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Developmental nature of pedagogical technologies

The main purpose of the article is to study the developmental nature of pedagogical technologies.

The most important issue facing the education system in modern times is to form personalities who meet the requirements of the time, who have high intellectual skills, cultural behavior, who are able to react flexibly and actively to the changes, and who are cognitively active. For this, new learning technologies are emerging in pedagogy. Therefore, there is a need to study the scientific content, pedagogical-psychological and methodological nature of new learning technologies that activate cognition. In the development of new learning technologies that activate cognition, in contrast to traditional education, the teacher factor is now more preferred. It is believed that the teacher's personal experience, pedagogical mastery, familiarity with the psychological characteristics of children can give them the opportunity to develop more concrete, thematic technologies for cognitive activity.

The training process is a complex process. It is important to organize it appropriately. Principles play an important role in the appropriate organization of training. Didactics, being a theory of training, reveals the objective laws and regularities of training and determines the ways of using them. Training principles are derived from training laws. The principle is a set of ideas adopted to organize educational activities according to the laws of didactics. The principle also means using the existing laws in didactics and organizing the activity in accordance with the requirements of those laws. Teaching principles serve the implementation of important tasks of didactics. The principles set the teacher such tasks that, by following them, he achieves high educational success of the students. The principles that determine the general direction of the teacher's activity during training are classified in different ways in the pedagogical literature.

Methods: the method of comperative analysis had been implemented during the research.

Application importance: the material can be used in lectures and seminars in higher education instituions.

Keywords: *active learning, technologies, education, pedagogy, development process, assistance, social experience, personality.*

Introduction. The active or interactive learning methods used in the educational system of the developed Western countries are increasingly being used in the educational institutions of our republic. These methods have a special place in the formation of the student's personality. It is impossible to form a student's personality without humanizing, humanitarianizing, and democratizing education. The principle of humanization of education serves social, human and cultural ideas. As it is known, the main essence of the reform consists of principles such as humanization, humanitarianization, democratization, differentiation and integration of education. These principles set as a task the creation of a secular education system based on the national ground, human values, and the formation of the learner as an individual, making him an equal subject of the educational process. The intellectual and moral development of students is prioritized in new learning technologies. Application of new technologies in training enables students to express their ideas in a clear, logical sequence. These methods ensure the development of students' creative abilities and form a high communication culture in them. Using the positive aspects of traditional methods, working out the pedagogical and psychological bases of new approaches, new learning technologies, innovations, and researching the scientific bases of the result-oriented, student-oriented education process in accordance with modern requirements is considered the most urgent problem facing the education system.

Formulation of the problem. The most important issue facing the education system in modern times is to form personalities who meet the requirements of the age, who have high intellectual skills, cultural behavior, who are able to respond flexibly and actively to the changes, and who are capable of cognitive activity. Cognitive

activity arises in interaction with a number of characteristics of the personality, in a favorable pedagogical environment. For this, new learning technologies are emerging in pedagogy. Therefore, there is a need to study the scientific content, pedagogical-psychological and methodical nature of new learning technologies that activate cognition.

Cognitive activity does not happen by itself. There are two important factors for this: educator-teacher and favorable pedagogical environment. As it is known, in order to ensure the implementation of Article 24 of the "Law of the Republic of Azerbaijan on Education" by the decision of the Cabinet of Ministers of the Republic of Azerbaijan dated September 6, 2010, dated September 163, "The content, organization and implementation of additional education" the procedure for issuing a relevant document to persons who have received education in any field" was approved (edu.gov.az). This Regulation is a very important document in terms of ensuring the establishment of the additional education system at the level of modern requirements. In the rule, one of the directions of additional education is provided to be implemented on the basis of a new model.

Starting from 2010, works related to the introduction of a new model in the field of advanced education and the transition to the module-credit system are being carried out. In this regard, educators need to know the scientific features, model, structure, and content of the new learning technology, which is important for its activity, in addition to carrying out their work. The learning environment is always focused on the development of intellectual knowledge in the subjects of study. Its efficiency is also related to it. Mental education involves acquiring a system of knowledge, intellectual skills and habits, developing thinking and mental qualities, forming cognitive motives. A child's learning activity manifests itself as a system of cognitive practices aimed at the fulfillment of educational tasks. During the learning activity, not only knowledge or skills are acquired, but also mental effort is made and thinking is done. The child develops the ability to learn, understand, and perceive. A number of cognitive operations are at the basis of learning and the ability to acquire knowledge. Cognitive activity does not happen by itself. There are many natural and social factors that activate their cognition. A large part of those factors falls to the share of pedagogy and psychology. As a result of their favorable influence, children's cognition becomes active in the educational process.

