

## Scientific and Methodological Foundations for Studying the Problem of Using Modern Pedagogical Technologies in Education

*Dadajanova Dilbar Abdurashidovna*

Senior Teacher, Tashkent State Pedagogical University named after Nizami tdpu.uz Uzbekistan, Tashkent

*Khudoyberdiyeva Zumrat Khudayberdiyevna*

Teacher, Tashkent State Pedagogical University named after Nizami tdpu.uz Uzbekistan, Tashkent  
zumradxudayberdiyeva@gmail.com

-----\*\*\*-----

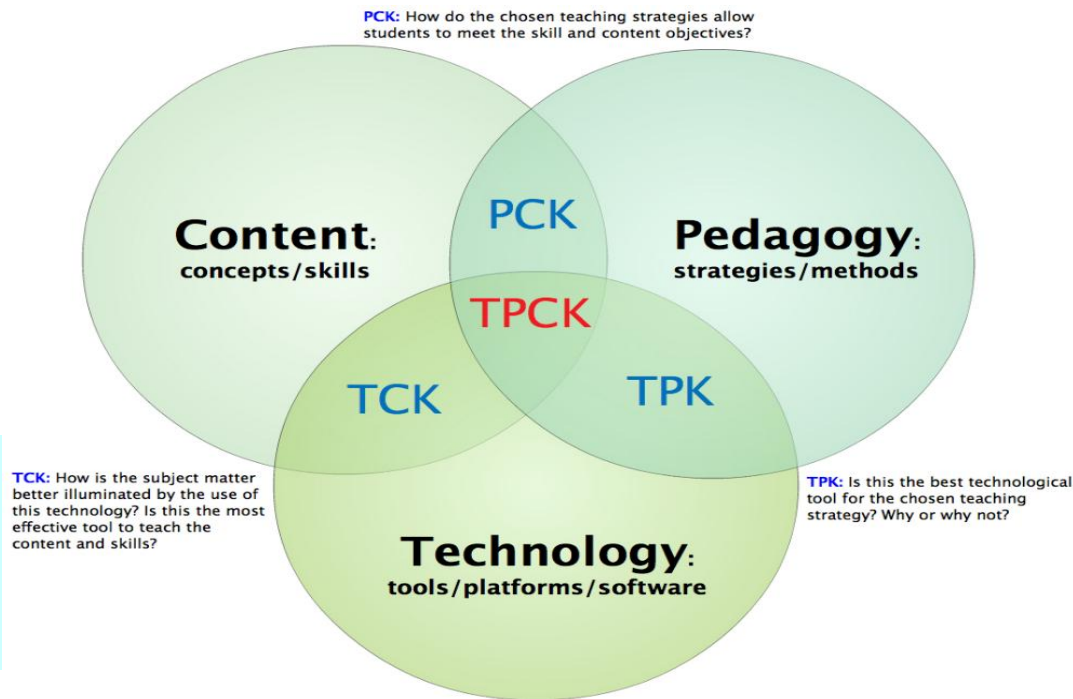
**Annotation:** This article is devoted to the scientific and methodological foundations for studying the problem of using modern pedagogical technologies in education system, the general features of pedagogical content technologies.

**Keywords:** pedagogical technology, student working, systematization, programming, technology of teaching, learning technology, modern technologies.

**Introduction.** Peculiarities of Humanitarian Pedagogical Technologies The concept of pedagogical technology entered the consciousness of teachers gradually: from the initial idea of pedagogical technology as learning with the help of technical means to the idea of pedagogical technology as a systematic and consistent implementation in practice of a pre-designed educational process [2]. The description of any educational process is a description of some pedagogical system. The pedagogical system is the basis of the technological process. V. Bospalko. The pedagogical system is understood as a set of (interrelated) means, methods and processes necessary for a purposeful influence on a person. Pedagogical technology is a project of a certain pedagogical system, implemented in practice. Therefore, at the heart of any pedagogical technology is a systematic approach. The system is an organic integrity (class, school, university, group, etc.). For example, a computer is a system, a student working on it, too. But together they form not a new unified system, but only a complex of interacting systems. A complex is a unity of interacting, relatively independently existing systems. Pedagogical technology is specifically implemented in technological processes. In the theory of learning, technological processes are, for example, a system of forms and means of studying a certain topic of a training course, organizing practical classes to develop skills and abilities in solving various types of problems. Each task is solvable with the help of an adequate (identical) learning technology. The integrity of the technology of training (education) is ensured by its three components: organizational form; didactic process; teacher qualification (or TCO). The subject of pedagogical technology is the specific interaction of teachers and students in various activities, organized on the basis of clear structuring, systematization, programming, algorithmization, standardization of methods and techniques of teaching or education, using computerization and technical means. The tasks of pedagogical technology are: working out the depth and strength of knowledge, consolidating skills and abilities in various fields of activity; development and consolidation of socially valuable forms and habits of behavior; learning to act with technological tools; development of technological thinking skills; fostering the habit of strict adherence to the requirements of technological discipline in the organization of educational tasks and socially useful work. In didactic processes (a process is a movement that exists objectively), a distinction is made between the actual educational process and the learning process. To organize the educational process, it is necessary to develop work on setting certain goals. A. S. Makarenko believed that the true development of pedagogical science is

associated with its ability to “project a personality”, that is, to diagnose the qualities and properties of a personality that should be formed (developed) in the process of education. Definiteness of goals makes it possible to move on to a strict technology of the educational process, which is (essentially) associated with an increase in the quality of the pedagogical (educational) process.

