SCIENTIFIC AND THEORETICAL BASIS OF USING INTERACTIVE METHODS IN THE EDUCATIONAL PROCESS

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ABSTRACT

This article is dedicated to show the theoretical and practical aspects of turning students into subjects of the educational process, i.e. executors, let them solve educational problems independently and add interactive methods to the national education system in the present conditions, where the speed of the flow of information has increased unimaginably due to the era of globalization and scientific-technical progress.

Keywords : interactive, graphic, object, subject, transmission, transformation, transaction, constructivism , individual, intellect.

Today, humanity has entered one of the most critical turning points in the history of its development. Today's man is going through a period when his way of life and thinking can be pushed into other valleys due to the communication revolution and the flood of information that is constantly closing. A person can keep pace with life only if he constantly improves and attains mental and spiritual maturity. For this, one must work on the subject, constantly study and research independently. For this reason, it is necessary to educate children to think independently and find solutions to problems already in school. Therefore, since the last quarter of the 20th century, there was a need to organize the teaching process on a global scale based on completely new principles. The traditional way of education, which believes that its main task is to provide a certain amount of knowledge, is completely inadequate to prepare young people who can live in a rapidly changing world. Because science and technology have developed to such an extent that now a person cannot keep even the most basic concepts in his memory. On top of that, young people who are taking an independent step into a life of constant changes, if they are not intellectually and spiritually ready for such changes, they may not find their place in the world of competition. Humanity has been trying to prepare its descendants to lead a decent life since its inception. But in no time has the spirituality of a person gained such importance as it does now. After all, the progress of science and technology has increased the power of human thinking to an unprecedented level. But there is no guarantee that this power will be directed only to goodness. History shows that scientific achievements have often served evil and evil. Therefore, at the current stage of human history, the formation of an inquisitive, enterprising and spiritual person is of crucial importance. The focus of attention in education largely depends on the philosophical basis used in the organization of the teaching process.

Prof. Q. Yoldoshev writes in one of his articles: "The philosophical basis determines the essence of both science and practice of pedagogy. Pedagogical practice, equal to the history of mankind, is generally organized on the basis of three main philosophical directions. These philosophical trends are called transmission, transformation, transaction in the science of pedagogy. The first word trans in these compound words is Latin and means "through", "to pass through", "to pass through"[1]. The scientist said that the process of organizing education based on the philosophy of transmission lasted for a very long time in terms of time, and included periods when human experience and knowledge were relatively small, and the development of science was more practical. In the educational evening organized on the basis of such a philosophy, the teacher taught, and

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the students absorbed the knowledge he gave. Since there was not much knowledge acquired by humanity during this period, the teacher, as a person who had fully mastered it, was engaged in conveying what he knew to his students in an understandable way. The amount of knowledge acquired by humanity is somewhat when it became difficult and time-consuming to teach them to the younger generation, the educational process was organized based on the philosophy of transformation. Now in schools, not this or that science itself, but its foundations have been taught. At this stage, not only the students, but also the teacher could not fully master it because the science was very advanced. Therefore, the teacher, acting as a coordinator and transformer between science and students, tries to instill in young people the main essence of science, which is considered the most necessary for people's lives. In both of these pedagogical philosophies, the teacher is the subject of the educational process, and the knowledge to be acquired is the main value. Education based on this philosophy placed more emphasis on memory development, with the ultimate goal of developing the left hemisphere of the student's brain. Today's society is not satisfied with training students who only remember what the teacher says. Now it was realized that even a strong memory cannot cover all the events and laws of the infinite universe. There is also the fact that the knowledge acquired by memory can be used only in standard situations. This knowledge, which is learned in pain, turns into something useless in a different situation than what is envisaged in the lesson and textbook. As you know, life is never standard. It is confusing, confusing and extremely colorful. That is why teaching the young generation to think independently, to search for ways to find the right way in non-standard situations, complicated life situations is the most important issue in today's education system. The current state of science and technology development Ati and the current level of human psychology required the organization of the teaching process based on a different philosophy. As a result of this demand, from the second half of the 20th century, the philosophy of transaction was applied to pedagogical practice. This philosophy envisages that knowledge is acquired by students as a result of their actions and aspirations. According to this philosophy, the main value of the educational system and process is not knowledge, but the personality of the student. Also, the student is in the position of a subject who implements the teaching process together with the teacher. By this time, the development of science has reached such a level that it is no longer possible to teach students the basics of science. The rapid development of science has brought to light a number of problems that no one could have imagined before. Now it has become extremely important to solve the problem of which science basics should be taught to students, how much, when and in what way. The transactional pedagogical philosophy is based on the view that every person living in the same space and time sees the world with his own eyes, so he should learn the phenomena of the world in the same way on his own. This pedagogical philosophy cancels the study of the world in the educational process only from the point of view of the subject of study. He believes that a person learns the phenomena of the world not in parts, but as a whole, as a whole, therefore, education should be organized on this basis. For this, he believes that it is necessary to present the scientific laws that represent the essence of world phenomena in an understandable way in the educational process. The reason for such a philosophical approach is that the process of fundamental renewal of the education system is taking place on a global scale today. American scientists' research on knowledge acquisition during the next 30-40 years showed that today the school and the teacher are in the fourth place after the family, the media and the social environment in providing knowledge to children. The increase in the level of education of the members of the society led to the increase in the educational opportunities of the family. Today, the vast majority of families in the world are able to provide their children with a certain amount of education. The rapid increase in the amount of information has led to an increase in the number of media. Also, very convenient technical means of acquiring the necessary information from this countless information have been created. Globally, the general intellectual level of people has increased significantly. This situation led to an increase in the scope of mutual educational influence that people show to each other. Therefore, the teacher is no longer the only bright star in the sky of

