THEORETICALLY FOR EDUCATIONAL TECHNOLOGIES

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ABSTRACT: Modern educational technology exists in specific conditions and should guarantee reaching a specific level of training to be effective in performance and optimal waste of time, energy and sredstva.Teoretichno technology is organically related to the content of education.

KEYWORDS: pedagogical technology authoritarian technology, personal-oriented technology, technology cooperation, constructivism

In the process of improvement of pedagogical technology - the components of the education system: objectives, content, forms, methods, means of training manifested varying degrees of conservatism. Most often it is established in the professional aspects of training, the content is amended only in structure, dosage logic. Moreover, it largely determines the procedural part. However, the cardinal changes in methods lead to profound transformation of the objectives, content and forms and principal modification of the objectives and content led in turn to review the procedural aspects of the training.   Thus, technology and education content adequately reflect one another.

"Education consists of three main processes - training, education and development, which are interrelated. The training is aimed directly towards acquiring knowledge and experience of the children. Education and development are carried out indirectly. " *[Kirilova, G. – 2016, p. 20]*

Between technology and content of education is another component mediated - textbooks, playing a large role in the realization of that unity of content and technology training.

Fundamentally important part in educational technology is the position of the learner in the learning process and his treatment by the teacher. The analyzes of the works of established authors now show that this formulation can be defined several most important types of technologies:

➤ *Authoritarian,* in which the educator is the sole entity in the educational process, students are only "object". This technology is distinguished by clear organization in education, suppression of initiative and cognitive autonomy and authoritarian requirements.

➤ *Person-centered* technology puts the personality of the students in the center of the educational system, providing conflict-free and safe conditions for its development and implementation, taking into account its natural potentials. The main feature of this technology is in the focus on humanism, it aims versatile, free and creative development of personality.

ISSN 2367-5721

SocioBrains

INTERNATIONAL SCIENTIFIC REFEREED ONLINE JOURNAL   *PUBLISHER:*
WWW.SOCIOBRAINS.COM   *"SMART IDEAS – WISE DECISIONS" Ltd., BULGARIA*

ISSUE 21, MAY 2016   BOZHENA TAKVORIAN-SOLAKIAN 78-82

➢ *Technology of cooperation*, which in turn provides opportunities for partnership of subject-subjective relationship of equality between educator and learner. One characteristic of this technology is the creative element, which in many situations is predominant.

In educational technology can be examined several <u>main areas</u>, among which are: technology training, technology education, technology pedagogical diagnostics, technology management education and others.

That no the **technology of training** (didactic technology) It is one of the most developed areas of educational technology. The term "technology education" has a particularly wide application. In it, even provisionally, could distinguish between different <u>forms of appearance:</u>

➢ should first be pointed traditional technology training that disclosing and using different mechanisms, operations, procedures, algorithms and more. in the training process aimed at achieving greater effectiveness in the learning process. When it does apply modern technical means and new teaching materials. With ground P. Bespalko [1982] called such training "manual". This form can be seen as a first basis of modern technology training.

➢ Another form of this trend is the technology of preparing traditional materials and means of training. Made slides, videos, different types of presentations.

➢ Especially promising form at present the technology of using technically advanced multimedia resources - primarily computer technology of video systems. Widespread use of microprocessors in training is crucial to the development of the technology of technical means. In today's economic situation and the increasing availability of microcomputers opened up much wider opportunities for individualisation and differentiation of learning and new forms of its Technologicalization. In many cases there is the combined use of contemporary and classical training tools.

➢ The widespread use of mass media (media and communication) for the aims and objectives of education in recent decades has led to the formation of relatively independent form of the technology of education - ie. Pomegranate. Didactic technology of communication. The process of training her is regarded as one of the private cases of communication, social communication. Efforts are being made to intensify this communication on the basis of the experience of "communicative didactics" social psychology, information theory and others. Studied and explored the various mediators to enhance the effectiveness of pedagogical communication.

➢ Another form of the technology of training is Onto didactic technology that covers all the procedures and mechanisms for transforming and reducing latest knowledge of various sciences for didactic purposes. Onto didactic approach allows current scientific knowledge to rework not only available to students form but as a means to maximize the development of technical cognitive abilities and personal qualities. This approach is especially promising to solve the ever-deepening contradiction between the constantly increasing volume of scientific and technical information and capabilities of trainees for its absorption.

On the basis of the binary nature of learning activity-related - a procedural plan can be divided as relatively independent technology of teaching which characterizes the activity of the learner and learning the technology of that characterizes the work of the students. These two technologies are always interrelated and mutually conditioned each other. Within the the technology of teaching can be separated ekzaminatory technology (technology of the test),

which in fact has a significant effect on the technology of learning. For its part, the technology of teaching can be mainly performing - or information management and the technology of learning - performing - reproductive or participatory - creative.

As pointed Pl. Radev *[1997]*, if to the technology of training approaches extensional, i. e. it be divided into degrees can talk about technology primary education, technology education in secondary schools in upper education, university, training units education and training of adults. In the nature of educational content the technology of training can be divided into such a general and special items, technology, practical training, technology training in integrated courses, optional, etc. On the basis of the focus on didactic attitude author distinguishes Technology subjective - reflective processes and operations, technology and practical action. They in turn are information - receptive, intellectually - modeling, productively - practical.

