



IN TEACHING TECHNOLOGY TEACHER'S CREATIVE APPROACH

Shomirzaev Maxmatmurod Xuramovich

Associate Professor of Technological Education,
Termez State University,
Doctor of Pedagogical Sciences (DSc)
E-mail: shomirzaevm@tersu.uz

| Article history: | Abstract: |
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| Received: 10 th January 2022 Accepted: 10 th February 2022 Published: 19 th March 2022 | <i>The article discusses some aspects of the organization of new pedagogical technologies in the teaching of technology in general secondary schools, including the effectiveness of the use of interactive methods in the teaching of technology.</i> |

Keywords: Technology, Student, Teaching, National Education, Integrated Course, Interactive Lesson, Pedagogical Technology, Educational Technology, Teaching Technology, Technological Process, Technological Operation, Technological Map, Essence, Content, Interest, Profession, Profession, Result.

The term technology, its types and applications. It is known that "technology" is derived from the Greek word "tekhne", which means skill, art and "logos" - the word, doctrine, science. The term has been used in science since the 1870s in connection with the development of handicrafts and technology. Technology is divided into technical (production) and humanitarian (educational) technologies. What do the terms "Technology", "Technical Technology", and "Pedagogical Technology" mean?

Technical technology is a unit of ways and means of obtaining, processing or recycling of raw materials, semi-finished products or products, ie it is a technology of production, which consists of the technology of processing and processing of labor objects. process-descriptive aspect). In other words, the ways described above are the science that develops and perfects methods.

The task of technology as a science is to identify and apply the laws of efficient, cost-effective production processes that require the least use of material resources and time (scientific aspect).

The process itself consists of technical control over the extraction, extraction, processing, processing, transportation, storage, storage and production (process-motion aspect of technology).

The following terms are derived from the word "technology" are used in production.

Technological process - a unit of technological operations that produces a single process in the processing of manufactured products.

Technological operation is a part of the process, which is performed by the worker at his place of work, in the form of a final movement.

Technological map - a document that describes the sequence of technological operations in the development of a particular product.

Technological regime - is a procedure that determines the implementation of technological operations, the time and conditions of operations performed in the development of a particular product.

"Pedagogical technology", which is part of the humanities, is an educational process that uses pedagogical technologies in pedagogical theory and practice, shaping the personality, developing its qualities and characteristics, and implementing didactic technologies.

To improve the national education system, a new type of curriculum, syllabus and educational standards have been created. But in order to fully implement them, it is necessary to bring new pedagogical experiences, technologies into the content of education, to create conditions for their introduction. Consequently, the class-lesson method of traditional teaching that is now widely used has its own advantages and disadvantages. In the lectures, stories, conversations, and similar methods used, the idea that the teacher gives is often absorbed one-sidedly by the student. In this case, feedback between teacher and student is desirable will not happen. If the teacher has a skillful and conversational culture, is able to express his / her ideas clearly, simply and clearly - this method can also achieve the goal. Of course, not all educators have this ability. So, the main guarantee of success is the active involvement of all students in the teaching-learning process.

Classes by giving him the signs of perfection, precision, orderliness, orderliness, fluency, calmness of the educational process
The search for ways to increase efficiency and optimization has always been carried out in the field of



pedagogy. In the process of learning, Jan Amos Comenius tried to find "time, subjects and methods" in such a masterfully distributed lesson and its ideal form (variant). Then, in Comenius's view, "everything is as pleasant and joyful as a watch with stones of the right weight, and as endless as the construction of a machine of this kind, and, in the end, so skillful." moves forward with the accuracy that can be achieved in a created instrument. " In modern pedagogy, too, such models of education, approaches to it are being developed, which allow to give education a character that guarantees the achievement of educational goals under certain conditions and within a certain time, as in the production-technological process.

The first research on the technological approach to teaching, that is, the technological-repetitive nature of the learning process, as well as the process of production, was conducted by American scientists in the early 60s of the twentieth century. In particular, the term "pedagogical technology" was first used by the American pedagogical scientist Skinner. As a result of studying and analyzing the pedagogical literature, it became clear that the reason for the emergence of this phrase in the education system is:

1) the principles of didactics are not recognized in all countries (especially in the United States);

2) its rules are not very constructive and lag behind the requirements of the time;

3) Techniques, programmed into the educational process in the 60s of XX century the introduction of training machines, and so on.

