

## A NEW TECHNOLOGY FOR ASSESSING OR TESTING STUDENTS' KNOWLEDGE OF BLOOM'S TAXONOMY

**Toleu Karimzhan**

Khoja Ahmet Yassawi International Kazakh-Turkish University, master-teacher

toleu.karimzhan@ayu.edu.kz, Turkestan, Kazakhstan

ORCID ID: <https://orcid.org/0000-0002-3461-1876>

**Alyk Shattyk**

Khoja Ahmet Yassawi International Kazakh-Turkish University, Biology educational program

2<sup>nd</sup> year student, Turkestan, Kazakhstan

### Abstract

It is known that education is a complex process that goes through many stages. Including the definition of the transfer of knowledge and the degree of their assimilation, i.e. the assessment of the student's knowledge can be considered the main thing.

**Keywords:** National Unified Test, Benjamin Bloom, taxonomy, student, pharmacology, drug tropafen, drug atropine,  $\alpha$ -adrenoblocker,  $\beta$ -adrenoblocker, Kurdish ether, Kurdish alcohol.

Bloom, Benjamin (eng. Benjamin Bloom) (1913-1999) was an American psychologist who studied teaching methods, a system educator, called "Bloom's taxonomy".

In 1942, he defended his doctorate at the University of Chicago. In 1965-66 he was president of the Association of Enlightenment Researchers. In the 1960s, B. Bloom published two monographs that formed the basis of the concept that later became known as "Bloom's taxonomy": "stability and change of human characteristics" and "classification of knowledge goals".

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Taxonomy is the classification of specified objects according to certain criteria and principles in order to build their hierarchy (sequences, sequences in a certain structure). The taxonomy is based on the fact that not all goals and learning outcomes have the same meaning, value.

Of the proposed methods, currently the most widely used test is prepared using the technology "choose one of 5 answers" or "choose one of 5 answers", such test tasks are widely used in universities, secondary schools, the National Unified Test Center (Ultyk), etc. I believe that test tasks prepared in this way cannot fully determine the level of knowledge of students, high school students, they choose from a crowd of students, students whose level of knowledge corresponds to a predetermined milestone, that is, the true level of knowledge of a student or student is not determined.

Using a General Test, we can determine whether a student (student) is a known subject, phenomenon, or:

- systematically, with a full degree of assimilation;
- logical thinking of the student (student) when performing tasks;
- actions in its implementation.

We evaluate the obtained theoretical knowledge and practical skills and the ability to use methods.

So far, with the help of test tasks prepared using the "choose one of 5 answers" technology, it is impossible to systematically determine such indicators.

Our research has revealed that the main cause of these shortcomings is the technology of test preparation, i.e. we have made sure that in order to get rid of these shortcomings, it is necessary to change the preparation of test tasks and switch to new technological actions.

In 1956, Professor Benjamin Bloom from the University of Chicago proposed that a student in the assessment of knowledge together consider the student's ability to memorize the main features of an object or phenomenon, fully understand it and apply this pattern.

It is not yet possible to systematically determine such indicators with the help of test tasks prepared using the "choose one of 5 answers" technology, i.e. with the help of a student's answer it is impossible to determine how correctly he understands the phenomenon, to use it.

Given these circumstances, it is necessary to switch to a new technology for preparing test tasks, i.e. to create a test showing that a student can only remember a phenomenon, that he has a deep understanding of the phenomenon, that he can use this knowledge or regularity.

6. the new test method makes it easy to solve these problems systematically; systematically organize the questions asked and the answers to them.

The proposed new method is the so-called step test. It is something like what a teacher asks a student for a sabak, test questions are presented in the form of tightly connected steps (blocks) 6ip 6, the corresponding answers are also stepwise and allow you to fully generate 6ip Takur to the test task (question) 6ip. Thus, we achieve the full mastering of the topic by the student.

The answers of the test question at the 6th stage (both ideally and in case of an error) will be ejaculated by the next question, which will continue further analysis of the question under consideration, and its answers (both ideally and in case of an error) will be located at the second stage, which, in turn, will be ejaculated by the following a question clarifying the question in the takyrtype, and his answer will be posted at the next stage, which is also with the question, thus, in the form of a step-by-step "answer-question", the topic will be fully covered. The most important feature of this test is that all the stages are presented to the student in the form of a 6ip test, inseparable from 6ip-6[2-4].

