The role of education quality monitoring in ensuring quality higher education

Abstract

The article shows the necessity of monitoring the quality of education. The main educational criteria of the process of ensuring the higher education (monitoring activities, academic integrity) are highlighted. The essence of the concepts is revealed: monitoring the quality of education (presented in two aspects: first, compliance with specifications or standards; second, compliance with consumer requests). Levels of education monitoring (regional, institutional, international, national) are proposed. The need for continuous monitoring of the quality of education has been proved. Specific stages of education quality monitoring are highlighted. The requirements for the diagnostic tools and main functions (analytical and informational, prognostic, diagnostic, corrective) for monitoring have been submitted. To study the importance of these problem of

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future specialists professional training, methodological approaches (personal, system, competence, activity, benchmarking) have been determined.

Keywords: monitoring, quality, education, quality assurance of higher education, higher education institutions.

Introduction

The XXI century exists under the name: the era of quality. The explanation for this name is that the development and improvement of the education system determine the state of the educational space, and quality has become its main factor. Modernization of the educational space is carried out through significant changes, and innovative transformations in the educational field. There is a change in the content of education and modernization of its results, integration of the non-state sector about the market of services provided to the educational space, etc.

An important argument that brings great benefit in the implementation of monitoring the quality of the educational sector and affects the achievements of students is innovative ways of providing each student of education, by his abilities and needs, with information about his opportunities on the way to employment and the state of educational training and, if necessary, ensuring his by helping or correcting this condition.

The information obtained during the monitoring of the quality of the educational sector will make it possible to: timely and quickly find negative factors in education, prevent the emergence of negative factors, forecast the speed of development of the education system, update and improve such a process and create favorable conditions for future specialists to obtain qualified higher education, because the future of the nation, the future of science, and the future of the country will depend on the level of their competitiveness (Baydatska, 2007).

The purpose of the article. Show the need for monitoring the quality of education to ensure the quality of the educational process. Describe the main functions, approaches, and principles of monitoring.
L. Dovgan et al., (2017) presented in a systematized form the essence of the concepts: quality of education, and monitoring of the quality of education. The quality of education is shown in the following aspects: compliance with consumer requests, and compliance with specifications or standards. A system management model was developed. They considered the management of organizations, described the tools, methods, and principles needed for anti-crisis management.

V. Muradova (2021) developed tools used by students during distance learning and a model for training specialists to increase the effectiveness of monitoring the quality of knowledge through subject-oriented technologies. A diagnostic toolkit for monitoring the quality of education has been developed and requirements for it have been submitted. The main functions of monitoring the quality of education are characterized.

I. Annenkova (2016) developed and tested the effectiveness of the model of professional activity of scientific and pedagogical workers of a higher education institution. The theoretical and methodological principles for monitoring the quality of their professional activities have been developed for scientific and pedagogical workers in higher education institutions.

S. Sadrytska (2011) conducted research that serves as a basis for improving the quality of educational services; devoted research to innovative ways of evaluating the quality of education. Using the examples of individual educational institutions and at the regional and state levels, she showed the possibilities of evaluating the quality of education.

L. Savchenko (2014) theoretically and experimentally approached the study of the problem of training future teachers of technology and drawing; the author shows ways of innovative pedagogical diagnosis of the quality of education. The concept of training future teachers of technology and drawing for pedagogical diagnosis of the quality of education has been developed.

I. Dobroskok (2008) analyzed the problem of the quality of education and showed the importance of assessing the quality of the educational process. The stages of monitoring the quality of education are distinguished: forecasting the development of the monitoring system of the quality of education, assessment of the state of the education system, forecasting the quality of education, and opportunities for regulation for making successful management decisions.

V. Bilokopytov (2013) analyzed the activities of the European Association of Universities. Proved the effectiveness of the formation of the European space of higher education; showed innovative ways of providing education to every student, outlined the activities of the European Association of Universities, and showed the levels of quality assurance in the context of the Bologna process. According to the needs of learners, developing innovative ways to provide each learner, according to his abilities.

V. Zinchenko (2012) outlined the object, subject, goals, functions, tasks, and principles of monitoring; described the possibilities of monitoring the quality management of the educational process of higher education institutions; singled out negative factors for education; proposed measures to prevent the occurrence of negative factors; analyzed the varieties of educational and managerial monitoring.

