Interactive Technologies as a Means to Improve the Efficiency and Quality of the Educational Process

[1]Shakhnoza Kulieva, [2]Khusniddin Juraev, [3]Makhbuba Karimova,[4]Mukhayo Azimova, [5]NargizaJ uraeva

Abstract--The article based on analyzing the efficiency of interactive technologies as a means to improve the quality of the educational process. As we know, today the use of interactive methods in the learning process is widely introduced. This requires the humanization, democratization, and liberalization of the learning process. In short, the center of the learning process should be the learner's personality and needs. The learning process needs to be focused on needs of learners. Personalized education serves as a driving force for the organization of student learning activities that fulfill their interests, needs, and wishes. Interactive methods aim to achieve high results in a short period of time, without exerting considerable and physical effort. Teaching theoretical knowledge to the learner, acquiring skills and competencies in specific activities, developing moral qualities, and controlling and evaluating the student's knowledge requires a great deal of skill and agility.

One of the tasks of education at the present stage is to increase the effectiveness of the lesson as a means of improving the quality of education. At the same time, it is very important to determine the main provisions in the quality assessment and identify the problems that impede this movement. The word "efficiency" in translation means - the result of any action with the least expenditure of time and effort. A lesson is a key component of education.

Each teacher has a specific work style. Most people prefer to explain the material while sitting at their desk or standing at the pulpit; it's easier and more comfortable for someone to move around the audience

The learner will be given the opportunity to engage in creative thinking through search, finding, and processing of textbooks, information resource centers, the Internet, various other sources, without the knowledge being readily available. It gives the teacher and the student a constant creative search, continuous development and self-improvement.

Key words--interactive method, self-improvement, educational process, competence, education, activity, learner, skills, interactive teaching.

I. INTRODUCTION

At present, modern methods of teaching are widely used in the educational process. The use of modern teaching methods can lead to greater effectiveness in teaching. It is advisable to choose these techniques based on

---

[1]Bukhara State Universitety Uzbekistan kuliyevashakhnoza80@gmail.com
[2]Bukhara State Universitety Uzbekistan khusniddinjuraev82@gmail.com
[3]Bukhara State Universitety Uzbekistan karimovamakhbuba71@gmail.com
[4]Bukhara State Universitety Uzbekistan Muhayyoo1115@gmail.com
[5]Bukhara State Universitety Uzbekistan nargizajuraeva4790@gmail.com

the didactic function of each lesson. Enriching the traditional form of teaching with a variety of methods that enhance the learner's performance can lead to an increase in the level of learning. One of the most important requirements for the organization of modern education is to achieve high results in a short period of time without exerting excessive psychological and physical effort.

II. MATERIALS AND METHODS

Providing students with theoretical knowledge and skills within a short period of time, as well as monitoring students' performance, assessing their knowledge, skills and abilities requires a new approach to the educational process [3].Those methods that provide the basis for a great deal of experience in the use of modern pedagogical technologies that guarantee the effectiveness of the educational process are called interactive methods. Interactive teaching methods are among the most widely usedin all types of educational institutions. However, there are many types of interactive teaching methods that are available for the purpose of carrying out almost all of the educational process[9]. In practice, they can be used appropriately for a specific purpose. This situation has led to the problem of choosing the right methods of interactive learning for a particular purpose.

For this purpose, the organization of the classroom process, the learner's interest in the students, their continued involvement in the learning process, the breakdown of the material into small pieces, and the discovery of their contents use techniques such as attack, working in small groups, discussion, problem-solving, referral text, project, role-playing, and encouraging learners to carry out practical exercises independently.

An interactive method is to work together to solve an activity or problem through dialogue, discussion, or discussion. The advantage of this method is that the whole activity prepares students for independent thinking and prepares students for independent living [2].

2.1. Selection of interactive teaching methods

Selection of interactive teaching methods takes into account educational objectives, number and opportunities of learners, educational facilities of the institution, duration of education, teaching skills of the teacher and many others.
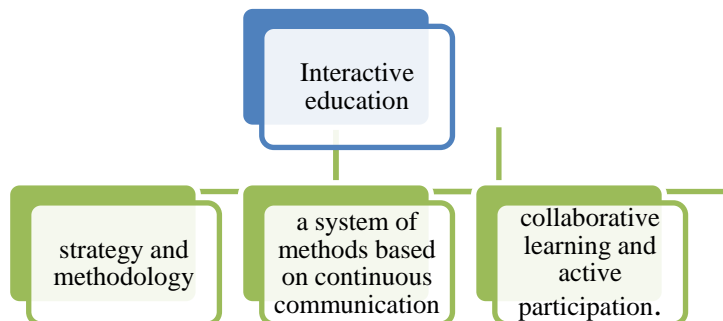

Figure 1: Peculiar features of interactive education

Interactive methods are those that are at the center of the learning process that encourage learners to think and act independently. When these methods are used, the educator encourages the student to actively participate. The learner is involved throughout the process. The benefits of a student-centered approach are:

- better learning outcomes;
- high motivation of the learner;
- the emphasis on previously acquired knowledge;
- alignment of the learning process with the goals and needs of the student;
- support of the student's initiative and responsibility;
- learning through action;
- creation of conditions for bilateral feedback.

