

## DEVELOPMENT OF STUDENT AND YOUTH THINKING BASED ON INNOVATION TECHNOLOGIES

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### ABSTRACT

In this article, the role of innovative technologies in the development of the thinking of students, various forms of education and training, methods, principles, and tools of education and development of the thinking of students and various stages of continuous education, at the same time, "participation in self-education, cultural and educational activities, social and work activities" as well as through the acquisition of knowledge and mental development of a person, innovative technologies included in the traditional education system have certain positive pedagogical effects and modernization of education updating its content, but also about the use of active innovative technologies, the development of cognitive creative ways in education, the renewal of the educational process from the traditional view with the use of innovative integrated education of a new spectrum tested in pedagogical research.

**Keywords.** Innovation, education, technology, modernization, pedagogical technology, thinking, innovative technology, educational technology, competence.

### INTRODUCTION, LITERATURE REVIEW AND DISCUSSION

In our republic, the process of modernization of higher education, teaching activities are further improved, and the quality of our people's desire for knowledge, which has been formed over the centuries, is once again being manifested. Our young people want to live a healthy and beautiful life, have a permanent job in their profession, take responsibility, and not allow their human dignity to be degraded, in short, strives to achieve perfection and sees education as the most important prerequisite in this process. This requires meaningful descriptions of the training of future specialists, increasing the possibility of using modular and programmed teaching technology in the conditions of the electronic learning environment, and improving the process of training qualified specialists. In particular, great attention is being paid to the development of students' thinking in the process of continuous education.

RF-60 of the President of the Republic of Uzbekistan dated January 28, 2022 "On the Development Strategy of New Uzbekistan for 2022-2026", dated November 7, 2020 in the period of new development of Uzbekistan No. PF-6108 of October 8, 2019 on measures to develop the fields of education and science, on approval of the higher education system development consortium of the Republic of Uzbekistan until 2030 Decree No. RF-5847 and other normative-legal documents related to this activity specify a number of activities on the development of students' thinking.

**The main part:** Modernization of education emphasizes not only the renewal of its content, but also the use of active innovative technologies, the development of cognitive creative ways in education, the renewal of the educational process from the traditional perspective with the use of innovative integrated education in a new spectrum tested in pedagogical research. As a

result of implementation of integrative education, opportunities for integrated lessons will expand, contribute to the scientific formation of a holistic perception of reality.

Education and development of thinking of students is carried out at different stages of continuous education with the help of various forms, methods, principles, tools of education and upbringing. At the same time, "participation in self-education, cultural and educational activities, social and work activities" plays an important role in acquiring knowledge and mental development of a person. Innovative technologies introduced into the traditional education system in recent years undoubtedly have certain positive pedagogical effects, but they do not fundamentally solve the problems of developing the thinking of students.

Foreign pedagogue scientist OYUjan says in his article "Integrated education as a result of modern information": "Modernization of education means not only updating its content, but also active use of innovative technologies. Development of students' thinking is a traditional object of pedagogical research. Integrated education stands out in this direction of innovation. As a result of the implementation of education through integrated classes, the possibility of holistic perception of reality is achieved and it contributes to the formation of the scientific landscape of the world.

It is clear from the analysis that there are active and important changes in the approaches to the concept of "technology" from defining the processes of its development and material production to the definition of wide-ranging transformation activities for the provision of human needs. In this case, technology is understood in a broad sense not only as a human activity related to material production, but also as an activity of transformation in general. The study of the main ideas related to technology, in particular, the main concepts, shows that in the pedagogy of our country, natural-scientific, structural, functional approaches to the technological preparation of students are considered, most seriously, from the aspect of production activities. The researchers paid great attention to determining the conditions for the transition of schoolchildren to a new, practically oriented teaching system. In the works of a number of pedagogical scientists, the possibilities of implementing flexible technological training, taking into account the educational potential and its use in society, as well as the needs, have been described.

