THE TEST AS A QUALIMETRIC TOOL TO ASSESS THE QUALITY OF STUDENTS' KNOWLEDGE

Yunusova Gulnoza Abduxalikovna
PhD., associate professor,
Department of Natural Sciences of the Academy of the
Armed Forces of the Republic of Uzbekistan
gulnozaunusova653@gmail.com

Abstract: Evaluation is a process of cognition of the value of an object of reality, its significance for the life of society or a personality, which involves the establishment of a degree of standards' quality between its purpose and result. In the education system, assessment can be considered as a system-forming component of learning quality management, which consists in establishing feedback between the teacher and the student.

Key words: Evaluation in educational activities, form of a mark, educational activity, quantitative character, qualimetric approach, quality of objects, pedagogical qualimetry, groups of learning outcomes, difference in the degrees, exit testing, auxiliary (corrective) control, current and boundary control.

Introduction. Assessment allows you to identify the specifics of the educational process and get information about how the learning outcomes meet the established requirements, that is, the requirements of the educational standard.

In science, there is a so called concept of the evaluative basis, as well as the principle of its organization as "a set of ideas about the degree of expression of any property of objects and phenomena, which is "accumulated" in the process of socialization and in individual experience of interaction with objects and phenomena attributed by the subject to the same class, and which is vaguely ordered according to the principle of superiority in severity of this property in the process of "naive scaling"" [2].

Materials and methods. According to B.G. Ananyev, evaluation in educational activities performs two main functions: orienting and stimulating. In the orienting function, evaluation acts as an indicator of the results achieved by the subjects of the educational process. The stimulating function of evaluation is associated with the volitional sphere of personality, when changes cause significant shifts in the perception of the subjects of the process and learning outcomes, its self-assessment, behavior, methods of activity and the system of relations between various participants in the

educational process. Under the influence of these shifts, qualitative transformations take place in the structure of personality and activity of the subjects of education [1].

Various forms of assessment can be implemented in the education system. More often, teachers turn to a formalized assessment, which is presented in the form of a mark expressed by a sign or figure. Less often they resort to forms of informal assessment in the form of praise, censure, etc. Usually a mark is put up for some kind of educational activity. The student strives to get a higher mark, but at the same time considers it the end result of this type of activity and most often loses interest in it.

This form of evaluation is the simplest and has a quantitative character. Formative assessment is more difficult (non-marketed), it is of an analytical qualitative nature and gives the student the opportunity to see their strengths and weaknesses. When analyzing studies in the field of evaluating learning outcomes in the professional education system, it becomes clear that the evaluation system is usually oriented either on the process of educational activity or on its result. In both cases, this does not contribute to the integrity and productivity of the evaluation process, on the contrary, it leads to its disunity, fragmentation. There is a need to integrate these approaches, which will allow us to look at this process as a system of interaction of subjects of educational activity using its organizational and methodological support, that is, methods, technologies and procedures for evaluating learning outcomes provided with qualitative assessment tools and scales for measuring learning outcomes, which will allow us to adequately assess at what level the existing educational standards of competence of future graduates.

At the present stage, the qualimetric approach is considered as one of the productive approaches to assessment, the essence of which is to implement the ideas of qualimetry to solve the problem of evaluating learning outcomes.

Qualimetry - as a field of scientific knowledge deals with the quantitative description of the quality of objects. Its goal is to develop and improve techniques that would allow determining the quality of a certain object or object by one number. This number characterizes the degree of satisfaction by the object of any need (personal or public). Qualimetric tools make it possible to evaluate both the quality of objects or objects, and the quality of labor, etc.

The essence of quality measurement in qualimetry is that for each type of product or service, its specific quality levels are taken into account, a quality standard is selected, with which the achieved quality is compared. At the same time, the quality may correspond to the standard, be higher or lower than it.

Qualimetry is divided into two branches - theoretical and applied. Pedagogical qualimetry has become an independent direction relatively recently. The issues of pedagogical qualimetry were laid down in the works of S.I. Arkhangelsky, I.B. Itelson,

V.P. Mizintsev, etc. In the pedagogical literature, qualimetry is considered as a quantitative assessment of the quality of learning, the theory of measuring quality attracts the methods of sociological qualimetry; in mathematics, it borrows the methods of statistical measurement and other sciences. The emergence of pedagogical qualimetry is also connected with the problem of the quality of education, which is widely considered at the present stage.

For the considered direction of qualimetry, a number of features are distinguished: informativeness includes exhaustive descriptions about the object of research; optimality is expressed in calculating the time spent on conducting research when taking into account and choosing the most reliable and technological methods; accuracy, by a combination of metric, logical-mathematical and semantic components of scientific accuracy; evidence is manifested in the representativeness of the material obtained as a result of observation, step-by-step control of the results, taking into account the possibility of adjusting the next stages of the study; manufacturability, expressed in the presence of algorithmic of the process and research methods [4].

Result and Discussion. The subject of pedagogical qualimetry is quality, considered as a means of identifying compliance with the current educational standard. Since the quality of training is considered by us as a ratio of goal and result, it is largely quantifiable. According to this approach, the main problem is the development of indicators and measurement technologies in the same units of the goal that is set for students and the learning result they have achieved.

Among the groups of learning outcomes (quantitative, expressed in absolute values; relating to the internal experiences of the subject, etc.), we will highlight the results that are determined qualimetrically, that is, qualitatively, descriptively, in the form of a point scale, in which each point must correspond to one or another level of manifestation of a certain quality, while each level must be described.

Scale (from lat. scala – ladder) is a numerical system where the relations between the properties of an object are expressed by the properties of a numerical series. The quality of intervals or relations between them are numerically determined in the measuring scale. At the same time, the content can also be an educational area - subject, psychological, etc. Measurements can be carried out at four levels. Each level has its own scale: a scale of names (nominal); a scale of order (rank); an interval scale; a scale of relations.