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knowledge. Sciences have expanded and deepened to such an extent that it is no longer possible for a person to fully understand even one branch of science, let alone all sciences, no matter how hard he tries. That is why the goal (orientation) that is sought in the world education system has changed. If earlier the entire educational process was aimed at strengthening the memory of students and this was enough for the level of development of the individual and the society at that time, today focusing education only on strengthening the memory is enough for the development of society. it didn't work. Such technical means have been created in the world that can replace human memory, so that now a person can have a lot of information at any time without any difficulty. Today, there is a need to form people who use the available technical opportunities for noble goals, who have an inner need to study the phenomena of the world, and who search for its ways. The world in the flood of information demands to find effective and modern ways to educate young people, to form certain skills and competencies in them. changes have given rise to interactive methods that have become more and more widespread worldwide in recent years. Interactive methods deserve attention because they are focused on the formation of free-thinking, independent-seeking students. In this method of teaching, it is assumed that the main work in the teaching process is done by students, they are not the object of education, but the subject, i.e., the executor, just like the teacher. Interactive methods are based not only on the joint activity of the teacher and students, but also on the didactic activity of each student and other students in mutual cooperation. The term "interactive" is derived from the Latin word "inter act", where "inter" means mutual, together and "act" means action. Therefore, interactive methods envisage the organization of students' joint activities with each other and their teachers in the full mastery of the educational content. These methods rely on students' activity, free thinking, independent research, creative approach to the information to be learned. Interactive methods are based on the activity of each student participating in the educational process. When these methods are used, learning becomes an interesting life activity for the student. When interactive methods are used, students are not taught, but they themselves, together with the teacher, learn a certain direction and amount of knowledge independently. This situation encourages free thinking and independent research in children. The participants of the educational process organized in this form freely argue with each other, learn the educational material freely, not as ordered, but as they wish. It should be noted that the main features of interactive methods are: students' attempts to learn new knowledge independently, and the participants of the educational process, of course, work in small groups. The assignment of educational tasks to all members of a small group rather than to an individual student creates a sense of community among students and increases their initiative. Many teachers believe that the main feature of interactive methods is their fun, and they use these methods they put more emphasis on this aspect. Truly interactive methods make learning sessions fun. But fun is not enough for the educational process. Fun is just one hallmark of interactive methods. It should be noted that he is not the main character either. Interactive methods, like any advanced methods of education, are important because they are aimed at achieving more didactic results by spending less time, effort and resources. Interactive methods did not appear by chance. It is no coincidence that it appeared in the last quarter of the 20th century. In order to organize education in an interactive way, human thinking had to rise to a certain height, and the development of science had to reach its peak. Most importantly, the need for interactive education should arise in the way of human thinking. Transactional pedagogical philosophy served as such an intellectual base for the emergence of interactive methods. This pedagogic philosophy assumed that students should be executors of education, not participants, and that they should carry out this process themselves in mutual cooperation. Constructivism, which emerged in the second half of the 20th century, became the scientific-theoretical basis for the emergence of interactive methods. **Constructivism** was widely spread in the world pedagogy as both a theoretical view and a practical direction during the next half century. The name of this scientific worldview is derived from the Latin words "constructio" - "device", "building", according to which education is a process in which knowledge is constructed as a result of students' activities, that is, it is

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made into a specific intellectual device. Pedagogical practice, which has been going on since the beginning of mankind, has shown that one cannot teach another. Each student participating in the educational process learns on his own, and the result he achieves is also in accordance with his level of study. A student who studies hard will get a higher result, a student who does not participate well in the educational process will get a lower education. If the teacher could teach the students, all the students in the group he taught would learn the same. However, in the history of education, there has never been a teacher who was able to teach all students in the same way. Constructivist philosophy is the famous Swiss philosopher and pedagogue Jean Piaget, the father of modern American pedagogy John Dewey, the famous Russian psychologist LS Vygotsky, the American psychologist Benjamin It was formed based on the views of the psychology, pedagogy and philosophy of educational organization of scientists like Bloom. This pedagogical philosophy is based on the opinion of Jean Piaget: "... the child is the builder of his own intellect ." According to Piaget, education is an active process, and each person must "build" new knowledge on the basis of previous knowledge and experience. Indeed, in life, no one receives a ready-made idea from another person, but always creates his own vision. Owning one's own opinion and view is the reason why every person in the world perceives the same thing or event differently. During his life, a person builds his imagination and understanding of the world and its events in his own way and understands the world according to his views. This is the reason why every person has his own worldview and belief. It is because of this diversity that each person is unique and because of this uniqueness is valuable.

It should be noted that interactive methods cannot be completely opposed to traditional educational methods. They are educational methods that negate each other, one does not destroy the other, but complements each other. The attitude that you have to choose one of the traditional or the interactive method during the teaching process is nothing but educational ignorance. Teaching methods are innumerable and each of them has a unique value for the situation in which it is used. It is ignorance of methodology science and practice to say that a method used in the teaching process is a universal method that can be used regardless of where and with whom work is done. Therefore, it is also possible to use traditional teaching methods together with interactive methods in one lesson. To put them against each other is completely contrary to pedagogical logic.

In conclusion, the implementation of learning and teaching in the educational process on the basis of interactive methods will raise the national educational process to a new level and allow students to acquire knowledge independently, to develop their skills and competencies. accelerates the process of becoming. Most importantly, interactive methods have a positive effect on the formation of students' spirituality, which serves the development of the personality of the nation's youth.

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