**Methodology**

To solve the set tasks and achieve the goal, a set of research methods was used: theoretical: analysis of philosophical, pedagogical, psychological, methodological literature, normative documents and dissertations on the topic of research in order to identify the state of development of the problem of monitoring the quality of education in higher education institutions in the modern scientific discourse and taking into account the positive experience that was implemented in the monitoring process; structural and systemic method in order to substantiate the author's approach to the research problem; method of generalization for the purpose of formulating conclusions and recommendations regarding the solution of the problem of monitoring organization; empirical: obtaining knowledge from experience; questionnaires, testing; interpretative and analytical method, study of scientific sources using analysis, synthesis, systematization and generalization; concrete scientific methods: semantic and terminological method for substantiating the conceptual and terminological apparatus of research; scientific method for identifying progressive ideas in scientific works. The named methods complement each other and can provide the possibility of comprehensive knowledge of the subject of research.
The leading idea of the study is to substantiate and develop such a system of monitoring the quality of education to ensure the quality of the educational process, the basis of which is the creation and functioning of a culturally oriented environment, which will be necessary for high-quality professional training of specialists at a strategic level, using modernization, rationalization, and modification of all components of the educational content to ensure the quality of the educational process, will allow to single out the main functions, approaches, principles of monitoring and will contribute to increasing the level of cultural competence of future specialists, will ensure their successful entry into the social and multicultural professional space.

Based on a comparison of own experience, approaches of scientists, theoretical research, and the necessity of monitoring the quality of education to ensure the quality of the educational process is shown, the main functions, approaches, and principles of monitoring are characterized, the ability of an individual to reproduce, perceive, realize, and independently enrich experience in the professional field at a productive level is highlighted. relevant knowledge about the world and national culture based on universal, humanistic spiritual values.

The methodological concept reflects the conceptual connections between the subject, goal, and tasks of scientific research, determines the set of problems, the sequence of their solution, and the theoretical focus on explaining the obtained results of monitoring the quality of education to ensure the quality of the educational process.

At the philosophical level, this concept is based on the doctrine of personality development, determined by a set of social, cultural, and pedagogical influences, taking into account scientific provisions, ideas regarding the foundations of the professional training system; fundamental general methodological provisions of values, dialectical theory of cognition, activity; interdependence and integrity of nature and man; psychological and pedagogical regularities about the external and internal factors of monitoring the quality of education to ensure the quality of the educational process for the professional formation of an individual in the innovative cultural dimension. This level of research covers philosophy, psychology, cultural studies, sociology, and pedagogy, and contains a set of general principles of knowledge, with the help of which it is possible to interpret the basic concepts and categories of research, the justification for monitoring the quality of education to ensure the quality of the educational process; definition of the main functions, approaches, principles of monitoring, psychological and pedagogical conditions, analysis, generalization and synthesis of the studied phenomena.

The general scientific level of the methodological concept of the research is based on a system of approaches that made it possible to specify the content and essence of the researched problem of monitoring the quality of education to ensure the quality of the educational process and to substantiate specific regularities, general didactic and special principles of its formation, namely:

- the competence approach makes it possible to formulate the goal of monitoring the quality of education to ensure the quality of the educational process in the context of the formation of professional competence of future specialists, to optimize the assimilation of the system of abilities, skills, and experience of the effective implementation of key knowledge about the monitoring of the quality of education to ensure the quality of the educational process, one's socio-cultural self-sufficiency in terms of professional activity;
- the cultural approach contributes to the formation of the emotional, thinking, activity, and behavioral culture of the individual; moral-ethical and spiritual development, strengthening the importance of cultural content in the context of monitoring the quality of education to ensure the quality of the educational process;
- a synergistic approach allows considering the monitoring of the quality of education to ensure the quality of the educational process as an open pedagogical system, which is characterized by the presence of structural interrelationships and functional interaction of components in the context of self-development and self-improvement, nonlinearity and multivariate development;
- the axiological approach reveals the role of value orientations in monitoring the quality of education to ensure the quality of the educational process, determines the awareness and perception of the individual through the hierarchy of personal and professional values of monitoring the quality of education to ensure the quality of the educational process, activity, readiness, self-sufficiency, awareness;
the subject-activity approach is aimed at organizing the monitoring of the quality of education to ensure the quality of the educational process by creating an atmosphere of cooperation and trust to strengthen the personal motivation of students to master professional competence, deploy high-quality professional potential in the field of independent, scientific and research activities, educational, outside of educational activities and during practical training;

- the professional approach guides the process of monitoring the quality of education to ensure the quality of the educational process by the requirements of the professional sphere of the future pedagogical activity, integrates the components of professional competence into the professional profile of future specialists;

- the ethnic-regional approach determines ways of solving the monitoring the quality of education of specialists to ensure the quality of the educational process as representatives of regional, national, and world culture, which ensures the improvement of the system of professional training of such trained specialists.