This means that the flow of pedagogical technology was born in the United States and in the 70s and 80s of the twentieth century covered almost all developed countries and was also approved by UNESCO.

The idea of technologicalization of education is based on the full management of the educational process in order to increase the efficiency of the educational process, to ensure that students achieve the projected learning outcomes in the given conditions and in the allotted time. The essence of such an approach is to systematize the educational process, to maximize its formation by breaking it down into clearly defined and detailed elements in detail.

The subject of pedagogical technologies is from the presentation of the conceptual foundations of the education system, setting goals, formulating results, selection and structuring of teaching materials, from the choice of educational model to their implementation. from design to evaluation of the level of optimality and efficiency. At that time, the essence

of pedagogical technology was to abandon the traditional method of oral presentation of the teacher, to teach on the basis of a test machine (computer), to encourage students to learn more independently, but now the meaning of the phrase has expanded.

The emergence of the concept of training technology for foreign professionals. Believe that the history of its arrival and development consists of three stages. In the first stage, the teaching process was conducted only by the teacher and there were no tools to help him. In the words of N.F. Talizina, "human experience has served as a learning technology." The second stage is the publication of books and manuals. After the introduction of the textbook, there was a radical change in the content of teaching technology: in addition to textbooks and didactic materials created for teachers, students and pupils, various technical means, modern computers (teaching machines) were added. In the future, under the influence of the revolution of scientific and technological progress, it is planned to further improve the technology of teaching in higher education.

There are different interpretations of the term pedagogical technology in the literature and in the press. At this point, we consider the following definitions to be appropriate. Professor Holbright describes pedagogical technology as follows: "Teaching technology is the systematic application of scientific and other knowledge to solve practical problems." "Teaching technology is the use of the achievements of psychology in pedagogical practice," says Skinner, emphasizing the essence of the technological approach to teaching, which is based on human psychology.

The main aspects of the organization of teaching in a technological way, which are radically different from traditional methods, are:

1. Separate the identified learning objectives for each topic (learning unit), create test assignments accordingly.

2. Transfer the organization of the learning process to independent learning, leaving the teacher with the functions of referral and counseling.

3. Organize the teaching process in a repetitive way, ensuring full mastery of each unit by all pupils and students.

4. To teach students to perform actions that can be observed from the outside in relation to the science (specialty).

5. Make adjustments to the purpose and content of the learning process depending on the learning outcomes, etc.



The technological approach to teaching, developed in the United States, is now successfully used in a number of countries around the world (England, France, Japan, Korea, Taiwan, Malaysia, etc.). This idea has also been endorsed by UNESCO and recommended for implementation in all countries.

The introduction of the technological nature of the educational process in the theory and practice of education began in the 50s of the twentieth century. These are reflected in the creation of a set of technical tools for traditional teaching. At present, pedagogical technology is not simply considered as "research in the use of technical means of teaching or computers; it is research aimed at identifying and optimizing the principles of the educational process through the analysis and application of factors that increase the effectiveness of teaching, as well as through the evaluation of the methods used.

According to VP Bespalko, the transfer of all educational work to the path of pedagogical technology means a sharp shift from the voluntary in the construction and implementation of teaching practice, the pedagogical process to the systematic justification of each element and stage, the pursuit of an objectively diagnosed end result.

At present, such terms as "pedagogical technology", "educational technology", "teaching technology" are widely used in pedagogical science and practice. Along with their common similarities, there are also specific differences in understanding them. In particular, pedagogical technology is a systematic category that defines the technology of the educational process as a whole. Educational technology, teaching technology, etc. can be used as synonyms to define all other concepts of technology. Teaching technology, first, it refers to the process action aspect of pedagogical technology. It is a technological process of development and implementation of an educational model that combines the orderly unity of methods and tools (technological operations) that ensure the guaranteed achievement of the desired results in a given time and the implementation of certain educational processes; second, it represents a process-descriptive aspect of pedagogical technology. This is a statement of the implementation of the project of both pedagogical and educational activities to achieve this goal and achieve the desired result in the future (technological map).

