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Research Article

USE OF PEDAGOGICAL TAXONOMY IN THE PROCESS OF HIGHER EDUCATION

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Musaeva Nodira Nizamovna
Bukhara State University Associate Professor, d.p.s. (DSc), Uzbekistan

Akhrarova Shoira Batirovna
Master of Asia International University, Uzbekistan

ABSTRACT

In this article the actuality of the use of pedagogical taxonomies in the higher educational process, its peculiarities, methods and methods, and its application is clear.

KEYWORDS

Pedagogical technologies, Blum taxonomy, innovation, method, knowledge, understanding, application, analysis, synthesis, evaluation, attitude.

INTRODUCTION

Education in the Republic of Uzbekistan is aimed at training a new generation of personnel with a competitive, high professional culture, creative and social activity [5]. In this regard, achieving real educational results is one of the important indicators of the teacher's professional skills. Therefore, the creation of a holistic mechanism for introducing such methods and methods into the educational process, which will help students of higher educational institutions not only acquire certain knowledge, skills, skills and abilities, but also develop their independent thinking, creative abilities, is an important problem of teaching and intellectual abilities that, along with other educational disciplines, play an important role.

METHODS

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In the course of the research, the law on education, literature on the topic and internet resources were used. During the writing of the article, the principles of theoretical-deductive inference, analysis and synthesis, logic were applied.

DISCUSSION AND RESULTS

Education in the Republic of Uzbekistan is aimed at training a new generation of personnel with a competitive, high professional culture, creative and social activity. In this regard, achieving real educational results is one of the important indicators of the teacher's professional skills. Therefore, pedagogy is an important problem of teaching to create a holistic mechanism for introducing such methods and methods into the educational process, which will help students of higher educational institutions not only acquire certain knowledge, skills, skills and abilities, but also develop their independent thinking, creative abilities, and are intellectual abilities that play an important role, along with other educational disciplines. Education as a social institution is a system that embodies its purpose, content, curricula, taking into account the previous levels of education, the next ones are predicted. Consequently, the content and construction of educational activities correspond to such principles as didactics, scientific character, convenience, visibility, systematicity sequence, student consciousness and activity, the power to acquire knowledge, skills and skills, interdependence. The use of inter-disciplinary relations based on the disclosure of the laws of the educational process, the methodology develops the principles of teaching, as well as personal rules, which are preliminary data for guiding the practice.

Teaching methodology develops the problems, goals and objectives of teaching. The purpose of teaching should meet the educational and educational tasks of higher education, requirements of a scientific nature and age characteristics of students. In modern educational systems, regardless of the form of education, there is a tendency to evaluate the result (the final result of Education), which is expressed by certain unified requirements or standards. The issues of determining, measuring and evaluating the level of formation of knowledge, skills and qualifications of students are currently one of the central issues in teaching practice. If the goal of learning determines what the student should know and be able to do, the learning goals answer the question of how to proceed towards the goal. In this regard, it is advisable to study the issue of the hierarchical sequence of pedagogical educational goals in the teaching methodology. Taxonomy (from Greek “taxi” meaning “location”, “structure”, “order”, and “nomos” meaning “law”) is a hierarchical structure of the theory of classification and systematization of complex organized areas of reality. The term” taxonomy " was coined in science by the Swiss botanist O.Introduced decandol and developed a classification of plants. As part of educational technology, Benjamin Blum created the first taxonomy of pedagogical goals in 1956. Meanwhile, B.Blum and N.Crowder divided educational goals into three areas: cognitive (requirements for mastering the content of the subject of study) psychomotor (development of neuromuscular activity) and affective (emotional attitude towards what is being studied). The first taxonomy covering the cognitive field in teaching methodology includes six categories of learning goals:

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knowledge (concrete material, terminology, facts, definitions, etc.;

criteria and understanding (explanation, interpretation, extrapolation);

Application: (Application)

analysis (relationship, construction principles);

synthesis (development of a plan and a system of possible actions);

assessment (summary based on available data, conclusion based on external criteria)

Based on Blum's taxonomy, L.S. Ilyushin has developed a constructive set that allows you to create tasks of varying degrees of complexity, including those that offer the involvement of knowledge from several learning tasks.

