THE IMPORTANCE OF PEDAGOGICAL DIAGNOSIS FOR QUALITY ACQUISITION OF KNOWLEDGE

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Abstract. Pedagogical diagnostics in modern conditions is an important component of teacher's professional activity aimed at the personality formation and development of students. This article presents a brief analysis of individual studies in the field of psychological and pedagogical diagnostics; their didactic and educational value for modern education discussed; and individual diagnosing methods of key knowledge and skills of students are given. In modern conditions, the use of pedagogical diagnostics in practice ensures the effectiveness of the training and educational process in its scientific, methodological, organizational and practical aspects. It creates the conditions for high-quality acquisition of competences by pupils and students. The use of educational diagnostics helps to identify and quickly resolve deficiencies in the educational process, to predict the prospects of its development.

Keywords: diagnostics, psychological and pedagogical diagnostics, authorial programs, culture of design, system of tasks, computer technology, methods of activity evaluation.

"Pedagogy" as a science in modern conditions is aimed at the solution to a question of the comprehensive development and education of a harmonious person. Over the centuries, the system of training and education reflected the rich tradition of forming higher consciousness, thinking, mindset, moral qualities of the person. At all stages of human development, pedagogical practice relied on these traditions. However, pedagogical traditions do not have a permanent nature, they absorb changes in ideas and phenomena of objective reality, dialectically enriched and developed on the basis of achievements in real life, which is the impetus for the update and emergence of new trends in the pedagogical process and scientific activities. Pedagogical science is enriched with new ideas, principles, and in its content independent scientific directions, and even sciences are formed. In the last quarter of the twentieth century, as part of pedagogy such independent principles as "Social pedagogy", "Educational technology", "Innovative pedagogy", "Educational innovation", "Pedagogical conflict management", "Pedagogical diagnostics." These areas of science took their rightful place in the teaching practice and help in the study of current educational problems.

"Educational Diagnosis" – a relatively young science, and is applied in the world education practice for not more than five years. In the Republic of Uzbekistan in the education system initial experience is gained, but teachers lack practical knowledge for the full application of all possibilities of "pedagogical diagnostics." Leading ideas and basic principles of pedagogical diagnostics can be successfully used in the development of a designing culture by means of computer technologies. For more details on this question we discuss below.

In order to reveal the essence of pedagogical activities aimed at developing a designing culture of personality by means of computer technology, it is advisable to consult with the "pedagogical diagnostics’ content".

"Diagnostics" (from the Greek lang. «diagnostikos» – a discerning, distinguishing) means "the ability to identify" (Aminov et al., 2002, p. 283). The term was first used in Ancient Greece medicine. For successful treatment, the Greeks tried to establish the cause of the disease, identify the characteristics of a sick organism, to collect information about the course of the disease, to determine the effect of various drugs, and due to the all symptoms they properly made the diagnosis about sickness. At that time, researches were conducted on the diagnosis of diseases. Thanks to the rich experience of people, the ability of people in curing diseases (tabibs, witch doctors, healers), and their researches, diagnostic practice became rich with scientific knowledge.

In the first stages of society development, in defining illnesses people relied on simple and obvious symptoms, such as vomiting, sweating, feeling pain, fever, skin discoloration and others. For example, in ancient Egypt and India, ancient doctors observed body temperature, listened to heart beat, paid attention to the smoothness of the surface of the body; in ancient China, the pulse was measured to determine the rhythm.
of the heart and blood vessels; In Greece there were the research clinic wherein doctors simultaneously both performed diagnosis and treatment, and that was the original basis for the development of medicine.

Based on the initial diagnosis, methods for the determination of disease appeared and began to create the doctrine of diagnosis. In modern conditions the concept of diagnosis is complex: it includes social conditions, the mental condition of the patient, hereditary and physiological characteristics, the causes of the disease, the physiological processes occurring in the body, and the impact of external factors and medications.

At subsequent stages of social development, due to changes in the economic and cultural life the term "diagnosis" has been used in various fields of life. For example, in engineering (technical diagnostics of machines, equipment, facilities and other technical objects), methods and means of study and evaluate their technical condition; in economics (economic diagnostics; economic relations, the organization, production based on analysis of reforming trends, industry upgrade, the service sector, the production and marketing of products, providing the industry with qualified professionals, anticipated problems in their management, their characteristics); in psychology (psychological diagnosis, abilities, interests, aptitudes, their possible manifestations, development and utilization, the formation of personality on the basis of diagnostic data).

Pedagogical diagnostics is directly related to psychological diagnosis and develops on its basis. Psychological diagnostics was formed as an independent science in the late nineteenth and early twentieth century on the basis of the ideas put forward in a number of scientific studies. During this period, Wilhelm Wundt and William Stern in their research justified not only general psychological functions, but also studied a wide range of individual personality traits (perception, memory, attention, suggestibility, and others.). However, the term "psychological diagnostics" is connected with the name of the Hermann Rorschach. In 1921, he published his treatise entitled "Psychodiagnostik": diagnostic test for intelligence. Since then began the history of the development of psychological diagnosis (Pudochkina, 2011).