Educational technology is used to define the scientific aspect of pedagogical technology. This (subject) is "a systematic way of creating, applying and defining all processes of teaching and learning,

taking into account the technical and human resources and their cooperation, which sets the task of optimizing the forms of education."

What are the similarities and differences between the concepts of "pedagogical system", "educational technology", "teaching technology" and "subject methodology"?

A comparative description of these concepts is as follows: Pedagogical system (PT) is a specific whole consisting of a set of interrelated means, methods, processes necessary for targeted and predetermined pedagogical impact on the formation of a person with defined qualities. PT components: 1. Teaching. 2. Learner. 3. Purposeful. 4. Result. 5. Content of educational information. 6. Pedagogical technology (methods, ways, means and forms of management). 7. Control analytical component.

Educational technology (ET) is a systematic way of creating, applying and defining the processes of teaching and learning, taking into account the cooperation of technical and human resources, as well as the task of optimizing the forms of education.

TT structure: 1. Conceptual framework. 2. Content goals (results, training information). 3. Process part (methods, ways, means, forms of teaching, information and management).

Teaching technology (TT) is a specific (specific) educational goal

the process of development and implementation of the training model and its description (technological map), which guarantees the implementation and achievement of the desired results in the future. OT structure: methods, ways, tools, learning information and forms of management.

Subject Methodology (PM) is a field of pedagogical science that answers the following questions: What should be taught? How to teach?

How to read? The content of the PM is to define the tasks and content of teaching this subject and to implement it.

From the above, it can be seen that educational technology is a pedagogical system component. The process part is an important element of educational technology.

In contrast to the subject methodology of teaching, the technology is designed as follows:

- focuses on pre-conceived specific pedagogical activities aimed at achieving the desired results, depending on the circumstances;
- its effectiveness, the restoration of results, is characterized by the fact that the word "if" is not used in most cases, if there is a sufficient number of



talented teachers and talented learners, teaching aids, including information technology, etc.;

- there can be no alternatives, the main task of which is to ensure the achievement of the planned result;
- The course is aimed at ensuring that learners achieve academic success at the expense of their own activities, as opposed to methodological development for educators;
- There should be nothing superfluous in technology: changing the ways, means and means of assimilation is a sign of a lack of technology.
- It should be noted that in the educational process, the pedagogue-technologist does not conduct a separate experiment, he works on the basis of a predicted result; relies only on well-known, tested, grounded, and unsuspecting information.
- The following are the differences and signs between traditional teaching and teaching based on modern technology

The main features (conceptual foundations) of traditional teaching are coercive, instructive in the approach to the learner, reproductive in most ways, authoritarian in the strict organization of teaching, based on pedagogy that does not provide students' independence and initiative. Teaching is aimed at the average learner, who is somehow able to master and retrieve knowledge. Reading is a function of memory, and teaching is a leading activity. Superficial awareness of the person of the concept and information, not fully understanding their essence and h. Teaching process: teacher - textbook - learner.

The main features (conceptual foundations) of teaching based on modern technologies are based on education aimed at shaping the individual. The learner is a key figure in the learning process.

The humanism and democratization of relations, the renunciation of coercion to study. Differentiated approach to teaching: taking into account the general level of intellectual development of the learner and his mastery of the subject, the subject, his abilities and qualities. Learning activity is the independent acquisition of knowledge and the application of knowledge acquired by the learner: problematic in nature, inquisitive, creative. The integrity of education and upbringing is focused on the development of individual culture. A new process of teaching: learner - textbook - educator.

Analysis of this data suggests that the new pedagogical modern technology-based education is a concept from traditional education

The basics, methods and tools of education, forms of its organization and results differ significantly with the level of knowledge, skills and abilities of students. It is a fact that the introduction of modern pedagogical technologies does not require proof that it helps to improve the learning process. This, in turn, is the public education of independent Uzbekistan accelerates positive changes in the system. Summing up the essence of modern pedagogical technology, we can say the following: The essence of pedagogical technology is the pre-design of the teaching process as a whole and complete.