Educators and psychologists in Uzbekistan O.Rozigov, B.Farberman, R.Khjurayev, E.The gozievs studied the issues of cognitive processes that affect the effectiveness of Education, which has perarchic organization. In their works, they give examples of assignments for students in different fields of science, according to the results of which it is possible to assess student learning at different levels. E.Goznev believes that teaching and learning is more than just thinking. It also includes the feelings, beliefs of students and teachers, as well as the social and cultural situation in the classroom.

The method of determining the educational goals proposed by proponents of pedagogical technology is characterized by the fact that it has a high level of clarification. The educational goals are expressed in the student's reliable measurement and behavior, which can be learned from the outside, and they are formed through the results of training. At the same time, it will also be possible for a teacher or expert to accurately track and evaluate these actions of students. Of course, this effective idea initially met with a lot of resistance. by what method can the result of training be transferred to student actions? How to maintain a strictly identical meaning in this transfer? Let us note that such problems are solved mainly by the following two different methods.

1. It is necessary to create such a system of educational goals, within which the sequence of categories and levels of educational goals is clearly defined. Such a system of educational goals is called pedagogical taxonomy.
2. To express learning goals, it is necessary to find such a clear and understandable language that the teacher clearly represents the goals through this language.

Hence, the above-mentioned clarification of the definition of educational goals is considered one of the first, most important aspects of pedagogical technology, which is fundamentally different from the usual methods of teaching.

The extremely clear definition of training goals makes it possible to clearly control the achievement of it. This, in turn, means determining the degree of development of the student's personality and the shortcomings of the teacher's activities in a timely manner and eliminating them.

V. As noted in Ocon studies, there are three different approaches to the definition of pedagogical goals:

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a) pedagogical goals are expressed through the description of one or more educational goals, but they are not classified into categories;
b) educational goals are divided into categories, the details of which are described in writing. A clear example of this is the definition of the educational, educational and Personality Development Goals of training, which are widely used in the pedagogy of the CIS countries. When training goals are expressed in this way, goals are convenient to compare, ensuring that the activity is oriented towards achieving these goals, but there will be no opportunity to have a holistic idea of achieving them;

v) the clarification of educational goals, their separation into separate parts, which is widely popular in World pedagogy. Based on such an approach, it is possible to accurately measure the achievement of each individual part of the educational goals. By creating a system of training goals, they are placed in a sequence of correlations, that is, their taxonomy is compiled.

For the first time, US scientists paid attention to the compilation of pedagogical goals according to such a scheme. After the Second World War, a group of educators and psychologists of the committee for the admission of entrance examinations to colleges received a diploma of the famous psychologist B. Under Blum's leadership, they conducted many years of research on the strict representation and ordering of pedagogical goals.

In 1956, the first part of"taxonomy" went out of print. It described the expression of educational goals in the cognitive (cognitive) field. This system of educational goals has become popular on a large scale. They began to use it in the planning and evaluation of the result of training. It was considered the main weapon in the experimental assessment of system-science (courses).

Areas of personality activity in accordance with educational goals. (Cognitive, Affective, psychomotor). We B.Let's talk about the content of Blum's taxonomy and how it provides practical support for the teacher. First of all, let's describe the areas of personality activity that are in accordance with the educational goals.

1. Cognitive (cognitive) field. This involves solving problems ranging from recalling the material read and telling it repeatedly, to fully understanding the acquired knowledge and visualizing them in harmony with the previously studied methods of Idea, style and action, and acquiring knowledge.

Expert assessment and B.Blum and his staff noted that a survey of teachers found that most of the academic goals in literature analysis, programs, textbooks, teaching practices pertain to the cognitive field. But nevertheless, it should be recognized that there are also some shortcomings in the taxonomy of Blum. First of all, it should be noted that important didactic factors bypass the concepts of skills and competencies. Blum uses these concepts but does not develop them, nor has the problem of Creative Thinking been solved, it is in Guilford's taxonomy that he found his full expression. Blum's taxonomy did not reflect" decision-making "and its practical outcome," activity". Also, the categories" analysis "and" synthesis", placed after "understanding". However, in order to have a complete understanding of a system, it will first be necessary to determine the connection

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(analysis) between its parts and them, as well as the organization (synthesis) of integrity, in which order its parts are interconnected. Perhaps in Blum taxonomy, it is necessary to place the categories of educational goals in the following order: information perception, analysis and synthesis, understanding, application, evaluation some of the disadvantages of Blum taxonomy noted above have come to the attention of many new taxonomic creators. But when they have not achieved sufficient success, we refer to Table 1 to compare the achievements and disadvantages of the taxonomies created.