The fact that today "educational diagnostics" has become an important part of the teacher's professional activity, the German scientist Karlheinz Ingenkamp plays important role here, which in 1968 put forward the idea of using the concept of "pedagogical diagnostics" in education. The author has developed scientific criteria on which the teacher can, with the help of questionnaires, to observe, to oversee the activities of students and process the results to accumulate information about the dynamics of students, which is the basis for identifying the causes (success or gaps) and forecasting prospects for the development process of training and education.

Application of the pedagogical diagnostics ideas is of great importance in the development of a designing culture of personality by means of computer technology and the effectiveness of pupils' (students') activity. For further spread of educational diagnostics, it is appropriate to use the techniques developed by P.I. Tretyakov ("Diagnosis of the level of attained education", "Diagnosis of the zone of proximal and long-term development"); G.A. Russkiy ("Diagnosis of knowledge acquisition", "Diagnosis of the level of students to work independently with text learning materials") (Pudochkina, 2011). In these methods, the potential development of a designing culture of students based on computer technology is highlighted.

P.I. Tretyakov in the "Diagnosis of the attained education level" justified the possibility of creating a program aimed at developing students' skills of independent work of different levels of complexity and correct deficiencies in cognitive activity (Pudochkina, 2011).

In the learning process, each student in the acquisition of scientific knowledge uses a variety of computer technology services; gets an idea of creativity, he forms in the process the necessary knowledge and skills. The student must be able to distinguish between computer programs, certain operations performed by a computer, symbolic representation. Student must be able to open embedded exercises in the computer's memory, assignments, prepared projects, presentations, rules of their training location sequence, and make notes, explanations. Using a computer, the student prepares for the implementation of creative work: establishes a relationship of events, shows cause and effect. The student must show acquired theoretical knowledge in the performance of practical tasks proposed by the teacher in the form of pictures, schemes, drawings, tables, crossword puzzles, anagrams and riddles. Student using the computer-assisted presentation skills demonstrates his creative works.

According to the method of P.I. Tretyakov, when assessing KSA students should focus on the content of the jobs, their self-fulfillment by students. The author gives advice on assessing the level of KSA (Table 1).

Based on the author's concept on the creative use of computer technology for the development of a personality designing culture, we have created a system of teaching assignments for the independent exercise
of the students in the classroom. Performance of tasks with a computer is connected with the creation of certain pedagogical conditions.

<table>
<thead>
<tr>
<th>Content of tasks</th>
<th>Level of KSA acquisition</th>
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<tr>
<td>1 Compare, choose, contrast, get the extra</td>
<td>1st: distinction</td>
</tr>
<tr>
<td>2 Copy, draw, write, repeat the story of classmate</td>
<td>2nd: memorization</td>
</tr>
<tr>
<td>3 Why, for what purpose, related what, find cause and effect relationship that can be combined, select an independent unit, summarize</td>
<td>3rd: fixing memory</td>
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<tr>
<td>4 Follow the sample, based on the rules, use the formula; tell, compare any features</td>
<td>4th: practical application</td>
</tr>
<tr>
<td>5 Create, think, project, model, justify, find the solution</td>
<td>5th: presentation of creative work</td>
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Before offering learners (students) teaching tasks associated with creating crossword puzzles, scan-word puzzles, other puzzles and anagrams, the teacher needs to explain the meaning and purpose of the task, the mechanism of its implementation, and give the necessary instructions.

During the study in the fulfillment of tasks of a creative nature, special attention from researchers and teachers of the experimenter was paid to creating a designing culture of students.

In carrying out teaching assignments students creatively used computer means.

Before applying the methodology to assess the activity and creative work of students, the teacher should explain them based on what evaluation indicators are formed.

The advantage of this method lies in the fact that students know how to assess the level of KSA acquisition and can choose the appropriate options for tasks, so they are aware of their own potential or try to fill the gaps.

The results of the students’ independent work are reflected in the table (Table 2).

<table>
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<tr>
<th>Full name</th>
<th>Complete and correct implementation of the task</th>
<th>Conclusion</th>
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<tr>
<td>Differentiating</td>
<td>Memorizing</td>
<td>Fixed in memory</td>
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Thus, in modern conditions, the use of pedagogical diagnostics in practice ensures the effectiveness of the training and educational process in its scientific, methodological, organizational and practical aspects. It creates the conditions for high-quality acquisition of competences by pupils and students. The use of educational diagnostics helps to identify and quickly resolve deficiencies in the educational process, to predict the prospects of its development.

**References**


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