*Picture-1. Pedagogical content technology.*



**Main part.** What is the deep meaning of pedagogical technology as a whole?

Firstly, pedagogical technology nullifies the pedagogical impromptu in practical activities and transfers it to the path of preliminary design of the educational process with the subsequent implementation of the project in the classroom. This can be done in the language of the concepts of "didactic (educational) task" and "technology of teaching (education)".

Secondly, unlike the previously used lesson developments intended for the teacher, pedagogical technology offers a project of the educational process that determines the structure and content of the student's activity, that is, the design of educational and cognitive activity leads to high stability of success for almost any number of students.

Thirdly, an essential feature of pedagogical technology is the process of goal formation. This is the central problem of pedagogical technology in contrast to traditional pedagogy.

It is considered in two aspects:

- 1) diagnosis of goal formation and objective control of the quality of assimilation of educational material by students;
- 2) development of the personality as a whole. Fourthly, thanks to the idea of the subject of pedagogical technology as a project of a certain pedagogical system, it is possible to formulate an important principle for the development of pedagogical technology and its implementation in practice - the principle of integrity (structural and content) of the entire educational process.

The principle of integrity is the harmony of all elements of the pedagogical system. The principle of integrity means that when developing a project for a future pedagogical system of any type of education, it is necessary to achieve harmonious interaction of all elements of the pedagogical system (PS), both horizontally (within one period of study - a quarter, semester or academic year), and vertically - for the entire period of study. At the same time, it is unacceptable to make changes to at least one of the elements of the PS without affecting the others with the corresponding restructuring. So, changing the goals of education, but leaving its content and learning processes unchanged, we have deformed pedagogical systems. They, as practice shows, are not viable. However, the world is developing a different idea of what “pedagogical technology” in general and “teaching technology” in particular are.[2] With many definitions of the concepts of "pedagogical technology" in general and "learning technology" in particular, most experts combine them with three fundamentally important provisions: planning training based on an accurate definition of the desired standard in the form of a set of observed student actions; “programming” the entire learning process in the form of a strict sequence of teacher actions and the selection of formative influences (rewards and punishments) that determine the required behavioral learning; comparison of learning outcomes with the initially planned standard, in fact, a step-by-step test to identify cognitive progress, understood as a gradual complication of the behavioral repertoire of students. The rationalistic strategy of the educational process involves its clear construction in order to form a behavioral repertoire in the course of learning. M. Klarin, for example, puts forward the following sequence of actions: The first phase is training planning based on the exact definition of the desired standard in the form of a set of observed actions of students. The second phase, diagnostic, is the identification of the initial level of the observed actions. It is necessary to identify what knowledge, necessary for further cognitive advancement, the student has already mastered. And to reveal this not approximately, but very accurately for each student. The third phase is prescription: it provides for the "programming" of the desired learning outcomes and the selection of formative influences that determine the required behavioral learning. The fourth phase is the implementation of the planned plan: organizational support for training conditions, commissioning of the provided behavioral training technology. The final, fifth phase is the evaluation of the results by comparing them with the originally intended standard, in fact, sequential, step-by-step testing to identify the gradual complication of the "behavioral repertoire". Such training, from a psychological point of view, has an obvious behavioristic coloring.

The concept of “pedagogical technology” is most used in domestic pedagogy, although at the same time it is not sufficiently clarified. In modern practice of education, this concept is used, as a rule, in a non-strict scientific presentation and denotes reproducible techniques, methods of work of teachers. The widespread appeal to the concept of technology is based, first of all, on the sign of the reproducibility of pedagogical activity. In social terms, this sign is associated with another sign of technology - its possible mass character. A more rigorous understanding of pedagogical technology in domestic pedagogy is close to the concept of pedagogical technology that is widespread in the world and is considered as the construction of an educational process with specified diagnosable results.[3] The leading features of a rigorous understanding of pedagogical technology are: the diagnostic nature of the description of the goal; reproducibility of the pedagogical process (including the prescription of the stages, the corresponding learning objectives and the nature of the activities of the teacher and students); reproducibility of pedagogical results. M. V. Klarin proposed to distinguish between “strict” and “non-strict” pedagogical technologies. "Strict" pedagogical technologies contain signs of diagnostics and reproducibility in relation to both the process and the learning outcomes. They imply a consistent construction of the educational process, aimed at achieving diagnostically specified learning outcomes. "Non-rigorous" pedagogical technologies are reproducible in the educational process, but do not imply diagnostics of the described learning outcomes. [4] A strict idea of pedagogical technologies (according to M. V. Klarin), which we took as a basis, is formulated as “reproducible ways of organizing the educational