During the research, we observed the evolution of technology over the centuries, later turning into innovative technology, stage 1 30s of the XX century IT= Ptex A set of methods and tools that help to organize training activities accurately and efficiently (pedagogical technique - Ptex), stage 2 XX 1950s IT=Ptex. + TV Application of technical means (TV) in the educational process, improvement of their capabilities, expansion of information capacity, quality organization of their transmission service, individualization of student activity and 3rd stage IT = Ptex in the 60s of XX century. + TV + program education (DT) Program education - determination of educational goals, general design of the educational process, pre-diagnosis of the possibility of theoretical knowledge acquisition by students, determination of the effectiveness of the educational process, study of the achievement of educational goals, activity results We have determined the appearance of the analysis (Table 1).

**Table 1: The stage of formation of the theory of "innovative technology".**

No	Steps	Years	Educational technology -TT
1	Stage I	30s of XX century	IT= Ptex A set of methods and tools that help to organize educational activities accurately and efficiently (pedagogical technique - Ptex)
2	II stage	50s of XX century	IT=Ptex. + TV Application of technical means (TV) in the educational process, improvement of their capabilities, expansion of information capacity, quality organization of their transmission service, individualization of student activity
3	III stage	60s of XX century	IT = Ptex. + TV + program education (DT) Program education - determination of educational goals, general design of the educational process, pre-diagnosis of the possibility of theoretical knowledge acquisition by students, determination of the effectiveness of the educational process, study of the achievement of educational goals, activity results analysis

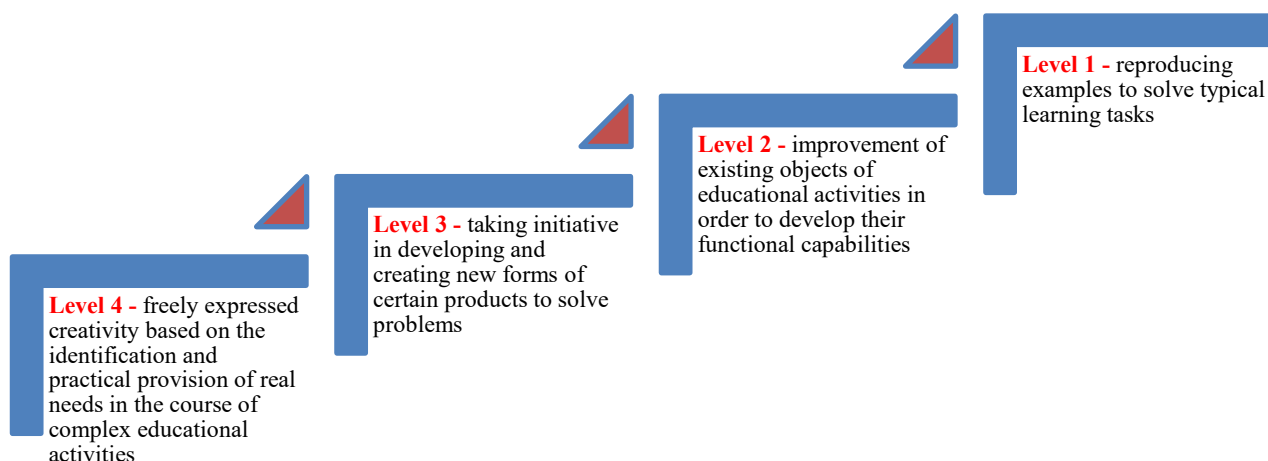
The collective efforts of a wide range of specialists were focused on determining ways to provide methodological, personnel and information support for the new field of education. Taking into account the young period of personality development, the following tasks are solved in the formation of technological competencies in schoolchildren:

- formation of technological knowledge, skills and competencies, functional literacy in the use of work objects and tools in students;
- to expand the range of ideas and to strengthen the knowledge and skills acquired in studying the basics of science in technological activities;
- students in an active position, readiness for competitiveness, ability to actively enter the system of market relations;
- development of creative abilities, design activities, mastering the basics of entrepreneurship;
- formation and determination of important professional qualities; - introduction to the labor market, professional self-determination and social and professional career planning;
- in-depth mastering of methods of activity and labor tools in the chosen field of professional activity.

