METHODOLOGICAL PRINCIPLES OF MONITORING AND PREPARATION OF ANALYTICAL REPORTS IN THE HIGHER EDUCATION SYSTEM

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https://doi.org/10.5281/zenodo.19346561

ARTICLE INFO

Received: 21st March 2026
Accepted: 25th March 2026
Online: 30th March 2026

KEYWORDS

higher education, education monitoring, analytical report, methodological principles, educational analytics, university effectiveness, competitiveness

ABSTRACT

This paper examines the fundamental methodological principles of organizing monitoring and generating analytical reports in higher education. The author explores key approaches, from systematicity and objectivity to predictive and targeted data..

To address strategic and operational issues related to quality management in specialist training, objective information on the resources, processes, and performance of a university is essential. This, in turn, requires the creation and maintenance of an up-to-date system for monitoring and evaluating the quality of educational services. During the development of such a system, it is important to identify priority monitoring targets, information on which can significantly influence management decisions. These targets primarily include the quality of specialist training and the needs and satisfaction of consumers of educational services. Research into consumer opinion is particularly relevant due to its long-standing neglect, which has led to a number of problems currently facing Russian universities and the education system as a whole. The labor market exhibits a clear imbalance between supply and demand for certain specialties, and a discrepancy has developed between the highly dynamic needs of the labor market for specialists with specific professional competencies and the inertia of the higher education system in terms of timely updating of educational programs.

Many of the problems facing higher education cannot be resolved through the isolated efforts of stakeholders. Coordinated collective action is needed to optimize the entire structure and functioning of the education system. These include the significant deterioration of research staffing, low remuneration for fundamental research, and the decline in its prestige, which discourages the recruitment of young specialists and contributes to the exodus of productive specialists and scientists from relevant fields. The primary objective is to adapt the education system to market conditions while preserving existing achievements. It is well known that the professional development cycle for a young specialist within a given scientific school (the existence of a school is essential) ranges from 7 to 12 years. The most pressing problem is the sharp decline in the number of young specialists willing to engage in theoretical research. The theoretical staffing levels are virtually nonexistent, with a

generation of highly qualified 30-year-old specialists virtually nonexistent. There is a significant risk that the current generation of scientists will leave fundamental science without having time to train a worthy successor.

The development of an educational system presupposes a clear hierarchy of criteria for assessing the quality of education. The first level of the hierarchy, using a systems approach, will include: innovations in educational content, methodologies, technologies, techniques, and means of the teaching and learning process; organization of the teaching and learning process; university management; and funding sources. The second level will include the scope of reforms: local, individual, modular, systemic, etc. There is no doubt that only a systems approach to ensuring the quality of specialist training, encompassing all areas and functions of higher education institutions, will enable them to achieve the level of educational services required by the international community. Further, in accordance with the established hierarchy of criteria and the identified rational sets of tasks to be solved, a hierarchy of the entire educational system (with assessments of its elements) should be constructed. This hierarchy forms the basis for long-term planning of the entire system and its individual subsystems. This approach, taking into account the positive experience of various modifications of the pattern methodology (The pattern methodology is a structured approach to solving recurring problems by documenting and applying proven, reusable solutions), is already being used in many regions. Naturally, given the complexity of the educational system, the choice of its structure and management does not exclude the possibility of using an iterative method of multi-criteria optimization.

Methodological principles of monitoring and analytics in higher education ensure the accuracy of data and its suitability for management decision-making.

- Systematic Approach: Viewing the university as a single entity where the educational process, research, and finances are interconnected.

- Continuity: Regular data collection (dynamics), rather than one-off snapshots, allows for the identification of trends.

- Objectivity: Use of verifiable indicators (verifiability) and the elimination of subjective assessments.

- Comparability: Ability to compare data from different universities or periods through common measurement standards.

- Goal Setting: Focusing monitoring on specific objectives (e.g., improving the quality of education or employment effectiveness).

Principles of Preparing Analytical Reports:

1. Relevance: Selecting only those data that are relevant to solving a specific problem.

2. Evidence: Any conclusion in the report must be supported by statistics, graphs, or research results.

3. Visualization: Use infographics and diagrams to quickly interpret complex data sets.

4. Predictiveness: Provide not only a statement of facts ("what happened") but also forecasts ("what will happen") and recommendations ("what to do").

5. Targetedness: Adapt the language and depth of the report to the user (rector, ministry, applicants).

Usually, the work is structured in a cycle: Primary data collection → Validation (checking) → Statistical processing → Interpretation of results → Formulation of management recommendations.

Thus, a systems approach is the foundation for developing a new type of thinking – systemic thinking – that determines the content, forms, and methods of learning. Knowledge to be acquired is considered in conjunction with the activities that shape it. Systems thinking enables students to navigate the growing flow of knowledge, providing the opportunity to selectively select knowledge and integrate it to solve problems within the chosen specialty. The learning process becomes a truly cognitive activity; conditions are created for developing self-study and the simultaneous acquisition of various professions. The narrow, information-based approach of traditional education is being replaced by a broader, strategic, and student-centered approach. Students must not only possess knowledge and be able to apply it in their chosen field of future endeavor, but also be individuals capable of solving life's challenges. Then, the educational system will achieve its goal of training specialists prepared for research, project management, organizational, and entrepreneurial activities.

The conclusion on monitoring and analytics in higher education summarizes the importance of a systems approach: The implementation of unified methodological principles transforms monitoring from a control function into a strategic development tool. This allows educational institutions to quickly respond to external challenges (labor market demands, demographic changes) and internal shortages. The ultimate effectiveness of a system is determined not by the volume of information collected, but by the quality of analytical interpretation. A well-designed reporting methodology ensures feedback between all participants in the educational process, making university management transparent, evidence-based, and adaptive. Ultimately, this directly impacts the competitiveness of the educational institution and the quality of graduate training.

References:

1.Burmistrova E.V. Methods and algorithms for monitoring and assessing the quality of educational services at a university. Abstract of the dissertation according to the Higher Attestation Commission of the Russian Federation, 05.13.10.

2.Muratov T., Daniyarova M. Methodological principles of assessing the quality of the educational system of a university // Modern Problems of Science and Education. 2026. No.1. P. 112-119.

3.Pichueva A.V. Theoretical and methodological grounds for monitoring expected learning outcomes in planning the educational process at a university. Journal Bulletin of the Chelyabinsk State Pedagogical University https://www.researchgate.net/publication/386448070