The main purpose of the nominal scale is to distinguish objects by the presence or absence of a feature, it is used to classify objects. An example of such scaling is quality certification. The ordinal (rank) scale is used to compare and establish the "more - less" relationship. It allows you to detect differences in the degree of severity of a particular property in objects. The interval scale is formed on the basis of the ordinal scale by

assigning numerical equivalents to its divisions. The intervals between objects can be measured, so it is possible to determine not only the signs of the properties of objects, but also the quantitative difference in the degrees of their properties. A typical example is "scale" scores in achievement tests.

The main directions of the use of test didactic materials are highlighted:

- entrance testing (allows you to judge the degree of students' preparing, the presence of gaps in knowledge; plan a program of work with both the student and the student to meet the requirements of the state educational standard);

Table 1

ENTRANCE TEST

1. $\int \frac{dx}{1+x^2}$	A. $-ctgx + C$
2. $\int 4sinxdx$	B. 1
3. $\int \frac{dx}{sin^2 x}$	C. $\int \frac{dx}{\sqrt{x^2 \pm 1}}$
4. $sin^2 x + cos^2 x$	D. $\begin{cases} arctgx + C, \\ -arcctgx + C \end{cases}$
5. $ln\left\|x + \sqrt{x^2 \pm 1}\right\| + C$	E. $-4cosx + C$

Table 2

CURRENT CONTROL

1. $\int \frac{Adx}{x-a}$	a) $Aln\|x-a\| + C$ b) $Aln\|x+a\| + C$ c) $ln\|x-a\| + C$
2. Define the simplest rational fractions	a) $\int \frac{(x-a)^k dx}{x-a}$; $\int \frac{Adx}{(x-a)^k}$; $\int \frac{Ax+B}{px+q}dx, (D<0)$; $\int \frac{Ax+B}{(x^2+px+q)^s}dx, (s \geq 2, D<0)$; b) $\int \frac{dx}{x-a}$; $\int \frac{Adx}{(x-a)^k}$; $\int \frac{B}{px+q}dx, (D<0)$; $\int \frac{Ax+B}{(x^2+q)^s}dx, (s \geq 2, D<0)$; c) $\int \frac{Adx}{x-a}$; $\int \frac{Adx}{(x-a)^k}$; $\int \frac{Ax+B}{x^2+px+q}dx, (D<0)$; $\int \frac{Ax+B}{(x^2+px+q)^s}dx, (s \geq 2, D<0)$;
3. $\int \frac{8dx}{(x-4)^5}$	a) $-2(x-4)^{-4} + C$ b) $2(x-4)^{-4} + C$ c) $-2(x-4)^4 + C$
4. $\int \frac{dx}{x^2-6x+14}$	a) $\frac{1}{\sqrt{5}} sin\frac{x-3}{\sqrt{5}} + C$ b) $\frac{1}{\sqrt{5}} arctg\frac{x-3}{\sqrt{5}} + C$ c) $\frac{1}{2\sqrt{5}} arctg\frac{x-3}{\sqrt{5}} + C$
5. separate a full square from x^2+px+q	a) $(x+\frac{p}{2})^2 - q + \frac{p^2}{4}$ b) $(x+\frac{p}{2})^2 + q - \frac{p^2}{4}$ c) $(x+\frac{p}{2})^2 + q + \frac{p^2}{4}$

- exit testing (provides a real opportunity for an objective assessment of the results of the student and teacher's work, determining the effectiveness of the educational process and the didactic systems used, teaching and development methods) (Table 1);

- auxiliary (corrective) control of knowledge acquisition allows the teacher to find out directly during the lesson how intelligibly, clearly he presents the material, whether the accepted abstraction level is available to the student; to assess the degree of understanding of the educational material and here, in the classroom, eliminate this misunderstanding;
- current and boundary control (with the leading learning function, but not control) (Table 2).

Conclusion. Thus, the modern pedagogical test, created in compliance with all the requirements of the theory of pedagogical measurements, allows not only to obtain objective information about the level of preparedness of students, but also serves as an element of social stability, because it allows you to distribute graduates of educational institutions in accordance with their individual abilities and interests of society.

In addition, testing allows you to simultaneously get information about educational achievements in the entire educational space of the country, for making informed management decisions. Obtaining objective information that is not distorted by the subjective opinion of the teacher is significant for management structures in determining the prospects for the development of society and the functioning of the state. By and large, objective data on the results of training and the level of knowledge of students are the key to the successful development of society and the state in the global civilizational process.

REFERENCES

1. Ананьев Б.Г. Избранные психологические труды. Акад. пед. Наук СССР. М.: Педагогика, 1980. Т.2. - 288 с.
2. Ерунов В.П. Квалиметрическая основа системы качества вуза: монография. Оренбург: Изд-во ОГУ, 2009. - 313с.
3. Викулина М.А. Педагогическая квалиметрия и её роль в определении качества образования. – Вестник ПГГПУ, Психологические и педагогические науки. 2014г. - Серия №1. С. 28-38.
4. G. A. Yunusova. Monitoring the quality of knowledge in the person-oriented education system. - International Conference On Teaching Education And New Learning Technologies 2023/2. ISSN: 2181-3515. 26 January, 2023 Year. P. 641-643.
5. G. A. Yunusova. Monitoring the results of students' collaborative learning. - Science and innovation. – V2 Issue 1, UIF-2022: 8.2 ISSN: 2181-3337. P.294-297.
6. G. A. Yunusova. Tests of control lessons as a type of modular technology that provides monitoring of students' academic progress. – V2, Educational Research in Universal Sciences, 2023.P. 292-295.