The analysis of the tasks of forming technological competences among schoolchildren in modern pedagogical practice shows that the traditions of technology education and the priority direction in the field of material production have been preserved. This defines the scope of goals of practical oriented education, which is technological in form, but polytechnic in essence. Practice shows that the prospects of technological training in the general secondary education system, its importance and place in the educational process are determined by the tasks of development of students in accordance with the needs of broad social and professional formation. The modern stage of formation of technological competences among schoolchildren makes it possible to form practically oriented educational bases in the structure of various spheres of social labor activity with advanced theory and practice.

As a result of the socio-economic changes taking place in the country, the labor market was created, which, in turn, undoubtedly led to the education market. The market model of

education sets the task of adaptation to individual conditions, needs of production, new legal and value trends. Transition to the educational services system, taking into account the interests and capabilities of the customer, determines the need to satisfy their educational needs. The main task of forming technological competences is to prepare students for practical activities, to optimize the interaction of education and practice with real existence, to ensure the socio-professional self-determination and adaptation of schoolchildren. The subject "Technology" occupies an important place in the general secondary education system and is a necessary component of the formation and training of technological competences in students, and provides them with the opportunity to apply their technological knowledge in practice. Formation of technological competences in students in the teaching of the subject "Technology" based on an innovative approach required solving both pedagogical and management issues. An innovative approach to teaching technology in an educational institution represents a sum of innovations introduced by an educational institution into the educational process. In this environment, the teacher's pedagogical activity and educational process (in the development of students' thinking) can be successfully implemented. In understanding the innovative approach in this sense, the pedagogical conditions created for technological education are an important condition of the teacher's activity. The main purpose and content of the formation of technological competences in students based on an innovative approach is to prepare schoolchildren for creative work and ensure its harmonious development in all aspects. Implementation of goals and content in the development of students' thinking requires ensuring the continuity and integrity of technological education.



**Figure 1. Levels of development of students' thinking**

well-known typology of levels of active learning, we have distinguished four levels of educational activity in the development of students' thinking: restoration, improvement, initiative, creativity (Fig. 1).

We briefly describe them:

Level 1 - reproducing samples for solving typical educational tasks;

2nd level - improvement of existing objects of educational activities in order to develop their functional capabilities;

Level 3 - initiative in the development and creation of new forms of certain products to solve the problems;

Level 4 - freely expressed creativity based on the identification and practical provision of real needs in the course of complex educational activities.

In the development of students' thinking modern pedagogical innovations are considered as a whole complex process, as a result of consistent research of its interactive qualities, educational

parts, functional description and coherence, the development of KKT to increase the ID of students and young people, which is part of innovative educational technologies, is achieved, and MB was created for the effective operation of this computer system.

### Summary

It is appropriate to develop the thinking of students-young people based on the following sequence: value base (factors of manifestation of scientific values); value consciousness (fundamentals that create scientific values); valuable result (resulting scientific values); value assessment (influence of scientific values on social development and youth education); conclusion (on the formation of a person's spiritual and scientific outlook); prediction (on the rise of a person's scientific outlook); recommendation (on use for practical activities) and they are considered a didactic basis for creating algorithmic stages of development of students' thinking.

Universal and scientific values, first of all, in the development of science and education, in improving people's living conditions, in achieving public perfection, in improving the interests of the community, in accelerating the level of social development, and in increasing the economic and spiritual-educational power of the state . will be and guaranteed effective ways to develop their thinking.

The research , it can be noted that if our students want to develop their thinking based on the needs of the times, they must have detailed information about the informational learning environment, and it is necessary to organize it in accordance with the directions of training specialists, especially in the training of specialists in social and humanitarian directions. By using ready-made intellectualized computer system, computer simulators, professional computer games, enriching intellectual potential and developing thinking, it is possible to train competitive specialists in accordance with the requirements of the time.

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