Thus, the use of interactive methods in teaching subjects has a distinctive feature. Careful study and application of each interactive method used in educational practice can increase student thinking and have a positive impact on finding the right solution to the problem. Increases student creativity and activity. Analyzing various theoretical and practical problems through interactive methods can help students to broaden and deepen their knowledge, skills and abilities.

III. DISCUSSIONS

From the above, it is necessary to properly analyze and classify the methods of interactive learning. The following is a general overview of this issue.

The classification of these techniques can be subdivided into interactive methods, interactive learning strategies, and interactive graphic organizers. Currently, the most popular methods of interactive learning are:

Interactive methods: "Case-study", "Blist-questioning", "Modeling", "Creative work", "Problem-based learning" and others.

Strategies for interactive learning: "Brainstorming", "Boomerang", "Gallery", "Zig-zag", "Icebreaker", "Rotation", "Round snow", etc. The group approach to interactive learning strategies from the content of interactive learning methods is based on comparisons to the strategic orientation of meaning. In fact, both of these strategies relate to interactive teaching methods, with no differences between them [5].

Interactive graphic organizers: "Fish skeleton", "BBB", "Conceptual table", "Venn diagram", "T-table", "Insert", "Cluster", "Why?", Etc. When separating interactive graphic organizers, the main points of these sessions are based on the fact that they are written in different graphical forms. In fact, working with these graphic organizers is more and more related to interactive teaching methods, with no differences between them.

Interactive teaching methods are often used in conjunction with various training technologies. Applying these techniques will increase the activity of the participants and improve the quality of education.

The main criteria for interactive learning are: informal discussions, the ability to freely expressing learning material, the number of lectures, but the large number of seminars, the opportunities for student initiative, small

group, teamwork, and other techniques for working as a team, which play an important role in improving the effectiveness of educational work.

As a result of applying interactive methods, students develop and develop the skills of independent thinking, analysis, drawing conclusions, expressing their own opinions, supporting communication.

Table 1 Comparative analyses of student's activities during the lesson

Traditional lesson	Interactive lesson
Learns only from teacher	Learns from each other
Passive listener	Active doer
Learns from ready experiment	Learns from debating and experiments
Afraid of making mistakes	Learns from own mistakes

The following conclusions can be drawn from the abovementioned analysis in the table 1:

1. While teaching subjects according to the curriculum, it is important to consider which topics should be interactive. This includes the use of interactive or traditional types of training to ensure that the objectives of the training are fully achieved.
2. it is important to ensure that students have a basic understanding of the subject and the basics before the new session.
3. It is important to take into account that during the interactive session, students spend more time than traditional activities for independent work.

Interactive teaching methods are implemented by each teacher to the extent available to them and to their own abilities.

IV. RESULTS

Based on some of the experiences of using interactive lessons, we can point to the factors that contribute to improving the quality and effectiveness of these sessions. They can be conventionally referred to as organizational, pedagogical, scientific and methodological factors related to teachers, students, and educational tools.

Interactive teaching encourages students to search for new ideas in practical and theoretical activities, to defend their own ideas, to prove them, to respect and critique others' ideas, to develop the quality of communication and debate; those techniques teach their independent development, practical creativity.

Interactive teaching enables professors to use interactive pedagogy based on the integration of science, production and continuous education into the national model of education, clearly defining the modern educational, creative, practical and educational functions of their subjects. They must fulfill their honorable duties of training highly qualified specialists using the rhinoceros.

Professors and teachers must be able to use advanced pedagogical technologies on the Internet, distance learning, and the development of advanced teaching technologies based on information technology.

Interactive learning allows us to develop the creative side of the personality. The essence of interactive teaching methods is to focus on the mobilization of cognitive forces and aspirations of students, to awaken an independent interest in cognition, to establish their own ways of working, to develop the ability to concentrate on the creative process and enjoy it. Interactive methods appeal to the subjective experience of students and help them in the learning process to master their ways of discovering social experience. The mandatory conditions for the organization of interactive learning include:

- rusting relationship between the student and the student;
- cooperation in the process of communication between the student and the students learning between themselves;
- relying on the personal experience of students;
- a variety of forms and methods of presenting information, forms of student activity, their mobility;
- the inclusion of external and internal motivation of activities, as well as mutual motivation of students. [4]

Some authors distinguish between three interactive forms of interaction: interpersonal interactivity (interpersonal interactivity); informational interactivity and human-computer interaction in the information and communication environment [6].

