

QUALIMETRIC APPROACHES IN ASSESSING LEARNING ACHIEVEMENTS

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Annotation: This article considers the role and importance of qualimetric approaches in the process of assessing learning achievements. Qualimetric approaches allow for an accurate, systematic and objective assessment of students' knowledge, skills and qualifications. The study extensively covers the theoretical foundations of qualimetric approaches, assessment criteria, indicator system, their application in practice and impact on results.

Keywords: Qualimetric approach, learning achievements, assessment criteria, pedagogical diagnostics, quality indicators, rating system, modeling.

In the modern education system, assessment of student achievement is considered not only as a means of determining the final result, but also as a means of improving the educational process and supporting the individual development of students. From this point of view, the development and implementation of scientifically based assessment methods has become an urgent issue. Especially in the conditions of today's educational cluster, the issue of objective and impartial assessment of academic achievement is being identified as an important task for achieving efficiency in the activities of pedagogical specialists and reflecting on the results.

Pedagogical qualimetry is a scientific approach aimed at assessing the quality of education and the effectiveness of pedagogical activities, which is formed and develops in close connection with state policy. In particular, regulatory legal acts adopted in recent years have increased the relevance of this area and served to expand its scientific and practical foundations. The Resolution of the President of the Republic of Uzbekistan No. PQ-4310 (May 19, 2021) - "On measures to improve the system of assessing the quality of education and increase the effectiveness of pedagogical activities" serves as an important legal basis in this regard. This resolution establishes priority areas such as monitoring the quality of education, evaluating the performance of teachers based on ratings, and determining compliance with state educational standards. This further increases the relevance of research based on qualimetric approaches.

It is worth noting the relevance of this issue in light of the need to scientifically substantiate the need for quality education at the state level and analyze the effectiveness of education through qualimetric indicators.

The qualimetric approach to assessing academic achievement is a method that is distinguished by its accuracy, objectivity, and systematicity. The qualimetric approach involves assessing student performance based on established criteria and indicators, rather than the subjective opinions of the teacher. The term "qualimetric" is derived from the Latin words "qualitas" (quality) and the Greek "metria" (measurement), and means "measuring quality". The qualimetric approach was initially used to determine the quality and effectiveness of products in technical fields. Then it was adapted to the education system and began to be used as an important tool in assessing the quality of the educational process and determining the effectiveness of pedagogical results.

Qualimetric approaches are a set of scientifically based methods used to assess and monitor the quality of education. With their help, the teaching process, pedagogical activities, educational resources or student achievements are analyzed based on specific, measurable criteria. The following are the main types of qualimetric approaches and their descriptions:

1. Expert approach

In this approach, the assessment is carried out by qualified specialists (experts).

Advantages: in-depth and qualitative analysis; comprehensive approach.

Disadvantages: high probability of subjectivity; depends on the experience of the assessors.

2. Rating approach

A general result is obtained by assigning a score or rating to each criterion.

Advantages: there is an opportunity to compare results.

Disadvantages: if the criteria are chosen incorrectly, the results may be unreliable.

3. Matrix approach

In this approach, the assessment criteria are placed in a matrix according to two or more dimensions (for example: quality + quantity).

Advantages: multi-criteria assessment capability.

Disadvantages: complexity, requires processing a lot of information.

4. Indicator-based approach

In this method, assessment is carried out based on predefined indicators (indicators).

Advantages: objectivity; availability of clear and measurable indicators.

Disadvantages: indicators reflect only quantitative results, qualitative aspects may be ignored.

5. Complex integrative approach

In this approach, several methods are used together (for example, expert assessment + statistical analysis).

Advantages: complete and reliable assessment.

Disadvantages: resource and time-consuming.

6. Normative approach

In this method, the quality of education is assessed by comparing it with predefined standards, norms or state requirements.

Advantages: clear and norm-based assessment.

Disadvantages: limits creativity and flexibility.