On the other hand, the history of modern education has necessarily become very complicated as a system of transmitting objective knowledge about the facts and laws of the external world. In particular, the vast majority of school subjects are adapted to different fields of science. The results show that demanding too much from the student does not produce successful results. It is more important to prepare him for life by teaching him the ways of self-development.

In pedagogy, this problem is approached first of all from the aspect of pedagogical methods, its subcomponents, way, means, method, principle, and its application in the teaching process is considered by making various classifications.

Letrature review. Z.A. Veysova's researches in this field attract attention. Her research is related to "active/interactive learning" relevant in new learning technologies. Active-interactive training is a form of organizing the training process in such a way that the teacher gives up the role of imparting knowledge and assumes a new role – the role of a guide (facilitator). Here, knowledge is sought and found by regularly using forms of group and pair work (Veysova, 2007).

At the end of the 20th century and the beginning of the 21st century, attention was paid to determining the role of new learning technologies in cognitive activity, and a series of studies were devoted to the problem. This idea takes an important place in the results of our research in this direction related to school experience – the character and content of the teacher's relationship with children is directly dependent on educational success and has a mutual relationship and affects the results of education in general.

First of all, intellect and potencial are important in development process. In order to implement and realize students' abilities, there are some tasks which teachers face. These studies reveal important aspects of teaching activity.

According to B. Ahmadov, training has the following principles: selection of training material based on its purpose; selection of training tools based on their content; selection of training methods based on its means; consideration of the student's ability in training; scientificity; awareness; activity and independence; systematicity and consistency; anticipation of the internal logic of the subject; solid mastery of knowledge; unity of reproductive and productive thinking; unity of knowledge and activity, etc.

The concept of "pedagogical technology" is clarified in many sources. "What is pedagogical technology?", "what is educational technology?", the essence of the concept of "technology", including "pedagogical" and "educational technologies" are analyzed. The concepts of "pedagogical technology", "educational technology", as well as the requirements for the development of other technologies related to them, find their explanation in different ways.

– system of pedagogical theories;

– technological bases of professional pedagogical education;
– pedagogical innovations in training activities;
– cognitive structure of educational technology;
– integral training technologies;
– alternative pedagogical technologies;
– modern training technologies;
– the basics of pedagogical technologies, etc. (Abasov, 2002).

The components of pedagogical technologies and their application experience should also be studied. This issue can be explained in the context of the technological experience, the use of innovative technologies in pedagogy and the methods and means of implementing pedagogical technologies, pedagogical technologies in the modernization of education.

As it can be seen, the problem involves issues that require deep pedagogical and psychological diversity. Approaching it only in terms of the requirements of pedagogy can lead to failure. If we are talking about the activation of cognition, then a number of issues need to be approached in an opposite manner. That approach is psychopedagogy. Based on this line in our research, we took the approach to technologies that affect the development of children's cognitive activity from this point of view.

Main part. New learning technologies that should be developed for the activation of cognition in the educational system are viewed as a continuation of the concept of "developmental learning". Therefore, new learning technologies are more developmental than educational and educative in nature. Thus, it is assumed that development permeates all areas, including personality (educational) and mastery (educational), and takes them forward.

In the development of new learning technologies that activate cognition, in contrast to traditional education, the teacher factor is now more preferred. It is believed that the teacher's personal experience, pedagogical mastery, familiarity with the psychological characteristics of children can give them the opportunity to develop more concrete, thematic technologies for cognitive activity. For this, teachers should have practical professional skills. These analyzes allow us to make a number of generalizations.

Thus, the fundamental principles of the essence of new learning technologies that create cognitive activity are distinguished:

– looking at learning and development as a whole, in the leading role of training;

– to overcome intellectualism in the teaching of education, to approach it from the position of the whole personality, the need to understand the world and oneself, self-activation and self-actualization;

– distinguishing the characteristics of the dependencies between the worldview and its social experience, development conditions, cognitive level, and ensuring the finding and teaching of dynamic ways of development;

– to differentiate the age differences and individual characteristics characterizing the learning and development process (Badiyev, 2008).

