EDUCATIONAL TECHNOLOGIES AND THEIR QUALITY ASSESSMENT

[1]Anvar Jumanazarovich Xurramov, [2]Adham Khushimkulovich Boymurodov & [3]Jurayev Aburaykhan Xoluqulovich
[1]Associate Professor, Chirchik State Pedagogical Institute, **UZBEKISTAN**
[2]Senior Lecturer, Associate professor, Department of Informatics, **UZBEKISTAN**
[3]Independent researcher, Karshi Engineering-Economics Institute, **UZBEKISTAN**

ABSTRACT

The article provides innovative pedagogical technologies, educational technologies and their differences, technological approach in education and assessment of the quality of educational technologies, as well as the place of competence in the processing of educational technologies.

Keywords: Learning technology, pedagogical technology, technological approach, model of educational technology, design of training sessions, technology of modular training, assessment of the quality of education, metatechnology, macrotechnology, mesotechnology, microtechnology, competence, technology of full knowledge acquisition.

INTRODUCTION

Innovative pedagogical technology is a system of scientifically and practically based methods and tools to achieve the desired result in any field of education. And educational technology is a perfectly functioning system of all components of the educational process, pre-designed to achieve scientifically based and guaranteed results in achieving the educational goal.

This concept is broader than the concept of "Pedagogical technology" because, in addition to education and pedagogy, it includes various social, socio-political, managerial, cultural, psychological-pedagogical, medical-pedagogical, economic and other similar aspects. On the other hand, the concept of "pedagogical technology" applies to all branches of pedagogy. An important place among educational technologies is occupied by a technological approach to education, which guarantees the quality management of the educational process and the achievement of educational goals.

In foreign literature there are the following close terms:
technology in education - technologies in education;
technology of education - education technology;
Education technology - pedagogical technology.

The technological approach to social processes, the sphere of spiritual production - education, culture - and the use of the term "Technology" is a relatively new phenomenon for social reality.

The term "educational technology" has not yet taken a firm place in education. That is why there is no single definition of it. Often, educational technology is understood in a very narrow sense - for example, teaching technology, teaching or learning process.

Materials and methods

The technological approach opens up new opportunities for the development of various areas of education, including pedagogical activities, namely:

- Predicting the exact results, management of pedagogical processes;
- scientific substantiation and systematization of practical experiments and their use;

- solving problems in the field of education;
- creation of favorable conditions for personal development;
- effective use of available resources and opportunities;
- development of new technology models.

The question arises: why do we need an educational technology model? How is educational technology described?

First you need to define the goals and content of the education.

The components of the educational technology model are:

- name of the presented technology;
- What classification of educational technologies it belongs to;
- clear and well-formed structure of this technology;
- brief content;
- in what field of science;
- specific object;
- focus on solving problems in the field of applied science;
- a close prototype, if not the main one;
- list of features of the presented object that differ from the prototype;
- Advantages of the proposed object over the prototype;
- Pictures of technological processes, schemes, etc ;
- availability of application examples [3].

The approach adopted in copyright is chosen as the initial model in assessing the quality of educational technologies. This is a pragmatic approach that allows for the individualization of the object of copyright, as well as the realization of the object of intellectual property.

How to evaluate the quality of educational technology? In evaluating the educational technology presented, it is necessary to obtain copyright developed in world practice.

The main criteria for assessing the quality of educational technology are:

- the main features of the presented object that differ from the prototype;
- Advantages of the proposed object over the prototype of the selected object.

We use a theoretical-practical approach to the classification of educational technologies and a taxonomic table that reflects the structure of educational technology in relation to the organizational level [3].

Table 1

Taxonomic structure of pedagogical technology			
Level of organizational structures	**Level of theoretical and practical approaches**		
	a) scientific	b) official-classification	c) process-active
Metatechnologies	a1	b1	c1
Macrotechnologies	a2	b2	c2
Mesotechnologies	a3	b3	c3
Microtechnologies	a4	b4	c4

Horizontal level - "Theoretical and practical approaches": The scientific approach is a technology of scientifically developed solution of the problem based on the achievements of advanced theories and pedagogical practice. The formal-classification approach is a model that is presented for use to achieve the intended results. Purpose, content, form, tools, methods and technology of design algorithms.

Process-activity approach - the goal-oriented, planned, organizational, goal-oriented and results analysis technology of implementation of the activities of subjects and objects in pedagogical activity.

Vertical level - "Organizational structures": Metatechnology - the level of implementation of social policy in education. These are general pedagogical technologies (didactics, education), which cover the whole educational process in the country, region, educational institution. For example, pre-school education, developmental education, education quality management in the region, physical education and others.

Macrotechnologies - or network pedagogical technologies (general pedagogical and general methodological levels) cover any activity in the field of education, field, direction of education or upbringing, activities within the subject. For example, reversible and renewable learning technology, teaching science, and so on.