In addition, the **qualitative monitoring approach** is considered one of the most acceptable approaches to a consistent and systematic analysis of the educational process, as well as to the planned organization of education and upbringing management. Qualimetric monitoring is a diagnostic methodology related to studying the compliance of schoolchildren with spiritual and moral requirements and obtaining information about the level of upbringing from quarter to quarter, from one academic year to another. The relevance of this qualitative methodology is that it focuses on monitoring the qualitative and quantitative changes in educational work organized in general education schools and timely identifying and eliminating problems such as deviations from the goal or interruptions in educational work. This, of course, makes it necessary to approach educational work with a qualitative approach, just as problems such as studying and eliminating successes and shortcomings in education are solved with a qualitative approach.

This approach has the following advantages:

- provides objectivity;
- provides an in-depth analysis of academic achievement;

- allows for standardization of assessment criteria;
- helps to track the dynamics of individual student development.

The essence of the qualimetric approach to assessing academic achievement

Academic achievement is the sum of the knowledge, skills and qualifications mastered by the student. Through the qualimetric approach, these achievements are assessed on the basis of criteria and indicators. In this case, a certain weight coefficient is attached to each indicator, and the overall result is calculated based on these coefficients.

Qualimetric assessment stages

The qualimetric assessment process is carried out in several stages:

1. Determining the system of criteria

Evaluation criteria are developed taking into account the specific aspects of each subject. For example: completeness, logicity, independence and practical application of knowledge.

2. Determining indicators and converting them into a scoring system

Specific indicators are determined for each criterion. These indicators are expressed in points (for example, from 1 to 5 points).

3. Assigning weight coefficients

Each criterion is assessed with a weight coefficient depending on its importance.

4. Calculating results

The points accumulated for each criterion are multiplied by the weighting coefficient and the total score is calculated.

5. Analyzing and making recommendations

Based on the results, the student's level of development is determined and further development strategies are determined.

Example: Qualimetric assessment model in mathematics

Criteria Indicators Points Weighting coefficient

Completeness of knowledge Correct and complete solution 0–5 0.4

Logical thinking Reasoned conclusions 0–5 0.3

Practical application Solution in real life examples 0–5 0.2

Independence Level of need for help 0–5 0.1

Pedagogical significance of the qualimetric approach

- Diagnostic function: Helps determine the level of student knowledge.
- Developmental function: Determines areas of development.
- Motivational function: Encourages the student to strive for specific results.
- Corrective function: Helps identify shortcomings and eliminate them.

Problems encountered in practice

The following problems may arise when implementing the qualimetric approach:

- Incorrect or general structure of assessment criteria;
- Low level of methodological literacy of teachers;
- Difficulties in systematization and mathematical modeling;
- Limitations related to software.

To solve these problems, it is important to organize special training for teachers, develop assessment programs, and involve experienced methodologists.

In conclusion, all qualitative approaches are a modern, systematic and scientifically based approach to assessing educational achievements, which is an important tool for improving the quality of education. These approaches allow a more accurate assessment of the level of

knowledge of students, ensure the objectivity of assessment, and achieve continuous improvement of the educational process. In the future, it is possible to further increase its effectiveness by digitizing and linking these approaches to artificial intelligence technologies.

REFERENCES:

1. Safarova, M.K. (2016). Pedagogical qualitative assessment as an instrument for assessing the quality of education. — Tashkent: Fan.
2. Vasilyeva, N.A. (2009). Problems of pedagogical qualitative assessment in the conditions of modernization of education. – Diss. Ph.D., Moscow.
3. Kuzina, L.L. (2012). Assessment of the quality of education: a qualitative approach. – M.: Academy.
4. Galimkova, I.A. (2014). Qualimetric methods in the evaluation of educational outcomes. // Journal of Pedagogical Research, No. 2, pp. 45–52.
5. Ravshanov, U.M. (2020). Quality of education and its evaluation indicators. – Tashkent: TDPU Publishing House.
6. Mironova, M.V. (2015). Methods of pedagogical qualimetry in the education system. – Bulletin of Education, No. 3.
7. Resolution of the President of the Republic of Uzbekistan No. PQ–4310 dated May 19, 2021 — “On measures to improve the education quality assessment system and increase the effectiveness of pedagogical activities”.
8. Abdurakhmonova, N. (2021). Quality monitoring and personnel training system in education. // Scientific and methodological journal “Pedagogical skills”, No. 4