In a well-designed technological process, the chain of pedagogical and course work actions, operations and communications has the form of expected results, strictly in accordance with the set goals is formed. The step-by-step design and sequencing of technological operations must be re-established by any learner on the one hand, and on the other hand must ensure that the planned results are achieved by all learners, while the technological process is mutually reinforcing. provides for the optimal implementation of the human factor and technical capabilities, the use of dialogue and communication on a contractual basis, taking into account the activities related to it, the principles of differentiation and their individuality. That is:

∞ The main part of pedagogical technology is the implementation of specific criteria and indicators of performance evaluation with equal opportunities, and thus the process of diagnosis;

∞ The process of making corrections should focus on changing the way the learning process is applied to the learner, not on the learner's mistakes.

So, one of the most advanced methods of teaching today is interactive methods of teaching, which activate the learning process, increase the responsibility for reading, encourage teachers and students to be creative, independent and creative.

The use of interactive teaching methods brings enthusiasm and enthusiasm to the educational work in the school. Skilled, creative teachers use interactive teaching methods in schools and achieve high results in educational work. Thanks to their creative research and efforts, modern teaching theory, methodological bases, technologies have been created in modern teaching operations and are used in educational institutions.

Interactive lessons are conditionally divided into the following groups according to their content, purpose and style:



1. Competition, game-style lessons: competition, tournament, relay, link-whistle, everyday life, duel, day, practice, role-playing, story games, crossword puzzles, quizzes and more.

2. Lessons that make up the game material in a non-traditional way: knowledge lesson, open-minded lesson, lesson-block, lesson-doubler, etc.

3. Lessons in social practice in their genre, content, forms and style: research, invention, study and interpretation of primary sources, intellectual attack, interviews, reports, reviews, etc.

4. Lessons reminiscent of formal dealings: press conference, auction, rally, debate, debate (regular), panorama, television, teleconference, report, film, "live newspaper", oral journal.

5. Lessons based on fantasy: fairy-tale-lesson, lesson-surprise, lesson of Ibn Khattab's gift.

6. Lessons based on the simulation activities of the organization, institutions: court, investigation, tribunal, circus, patent, bureau, scientific council.

7. Lessons based on simulation activities for public and cultural events: field trip, trip to the past, literary tour, literary hotel, interview, report.

8. Classes based on traditional extracurricular activities: discussion of jokes and jokes, discussion or poetry lessons, fairy tales, performance-lessons, concert-lessons, analysis of works of art, scholarly club, "Investigation is led by scholars", etc.

9. Integrated lesson.

10. Lessons with modified traditional methods of lesson construction: lesson-consultation, lesson-practicum, lesson-seminar, pair of questions, express, assessment defense, TV lesson without television, etc.

The purpose of the interactive lessons is to:

→ Conducting lessons taking into account the individual characteristics of each student;

→ to allow each student to study topics independently and creatively, to express their ideas freely and fully in the lessons;

→ Improving the culture of communication and other human qualities in students;

→ Conducting classes in a business environment is a time-saver.

In general, the above goal can be achieved if the interactive lessons are always in the form of a holiday, in which each student is able to express himself, and the creative environment in the classroom prevails.

It is advisable to follow the following recommendations when organizing interactive lessons:

→ use of interactive lessons in the assessment and accounting of knowledge and skills, consolidation and generalization, expansion and improvement;

→ The teacher's use of the same method does not give a positive result, but reduces the interest in it;

→ Thorough preparation for interactive lessons, first of all, clear development of its organizational aspects, goals and means;

→ In interactive lessons, the teacher should take into account their capabilities, mental state, level of preparation and characteristics of the class;

→ Involve other teachers in organizing such classes;

→ Follow the "for children" rule when conducting interactive lessons.

So, one of the important factors in increasing the effectiveness of teaching is interactive lessons, and today our advanced teachers in schools of the country, along with the widespread use of them, are looking for new forms and are still trying to find them.

In short, teaching and educating students is a difficult task. One of the most difficult tasks of a teacher is to achieve the activity of all students in the classroom, taking into account the individual characteristics of each student. It should be borne in mind that the activity of the student does not increase by itself, but is the result of a conscious attitude. As activity arises as a result of consciousness, it requires the coordination of the content, form of organization, methods and means of implementation of educational work. The teacher should try to consciously increase the interest of students in reading.

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