The student composes an answer that fully satisfies the given question, writing down the correct answers at each stage in 6ip 6. The correct answer to the test will be the only one, and its exact definition can only be given by a student who has fully mastered the test. Such a test does not give a pre-prepared answer template, the student himself makes up the answer to the test task. If a student incorrectly answered question 6ip of the test at any stage, and did not correctly answer question 6ip of the test at another stage, the final answer does not count because he has not mastered the element 6ip of the topic.

Also, this method allows you to describe a test question in numerical form, depending on its

complexity (complexity). It will directly depend on the number of steps (blocks), as the number of steps increases, it will be even more difficult to build the correct answer. The complexity of the test is roughly described as "n". If  $n = 1$ , then the test answer consists of answers consisting of 6 stages, which include a test compiled using the "choose 6 out of 5 answers" technology, if  $n = 3$ , then the test answer consists of answers consisting of 3 stages.

The main advantages of a multi-stage test:

- only a student who is fully proficient in the topic will answer the test questions correctly;
- the whole topic can be entered into the test task 6ip;
- according to the test results, it is possible to determine how deeply the student has mastered the topic;
- allows you to control the behavior of the student's IP when performing a test task, logical thinking;
- facilitates the preparation of test tasks in complex subjects that "do not lend themselves" to the preparation of test questions;
- the student himself composes a test answer the rate of random determination of the answer to the test task is very low.

In order to show the advantages of the "step-by-step" method of creating a test over the most common nowadays method "choose 6 answers out of 5", it is enough to make test tasks on the topic 6ip using two methods side by side and knowing and owning the data highlighted in bold italics in takyr.

As an example, consider this fragment from the discipline of pharmacology (Harkevich, Pharmacology, 2004, p. 108).....Tropafene refers to the complex ether of Tropine. It has high  $\alpha$ -adrenoblocking activity and somewhat atropine-like properties, thereby reducing blood pressure and causing tachycardia.....6ipi of desired  $\alpha$ -adrenoblocking effects - peripheral vascular dilation.....

1 test (memorization)

Tropafen -

refers to the Kurdish ether of Tropin.

refers to the simple ether of Tropin.

refers to the complex alcohol Tropin.

D.....refers to the kurdeli ether.

2 test (understanding)

Tropafena

has high  $\alpha$ -adrenoblocking activity and somewhat atropine-like properties.

it has high beta-adrenoblocking activity and somewhat atropine-like properties.

it has moderate beta-adrenoblocking activity and high atropine-like properties.

D....

E.....

3 test (application)

Due to some tropafen casietes, it .....

lowers blood pressure, causes tachycardia.

increases blood pressure, causes tachycardia.

increases blood pressure, causes arrhythmia.

D.....

E.....

4 test (collision)

As a result of the  $\alpha$ -adrenoblockatory action of tropafen ....

A. peripheral vessels dilate.

B. only the venous root

expands. C. only the aorta

expands D. dilate all vessels

EI only the vein and aorta expand.

Now, from this fragment of the topic, we will make a test task for the new technology. All the conditions of Bloom's taxonomy are met here, in the yagni 6ip test task it is stipulated that the student must remember takyrym or picking, understand it and use 6.

Tropafen -.....

A. refers to the complex ether of Tropine, as well as to its....

B. refers to the simple ether of Tropine; therefore, its....

C. refers to the complex alcohol of Tropine, therefore its....

1. High  $\alpha$ -adrenoblocatory activity and several atropines

have such a property as, so it is and there is ....

$\beta$ -adrenoblocatory activity and a certain amount of atropine

, it has the same properties as it....

moderate  $\beta$ -adrenoblocatory activity and high atropine

, it has the same properties as it....

I. lowers blood pressure, causes tachycardia. Because...

II. increases blood pressure, causes tachycardia. Because...

III. reduces blood pressure, causes arrhythmia. Because...

01. it dilates the vein

02. dilates the marginal veins.

03. it only dilates the aorta.