Result and discussion

Mesotechnologies are either modular-local technologies for the implementation of certain parts (modules) of the educational process, or some parts, aimed at solving local-didactic, methodological or educational tasks. For example, the technology of certain types of activities of the subject or objects in pedagogical activity, lesson technology, mastering technology, repetition or control within the limits of this module.

The required level of competence will be required in the development and implementation of any educational technology. Competence is the ability to perform certain functions or achieve goals. For example, team management, technology implementation, project execution, and so on.

For a person's life and activity, it is important not only to have knowledge in him, but also to have some kind of internal reserve of all his possessions and the ability to show and use something. Not only structural and morphological, but also functional qualities of a person - the ability to act quickly in real conditions, that is, to show competence, also play an important role.

Table 2: Competency classification

Competence	
Significant high competence	
1. Speech, letter ability 2. Counting ability 3. Communicativeness 4. Information ability 5. General cultural ability	6. Independent study and development 7. Teamwork 8. Problem solving 9. Universal values
By types of activities	
1) labor 2) training 3) the game 4) communicative (communication)	5) on the object of activity 6) professional 7) subject (specialist) 8) profiles
By areas of social activity	
1. Household 2. Civil society 3. Art 4. Cultural and leisure	5. In engineering and technology 6. In education 7. In medicine, physical education and sports 8. In politics

In the fields of social sciences and knowledge	
1. In Language and linguistics 2. In Philosophy 3. In the literature 4. In art	5. In Religion 6. In the social sciences 7. In history
In the fields of natural sciences and knowledge	
1. In mathematics 2. In physics 3. Informatics 4. In chemistry	5. In biology and medicine 6. In the sciences of the earth and the universe 7. In technical systems and construction
In social construction networks	
1. In the field of energy 2. In the field of transport 3. In the field of communication 4. In the field of defense	5. In agriculture 6. In the field of construction 7. In factory and factory production
On the composition of the field of psychology	
1. Cognitive 2. Operational-technological 3. Motivational	4. Ethics 5. Social 6. Behavioral
In the field of skills	
1. Physical education + mental sphere 2. General + practical 3. Performance + creative	4. Art + technical 5. Pedagogical + psychic 6. Social + political
On the stages of social maturity and legal status	
1. Preparation for school 2. School graduate competence 3. Young specialist competence	5. Competence of the specialist-trainee 6. Specialist - professional competence 7. Competence of the leader

Using the technology of "Full mastery of knowledge" in education can dramatically increase the quality and effectiveness of education when organizing the educational process. The authors of the technology of full assimilation of knowledge are American psychologists J. Carroll, B. Bloom and their followers J. Blok, L. Anderson [2].

It focuses on the fact that in the traditional learning process, learning conditions are always recorded (same learning time for all, method of presenting information, etc.). The main idea of the technology is that the learning outcome is guaranteed. Learning outcome is a constant parameter, and learning conditions – are variable.

At the same time, students are divided into the following categories depending on their abilities: - low-skilled, they are not able to master the predetermined level of knowledge and skills, even if it takes a lot of time; - Talented (about 5%) are able to do all the things they can not do; - The majority of students (about 90%), their ability to acquire knowledge and skills depends on the cost of study time.

CONCLUSION

These data were based on the assumption that proper organization of learning, especially the removal of time frames, could allow about 95% of learners to fully master the entire content of the course. If the conditions of study are the same for all, then most students will achieve only

"Intermediate" results. This approach requires educators working on teaching technology to properly organize the learning process. The implementation of this technology requires a reorganization of the traditional classroom system.

Focusing on the above, will lead to an increase in the quality and effectiveness of science and education in educational institutions.

REFERENCES

1. Ўзбекистон Республикасининг "Кадрлар тайёрлаш миллий дастури". Баркамол авлод – Ўзбекистон тараққиётининг пойдевори. –Т.: Ўзбекистон. 1997.

2. Тожиев М., Зиёмуҳаммадов Б. Миллий педагогик технологиянинг таълим-тарбия жараёнига татбиғи ва уни ёшлар интеллектуал салоҳиятини юксалтиришдаги ўрни. Монография. /Т.: «MUMTOZ SO'Z». 2010., -214 б.

3. Сейтхалилов Э.А., Тожиев М. Педагогическая технология: опыт практического применения и системно-содержательного анализа. / Учебное пособие. Т, "Tafakkur-Bostoni", 2012, 200 с.

4. Тожиев М., Зиёмуҳамедов Б., Усмонов Б.Ш., Хуррамов А.Ж. Ўқитувчи фаолиятини лойиҳалаш // Монография. – Тошкент: TURON-IQBOL, 2017.– 246 б.

5. Mamarajab Tajiev, Anvar Xurramov. Scientific and Pedagogical Principles for Achieving the Math Teaching Effectiveness. Eastern European Scientific Journal 2016.

6. Anvar J. Khurramov, Pedagogical technologies – reflection of educational process aimed at specific goal. Eastern European Scientific Journal Ausgabe 5-2017