Taxonomies on the cognitive (cognitive) field

1-table

Author	Taxonomic categories					
Blum and others 1956	Know	Understanding	Use	Analysis	Synthesis	Evaluating
Gilford 1967	1. Know 2.Memory		4. Convergent, creativeness	3.Divergent, creativeness		5. Evaluating
Mak Gur 1969	1. Know	2. Generalization	3. Simple solve the problem make	4. Solve a complex problem make	6. Synthesis	5. Evaluating
Gronland 1970	1. Know	2. Understand	3.Use	4. Ability to think		
Vandeveld 1975	1. Know	2. Understand	3.Use	4. Synthesis	5. Creativity	6. Evaluating
D. Xeynot 1977	1.Revision	2. Concept create	3. rules application	4. Divergent, creativeness	5. Problem solving	

This table shows that in some taxonomies, Blum's taxonomy repeats itself or part of it exactly. L. In Vandeveld taxonomy, however, only the category" synthesis "is replaced by" creativity". Some taxonomic creators have also paid special attention to"problem solving". In this direction, Guilford delves deeper into others, distinguishing between types of thought that reflect cases where a convergent problem has several variant solutions. In addition to these two operas,

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Guilford also differentiates between the three factors of human abilities: cognition, memory, and evaluation.

It should be noted that in some taxonomies other than the Greenland taxonomy, thinking is not listed as a separate category, while all authors have circumvented variability such as curiosity and motive. Therefore, they all paid special attention to knowledge, its acquisition and understanding. Only Guilford looked at memory as a variable, with the "creativity" in his taxonomy oriented towards the development of thought. Comparing taxonomies created in the cognitive sphere, it should be especially noted that in this sphere it is not created more perfect than the taxonomy of the Blum.

2. Affective (emotional-valued) sphere. It includes simple perception, from curiosity, directions of values and willingness to master relationships, to goals that shape the student's emotional-personal attitude towards the world around him. among them are the goals of being able to empathize with interest and inclinations, these or that experiences, attitudes towards vocations, awareness of it and the formation of its manifestation in activity. As we have seen in the table above, in modern taxonomies, in order to directly measure the final result, it is necessary to highlight the paths and stages leading to its achievement, that is, to act in the case of "path preference, even if bad". In the affective domain, it is somewhat complicated to distinguish intermediate stages leading to the final result, since in this domain mostly multi-variant (divergent) variables are valid. D. Kratvol, V. Blum & amp; B. The taxonomy that the Masii created in 1956 is considered to be the most successful of their attempts to encompass the goals of the affective (emotional) field in a unique, "procedural" way. Its five existing parts are expressed as follows:

I. Perception:

1) awareness,

2) the desire to perceive arises and or be ready for it,

3) optional attention.

II. Impact response:

1) respond in a subordinate way,

2) voluntary response,

3) to generate satisfaction in responding to the effect.

III. mastering valuable directions:

1) acceptance of value orientations (emergence of thought),

2) preference for value orientations,

3) loyalty to valuable directions, trustworthiness.

IV. Organization of valuable directions:

1) assessment of one's own attitude, the creation of a system of valuable directions.

V. valuable directions or the reflection of a set of them in activity:

1) give general instructions,

2) full mastery of valuable directions and their reflection in activity.

This taxonomy reflects the aesthetic roots in the environment or works of art by

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the subject, their influence by response (II) to be absorbed into his mind (I), assessment (III) and the organization of this assessment (IV)- a system of valuable directions and the ability to choose a worldview (V). Two general levels can be distinguished, which are clearly expressed here:

1) the degree of readiness to choose to respond to an effect and its acceptance,

2) full mastery level. It covers the assessment, organization and strengthening of the value direction.