The full answer to the test task: A, 1,1, 02 (the correct answer is indicated in italics). How did this answer dry up? Let the correct answer C at the first stage of the test question, given in

accordance with the above order, be "A", and in the continuation of this answer we will determine only the answer "1", which will complement the answer "A" from the stage of the eksp, from the third stage - I), from the fourth stage - 02). Thus, the complete answer of the problem is determined.

Not all such other answers are counted due to an error or incompleteness. Since the answers are given according to a well-known system, it can be noticed that the student has fully mastered the given topic, and the presence of a very large number of answer options ensures that it is not accidentally disclosed.

In our opinion, the test tasks should be 2-3-step, and taking into account the fact that the answers to the multi-stage test are complex, they should be used in the selection of applicants entering elite educational institutions, as well as undergraduates, doctoral students or civil servants.

Depending on the complexity of the test, it is necessary to take into account the presence of each correct answer. For example, if traditionally "1 Correct out of 5 answers" ( $n = 1$ ) is considered 1.0 point for each correct answer of the test, then for each correct answer compiled stepwise according to the new method, it follows that each correct answer of the test  $N = 2$  steps is equal to 2.0 points, and the test in which  $n = 4$  a step equal to 4.0 points to the student for each correct answer seems to be worth giving.

There are also similar forms of conducting tests, in which the method of constructing a chain test can be brought by the famous testologist V. S. Avanesov, 6 but such test tests are not related to 6ip 6, which is why the final score may be positive, despite the wrong answer to 6ip-two questions in the chain [5,303-108 s].

In the process of gaining experience, I noticed that during the lesson, children effectively use their knowledge, openly express their thoughts, and are dissatisfied with their assessment skills. They do not rely on their own personal experience when they provide evidence. Often explanations are only in the volume of the textbook. Accordingly, I took my class to study. Studies show that most students memorize less than 10% of information, store 20% of information during audiovisual perception and up to 30% during presentation, 50% during discussion, save 75% when experimenting and 90% when teaching others. In this regard, "if you tell me, you will forget, if you show me, you will remember, you will learn to do for yourself." a proverb of the great thinker Confucius comes to mind.

That is, I understand very clearly that the child does not need to adapt to what he is ready for, but to create conditions for independent work. Students who are usually critical thinkers become more active, they ask questions, analyze evidence, consciously use strategies to determine meaning; they study oral, written, visual evidence. In order to analyze the results of the study, I propose to the class "is it possible to improve the speech skills of students with the help of tasks compiled according to Bloom's taxonomy in group work? What is the effectiveness of classes?" I was looking for answers to questions. I took my class for research. The students in the class have different character traits. In order to create an atmosphere of cooperation, I have introduced methods of group work. I based my short-term plan on tasks compiled according to Bloom's taxonomy.

Critically thinking students are active, ask questions and analyze;

- be able to prepare records of geometric shapes in space (rectangular parallelepiped, cube) and make their models. When turning left and right, he could explain the changes in the position of spatial figures when viewed from above and from the side. In the group, the guys

were able to organize work, discuss the knowledge gained in the pair and explain it to the next student. Students began to actively participate in classes. For example: a student who received a study could play more freely in a group than alone.

A socialized competent personality capable of using the acquired knowledge in life is summed up, a student who has effectively used B. Bloom's goal-setting technology has formed a critical attitude to himself "I am a creative person".

## References

1. Avanesov VS Theoretical bases of development of the test in the test form. M Mosestech Sac. Kosyigian, 1996. – p.95.
2. Bayzakov U.A. Baizakova: The newest technology in the field of testing tests. Multiple test. Вопросы тестирования в образовании (РФ) 2004, № 10. pp.35-41
3. Bayzak U. The result of a single unified test is the multiplier of the candidate knowledge will be. // The newspaper "Egemen Kazakhstan", 11.08.2010 Page 3.
4. Bayzak U., Bayzakova B. The newest technology to create a tough, hard-to-remember test: one-step test.// "Medicine and Ecology". Materials of III Central Asian International Scientific and Practical Conference. KarSU, 5-6 October, 2015. pp. 108-111
5. Avanesov B.C. Composition of test spots. -М.: Center for testing, 2002. p. 240.
6. Voronov GG Common pharmacology. Минск «Вышайшая школа», 2003. p. 25.