The term "interpersonal interactivity" means bi-directional interaction between people, during which the recipient and sender of messages can switch places and, being in an active position and interest, can complete a successful act of communication. "Information interactivity" is aimed at obtaining information and posting any information, includes the use of Internet resources, searching for data by keywords and other forms of interaction. "Human-computer interactivity" or human-computer interaction is an area related to the interaction between the user and the computer hardware and software, for example, through such devices and means of interaction as a mouse, keyboard, graphical interface, recognition of voice commands and others [8].

Due to the requirements that are imposed on the learning process, in recent years the most popular have been active and interactive models, in which students are more involved in the class.

Many teachers often equate active and interactive teaching methods. However, interactive teaching methods are a modern treatment of active ones. In the framework of active teaching methods, students actively interact with each other, while the teacher plays the role of an "assistant" that controls the course of the lesson. Interactive teaching methods are characterized by an even greater degree of activity, since students interact not only with each other, but also with the teacher. In contrast to active teaching methods, the forms of training within the framework of interactive methods include not only interpersonal interaction, but also training using computer technologies.

The widespread use of computers, multimedia technology and the Internet has had an impact on the education system, causing significant changes in the content and methods of teaching foreign languages. The use of ICT in the educational process has several advantages: additional opportunities are created for the development of

students' creative skills, and interest in scientific activity is inculcated. The use of ICT allows students to work with educational materials in various ways: students choose the method of studying the material themselves, using the interactive capabilities of technical means.

V. CONCLUSION

So, interactive methods can be characterized as a modern interpretation of active teaching methods, which is possible due to the fact that interactive methods combine the main characteristics and principles of active methods in combination with a wider interaction of students with each other and with the teacher, as well as thanks to the introduction of the latest computer technologies in the educational process as well as, the rapid spread of mobile devices, makes positive changes to the educational process.

REFERENCES

1. Artamonova L.A. Innovations in teaching English to students of non-linguistic universities / L.A. Artamonova, M.V. Arkhipova, E.V. Ganyushkina, L.K. Delyagina, M.V. Zolotova, T.V. Martyanova- N. Novgorod: NSU named after N.I. Lobachevsky. 2012
2. Kanagavalli s, ajith kumar m, sarath kumar m, selva murugan r, ram kumar m. "plc based automatic cooling of power transformer." international journal of communication and computer technologies 7 (2019), 38-41. Doi:10.31838/ijccts/07.sp01.10
3. Arutyunov Yu.S. et al. On the classification of active teaching methods// V Interdepartmental school-seminar on intensive teaching methods - Riga. 1983
4. Azizkhodjaeva N.N. Pedagogical technology and pedagogical skills. -T.: TSPU. 2006
5. Subramani Parasuraman , Lim Ee Wen. "Animal Model for Obesity-An Overview." Systematic Reviews in Pharmacy 6.1 (2015), 9-12. Print. doi:10.5530/srp.2015.1.3
6. Dvulichanskaya N.N. Interactive teaching methods as a means of forming key competencies / N.N. Dvulichanskaya - M.: Science and Education. 2011.
7. Galskova N.D. Modern methods of teaching foreign languages. M.: AR KTI. 2001. P. 141.
8. Goroshko E.I. Presentation "Internet technologies in the educational process at the university." 2009
9. Ochilov M. New pedagogical technologies. - Against. "Nasaf" 2000. 80 p.
10. Raymond r. Tjandrawinata (2016) dietary polyamines for modulation of aging process in the geriatric population. Journal of Critical Reviews, 3 (3), 27-30.
11. Potapova N.V. Interactive teaching methods in English classes as a means of developing students' communicative competence. Methodical manual for teachers of a foreign language / N.V. Potapova – Kemerovo. 2009
12. Sayidahmedov N. New pedagogical technologies. -T.: "Finance" Publishing House. 2003. P.171
13. Tolipov U., Usmanbayeva M. Pedagogical technology: theory and practice. -T .: "Science" 2005.
14. Vidhya,K., &Saravanan,N. (2018). Enhanced Automatically Mining Facets for Queries and Clustering with Side Information Model. *Bonfring International Journal of Software Engineering and Soft Computing,* 8(2), 1-6.
15. Aodsup, K., & Kulworawanichpong, T. (2014).FDTD Method for Lightning Surge Propagation of Power Transmission Lines. *The SIJ Transactions on Computer Networks & Communication Engineering (CNCE),* 2(4), 7-11.
16. Al-Hiyali, M.I., Ishak, A.J., Harun, H., Ahmad, S.A., Wan Sulaiman, W.A. A review in modification food-intake behavior by brain stimulation: Excess weight cases (2018) NeuroQuantology, 16 (12), pp. 86-97.
17. Türkpençe, D. Disentanglement dynamics of a data driven quantum neural network (2018) NeuroQuantology, 16 (10), pp. 14-19.