).

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