S. Kaplan's program for training gifted children mainly refers to two methods: deductive and problem studies. The first method involves starting with comments. Its purpose is to remind children of what they have learned, to direct and stimulate their interests to learn new information, to familiarize themselves with a general hypothesis. At the next stage, the teacher first introduces students to the general idea-problem that they should learn. After that, students put forward their hypotheses and ideas. Then they collect information to prove or disprove these hypotheses and conduct research.

They systematize the information they get and declare it. As a result, their hypothesis is either confirmed or rejected, and they plan their next activities by summarizing the results of this research. The practical application of the learning method based on full mastery involves the following sequence of steps:

1. Introductory part – instructing students to work based on the full mastery method.
2. Training in the direction of full mastery of each educational unit.
3. Evaluation of the complete mastery of the material for each student in general.
4. Explaining the nature of the grade he received for each student.

An important factor of the method is the clear formulation of the standard of complete absorption. Gilford's "Free Class" model involves free lesson systems without strict timetables, effective use of training time, curriculum, and classrooms. In this approach, the learning process is jointly managed by the teacher and students. The curriculum according to the Renzulli model allows students to devote most of their time to activities that are more interesting to them. Here, the teacher's task is to help each student in the following matters: to undertake the solution of problems that meet the student's interests and abilities; the student acquires the methods and research skills necessary to solve these problems. B. Blum's taxonomy of educational goals is aimed at the development of cognitive functions of gifted children. By comparing the objectives of the lesson plans with the theoretically possible outcomes, teachers can determine the types of tasks and additional objectives they can include in their lesson plans. Taxonomy is an effective tool for analyzing the impact of learning on children's memory, comprehension, and problem-solving abilities. B. Bloom's, C. Gilford's and other scholars' taxonomies cover three domains: cognitive, emotional, and psychomotor domains. However, modern theories of training do not determine the goals of training according to those areas, but based on the educational, developmental and educational content – components of training. According to the Azerbaijani

psychologist Professor A. Alizade, the main taxonomic categories are grouped into two sections: educational and developmental sections (Yeni-Təlim-Texnologiyalari-muhazireler.pdf (adpuquba.edu.az), p. 98).

Approbation of reserach results. The research was conducted in Psycology and pedagogy Department in Sumgayit State University.

Conclusion. As it can be seen, the problem involves issues that require deep pedagogical and psychological diversity. Approaching it only in terms of pedagogic requirements can lead to failure. If we are talking about the activation of cognition, then a number of issues need to be approached in an opposite manner. That approach is psychopedagogy. In our research, we based this line on the approach to technologies that affect the development of children's cognitive activity from this point of view.

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Розвивальний характер педагогічних технологій

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Основною метою статті є дослідження розвивальної природи педагогічних технологій.

Найважливішим завданням, яке стоїть перед системою освіти сучасності, є формування особистості, яка відповідає вимогам часу, має високий інтелектуальний рівень, культурну поведінку, здатну гнучко й активно реагувати на зміни, пізнавально активну. Для цього в педагогіці виникають нові технології навчання. Тому виникає необхідність дослідження наукового змісту, педагогічно-психологічної та методичної природи нових технологій навчання, що активізують пізнання. У розробці нових технологій навчання, що активізують пізнання, на відміну від традиційної освіти перевага надається фактору вчителя. Уважається, що особистий досвід учителя, педагогічна майстерність, знайомство з психологічними особливостями дітей можуть дати їм можливість виробити більш конкретні, тематичні технології пізнавальної діяльності.

Навчальний процес – це комплексний процес. Важливо його правильно організувати. Важливу роль у доцільній організації навчання відіграють принципи. Дидактика, будучи теорією навчання, розкриває об'єктивні закономірності й закономірності навчання, визначає шляхи їх використання. Принципи навчання випливають із законів навчання. Принцип – це сукупність ідей, прийнятих для організації навчальної діяльності за законами дидактики. Принцип також означає використання чинних у дидактиці законів та організацію діяльності відповідно до вимог цих законів. Принципи навчання слугують реалізації важливих завдань дидактики. Принципи ставлять перед учителем такі завдання, щоб, дотримуючись їх, він досягав високих навчальних успіхів учнів. У педагогічній літературі по-різному класифікуються принципи, що визначають загальну спрямованість діяльності вчителя під час навчання.

Методи: під час дослідження застосовано метод порівняльного аналізу.

Прикладне значення: матеріал може бути використаний на лекціях і семінарах у вищих навчальних закладах.

Ключові слова: *активне навчання, технології, освіта, педагогіка, процес розвитку, допомога, соціальний досвід, особистість.*

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