The technology of nurture is another major field of educational technology. "It is less common compared with the technology of the training, therefore, it is not yet sufficiently differentiated. One reason is that the educational process as opposed to the process of learning less amenable to formalization and algorithm development. When it repeatability and standard lose their stereotypical characteristics are distinguished by extremely high variability. Nevertheless, the tendency to become more technical educational activities, to distinguish its main procedures and operations for their implementation available. Some authors emphasize that in revealing the mechanisms, tools, forms, methods and techniques of education should take into account his creativity "[Petrov, P. - 2001, p. 32].

Another trend in educational technology can be established as ***technology of the pedagogical diagnostics.*** It is based on the foundation of integrating knowledge and procedures in the field of pedagogy, psychology, statistics, mathematics, informatics. It is widely used for the purpose of training and nurture, using the system of modern scientific methods to study the intellectual characteristics and properties of the individual, the quality of its preparation, the level of development ú parameters including number of psychological and anatomical-physiological levels. Pedagogical diagnostics developed the theory and practice of creating and using various diagnostic procedures, methods and tools to optimize the teaching process. It is aimed at establishing the state to clarify the reasons outline the prospects in the development of personality as a result of various types of educational interactions.

Albeit conditionally, to the pedagogical diagnostics can be distinguished: first - a technology for making different tests designed for educational purposes and secondly - technology of organizing and conducting educational diagnostic tests. Within the the pedagogical diagnostics in the last decade was formed as a relatively autonomous area didaktometrix.

To the pedagogical technology can bring and a still insufficiently developed direction – ***the technology of the management of the education.*** Although it is not developed sufficiently, it can be assumed that there are two main areas - teaching and science of management, which are located in close interaction. Probably in the development of this technological trend particularly important to have automatic control systems of educational work, including specific patterns of training. In Bulgaria this direction actively developed by Prodan Stoyanov [2008] Peter Balkanski [2000; 2001; 2002] I. Simeonov [1987; 1995] and other authors.

In recent decades obvious interest in educational technology is constantly growing. Summarizing the reasons for this interest, it should be noted the need to implement in

pedagogy active approach, need to realize personal-orientrano training and opportunities to exclude less effective verbal ways of transmitting knowledge.

Analyses of several theoretical works give rise to V. P. Bespalko to confirm that the basis of the development of educational technology lies design of high academic activities of students. In the most common type according to him, it incorporates:

1. Description of measurable expected outcome of training (degree of mastery of concepts, methods of operation, characteristics of intellectual development, etc.);
2. Characteristics of psychological processes (tentative, logical, emotional, etc.) That need to be updated to achieve goals;
3. Informed content of the activity, stimulating the required mental processes constructing the situation, communication giving the necessary cognitive and practical experience;
4. Presentation of the material in the form of systems tasks and didactic procedures for utilization thereof (organization of individual and collective learning activity);
5. Highlight the logic of the object of study and conditions for the transfer of the acquired new educational situations;
6. Development of procedures for monitoring, measurement, quality diagnostic utilized material (degree of individual development of students, ways of its correction) [by: Bespalyko V. P. - 1989].
7. In modern social conditions increasingly in education - educational practice translate the ideas of constructivism.

Constructivism is theory of learning and knowledge, which covers a number of scientific fields - epistemology, pedagogy, general and pedagogical psychology and others. The basis of constructivism is the understanding that a person actively building what it knows and does not receive knowledge passively.In other words, on the basis of his experience, he built his own understanding of the world - selects and converts the information, builds hypotheses and make decisions based on cognitive structures.

On the basis of this understanding is adopted one of the key positions in constructivism - *the truth is not objective knowledge*, and formed by individual and his environment.

Their approval constructivism especially important are the ideas of John Dewey - of fundamental importance to reflexive activity of student performances of Leo Vыgotskiy [1960, 1965] of the interaction between language and thinking of Jean Piaget [1992] for the active nature of learning and approved his thesis - "Knowledge is absorbed actively learner, not perceived passively outside" and that cognitive development is the result of actions with elements of the environment, development of Vico's ability to explication of knowledge as a measure of the extent of his usvoenost ("Only he who can explain something that can claim to know it!") [by: Damyanova, A.- 2005].

In constructivist pedagogical process provides ample opportunity to express themselves mainly to students. Their study supports, encourages, facilitates and tested in real conditions. Constantly create conditions for the expression of learning, in order to maintain interest and motivation for learning. Constructivism in education is both a theory of learning and epistemology, because it spreads its attention on how people learn and what is the "nature" of knowledge [Ibid.].

It should be noted that constructivism in education managed to achieve unity of its object and its method. Its researchers defined several guiding principles:

➢ "Learning is a search or construct meanings;
➢ The construction ... requires an understanding of the whole as much as the parts that you need to be understood in the context of the whole;

➢ To teach well, we must be aware of the mental models that learners use;

➢ The reason someone teaches associated with need and will he or she invented important for him ... not just memorize the "right" answers and "vomited" meanings expressed by someone else "[Ibid.].

Accordingly, all the teacher must respect the maximum of each individual, promote it to carry out joint activities with other members of the group to support the implementation of learning in real terms to allow students to "construct" their own knowledge and skills . In the process of learning to stimulate no repetition of learned patterns of thought and creating your own.

All this gives grounds to assume that to learn constructive means:

➢ to learn actively;

➢ to solve problems;

➢ to create conditions for the transfer of lessons learned in real terms;

➢ to update old knowledge before construction of the new;

➢ to solve different types of authentic tasks related to practice;

➢ to provide conditions to acquire learning experience through solving problems, issues, participation in discussions;

➢ to promote creative and critical thinking in order to increase the autonomy of learners.

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