The authors used "internalization" - the concept of mastering a behavior at first superficially, and then feeling it to the fullest, when creating such a structural structure of an emotional process. as a result of such, gradual, increasingly elevated and assimilated values, they become a solid trust. A clear example of this is the gradual education of the youth of Uzbekistan in the spirit of independence ideology and national values. Taxonomies on the affective domain were also created by several scientists (Wilson, Williams, Gronlund, Smith) after 1964. But they were unable to make significant changes to Kratvol's aforementioned taxonomy. While this is the case, there are also some flaws in Kratvol's taxonomy. In particular, it did not contain the inner experiences of the subject in generating aesthetic and moral satisfaction. This is the case of the Polish-philosopher R. It was identified in ingarden's research in 1957.

3. Psychomotor (action-related) field. This area includes the goals related to the formation of manipulation (rapid and agile change of directions of movement), coordination and control (coordination) of the neuromuscular muscles in one or another movement (motor) activity. It covers only a very small part of the educational goals in high school. Among them are the qualifications of writing, oral speech and the qualifications in the framework of physical education and labor (professional) education. But it is these goals that make up the goals of the process of teaching students a profession in vocational colleges. The taxonomies created regarding the psychomotor Sox are listed in Table 2.

Of the four taxonomies shown in the table, the taxonomies of Simpson and Beldwyn are almost identical. In them, the first stage of activity is thought perception, which leads to a thoughtful and emotional adjustment in the second stage, and, in the third, to an activity under the guidance of someone. In the fourth stage, ultimately refers to the automated activity that allows the formation of the activity that is concentrated as a result. Dave omits the first two steps, and considers copying to be an early step in automating and fully mastering the character. In the Bruner model, perception is ignored, activity is ensured by the adaptation of the nervous system after the choice of intentions, followed by the full Organization of activity by Information Awareness.

Taxonomies concerning the psychomotor domain.

2-table

Author	Taxonomic categories

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Simpson 1966	1. Perception	2. Readiness for action	3. Managed activities	4. Automation	5. Integrated activities
Dave 1969			1. Copy get 2.Manipulation	3. Precision 4. Coordination	5. Automation, complete takeover
Beldwin 1971	1. Perception	2. Tuning	3. Managed activities	4. Mechanism	5. Integrated activities
Broner 1973 yil		1. Niyat		2. Adaptation of the nervous system	3. Activity model

The creation of a strict and reliable system of educational goals cannot be considered an abstract (abstract) task that is of interest only to theoretical scientists. Creating a clear, orderly and hierarchical series of goals is essential, above all, for practicing educators. The reasons for this are as follows:

1. Focus on the main goal in the learning process. The teacher, using taxonomy, can determine not only educational goals, but also the main tasks, the order and course of his further activities.

2. Accuracy and transparency of teacher and student collaborative activities. Specific learning goals provide an opportunity for the teacher to explain, discuss the main areas of their overall activities to students, and to ensure that they are clear and understandable even to individuals of voluntary interest (parents, Examiner).

3. Creating a training performance assessment template (etalon). Educational goals, clearly expressed through the results of activities, make it possible to assess them reliably and holistically. Such a benchmark does not have to be created only by the teacher. It will also be desirable to create it in cooperation with students (Democratic).

CONCLUSIONS

Hence, the taxonomy of educational goals arose as a result of fundamental Research in World pedagogy. It has been noted as the most advanced way of setting training goals. Taxonomic structure is considered one of the important factors in increasing the effectiveness of the activities of both theoretical scientists and practicing educators. To what extent the educators of Uzbekistan will take this method faster, they will have made such an accelerated contribution to the harmonization of the educational system of our republic with their advanced experience of World pedagogy.

In summary, B.With the help of Blum taxonomy, the teacher manages not only to clarify the educational goals, but also to place them in a coherent

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sequence. Such an expression of educational goals provides an opportunity for the teacher to explain to students, the state of their cognitive activity, to encourage this activity to take a clear direction towards the final result. This means that mastering monitoring occurs. This also makes it convenient for the compilers of the taxonomic test tasks to determine the elements of the educational material in which category of educational goals they comply. The application of this taxonomy allows for the creation of test assignments at levels where identifiable learning goals cannot be determined, representing them in a relatively generalized form. Or, it is possible to first determine the educational goals in a more general form by taxonomic categories, and then select a verb that corresponds to them and expresses the final result more closely, and then draw up test assignments.

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