process that allow achieving diagnostically set learning goals". Technology does not exist in the pedagogical process in isolation from its general methodology, goals and content. Pedagogical technology is a set of psychological and pedagogical attitudes that determine the choice of forms, methods, methods, techniques, educational means. With the help of technology, an effective result is achieved in the development of personal properties in the process of mastering knowledge, skills and abilities. The following principles, described by the Dutch psychologist Carl van Parreren, most of all, in our opinion, reflect the ideology and practice of modern technologies:

*Principle 1:* cause students to be motivated to learn; this may be based on the personal experience of the students.

*Principle 2:* teach dialogically, that is, in collaboration with students, and not in a top-down manner.

*Principle 3:* teach diagnostically: constant monitoring of the learning activities of students is necessary; correct and maintain as needed.

*Principle 4:* Divide the content of education into suitable learning units and tasks. This approach should be varied for different categories of students in order to provide the most complete indicative basis for heterogeneous categories of students and to reshape the structure of their learning motivation (or cognitive interest).

*Principle 5:* provide educational content (action - learning model: subject-oriented; personality-oriented - Ed.) at heterogeneous levels (material, perceptual, mental, cf. Galperin). This is necessary in order for the internalization process to proceed as efficiently as possible.

*Principle 6:* Teach at an appropriate pace using appropriate media or media (eg spoken language, written language, artificial language, and graphic models and symbols).

*Principle 7:* Educate and assist students at the level of their actual abilities (for example, their set of communicative and mental actions and their way of dealing with life experience), and not at the level of external characteristics of students' responses to learning tasks. Van Parreren contrasts the rote memorization of unrelated facts with the assessment of student progress on the basis of a conscious interpretation of all sorts of conceptual inventories (cf. Davydov's concept of meaningful generalization).

*Principle 8:* the ability for students to reflect and evaluate their own progress (sense of competence). In this context, Van Parreren puts forward an unusual proposal, which is that the accepted system of marks is replaced by a set of assessment criteria developed jointly by students and the teacher (cf. Amonashvili). According to Van Parreren, the proposed system does not replace, but complements the timesheet system (cf. also Montessori).

*Principle 9:* Provides a set of tasks for the group before students start working on their own. Assistance is needed in order to avoid the "rigidity" of actions, speech, thoughts.

*Principle 10:* stimulate the initiative and creativity of students so that they master the subject content much deeper than the traditional method.

*Principle 11:* contribute to the actual formation of subjectivity, which is expressed precisely in the positive attitude of students towards schools

## References:

1. Amonashvili Sh. A. Reflections on humane pedagogy// Amonashvili Sh. A. — M.: Izd. House of Amonashvili, 1995. 496 p.

2. Bepalko V.P. Components of pedagogical technology. // Bepalko V.P. - M.: Pedagogy, 1989
3. Under the total. ed. N. L. Selivanova. Humanistic educational systems yesterday and today // Under the general. ed. N. L. Selivanova. — M.: Ped. Society of Russia, 1998—336 p.
4. Gorshkova V. V. Humanitarian nature of educational technologies in intersubjective pedagogical reality // Gorshkova V. V. — VI-k, 1999 — pp. 83—85.
5. Kan-Kalik V. A., Nikandrov N. D. Pedagogical creativity // Kan-Kalik V. A., Nikandrov N. D. - M.: Pedagogy, 1990 - p. 32-82.
6. Karakovsky V. A., Novikova L. I., Selivanova N. L. Education? Education ... Education! // Karakovsky V. A., Novikova L. I., Selivanova N. L. - M.: New school, 1996 - 160 p.
7. Kuzmina N.V. Methods for the study of pedagogical activity // Kuzmina N.V. - L.: Leningrad State University, 1970
8. Klarin M. V. Teaching technology: ideal and reality // Klarin M. V. — Riga, Experiment, 1999 — 180 p.
9. Klarin M. V. Innovations in world pedagogy// Klarin M. V. - Riga, "Experiment", 1998 - 180 p.
10. Levites D. G. Teaching practice: modern educational technologies // Levites D. G. — M., 1998.
11. Kholboboeva Aziza. "THE NOTION OF ADVERTISING DISCOURSE IN MODERN UZBEK LINGUISTICS," *Philology Matters*: Vol. 2020: Iss. 2, 2020. Article 9. DOI: 10.36078/987654439