The methodological and technological concept reflects the specific scientific level of monitoring the quality of education to ensure the quality of the educational process. The level is based on the development and application of scientific and methodological support for the introduction of monitoring the quality of education to ensure the quality of the educational process, and the formation of such a pedagogical phenomenon in the professional training of future specialists.

**Results and Discussion**

Today, quality education is the main factor determining the development of education, and the improvement of the educational sector is a necessary process for the development of society. That is why the 21st century exists under the name: the era of quality. Modernization of national education is based on:

- significant changes in education itself;
- observance of academic integrity;
- formation of innovative views on education;
- monitoring the results of the educational sector;
- integration of the non-state sector into the market of educational services, etc.

In society, a priority task appears: to assist each person in adjusting his educational status throughout his life by human abilities and needs; to provide each individual with high-quality training for professional activity. The main educational criteria of this process are 1) monitoring activity, 2) academic integrity.

1) Information obtained through monitoring the quality of the education system as a whole and the education of the individual, in particular, makes it possible to timely identify negative factors of personality formation and prevent their occurrence, to build and improve the educational space and forecast the development of the education system, making it innovative, to create conditions for citizens to receive Ukraine’s qualified higher education, the level of intellectualization of which will shape the future of science, the country, and the nation (Baydatska, 2007).

2) The issue of academic integrity has begun to receive worldwide attention in recent years. Academic integrity and attention to its significance became urgent in connection with the emergence of the need to adhere to moral and ethical principles when writing scientific papers.

At the conference on higher education (city of Bucharest, September 2004) with the assistance of the UNESCO European Center, the Declaration on Ethical Principles of Personal Values in the European Region was adopted. The main components of academic integrity are grouped in the Declaration:

- honesty,
- justice,
- trust,
- responsibility,
- respect
- accountability.

The goal of academic integrity is not only to follow the correct citation, and constant reference to literary sources but also to provide the correct information when writing scientific papers about the results of research, to respect the work of scientists who previously dealt with the same problem and have already expressed their attitude to this problem, conducted research and substantiated their point of view. Sanctions are imposed for violations of norms of academic integrity. These are: deprivation of the awarded scientific degree, expulsion from the university, repeated passing of the discipline and retaking of the final module control, exam. Academic
integrity includes many moral and ethical qualities of a person, which focus attention on the behavior of all participants in the educational space, and cause a direct influence on the quality of higher education (Sopova, 2018).

The American Council for International Education in Ukraine, in partnership with the Ministry of Education and Science of Ukraine, with the support of the US Embassy, currently implements the Strengthening Academic Integrity in Ukraine Project (SAIUP).

The project is designed for 4 years and embodies the proactive direction of the entire educational community for systemic changes in Ukrainian higher education. First of all, these are: ensuring favorable conditions for the realization of gifted students, ensuring the innovative image of Ukrainian universities, and improving the quality of the entire educational sector.

The project to promote academic integrity in Ukraine embodies four main areas of activity:

− educational campaign;
− practical training at universities;
− implementation of international practices in Ukrainian universities;
− purposeful work on regulatory mechanisms and regulatory framework.

The goal of the Project to promote academic integrity in Ukraine is to eliminate manifestations of academic dishonesty (plagiarism, plagiarism, corruption), as they destroy the educational industry, making the educational process only an imitation. To change this situation, systematic and long-term work is necessary, first of all, to form the academic integrity of higher education seekers and ensure its work at the level of higher education institutions (American Councils, 2022).

We see that academic integrity is a necessary unit for ensuring quality higher education. Another main educational criterion for the quality of the education process is monitoring activity. We will dwell on it in more detail.

We consider the system (that operates continuously and systematically) of processing, distribution, permanent collection, and storage of information about the quality of students’ education as monitoring the quality of students’ educational achievements. Such a system makes it possible to forecast the development of the educational process and can record judgments about the state of the educational process at any moment in time. We consider monitoring to be a holistic management tool. Let’s define its components: control and evaluation, research, and diagnostics, which manifest themselves depending on the monitoring tasks, are in a constant relationship (Baydatska, 2007).

The concept of monitoring the quality of education is broader than such concepts as assessment, control, and observation. Monitoring the quality of education can be considered both as a system and as a process.

To ensure high-quality higher education, monitoring of the quality of education is carried out at the following levels:

− institutional;
− national;
− regional;
− international.

Monitoring of the quality of education to ensure high-quality higher education is ongoing and includes the following stages:

− forecasting the development and state of the educational system;
− assessment of the most important factors and the current state of the education system with the constant influence of innovations on the state of monitoring;
− assessment of the projected state of the quality of education to ensure high-quality higher education;
− regulation of the quality of education for management decision-making to ensure high-quality higher education (Kozubovska, 2011).

We will analyze in detail the types of monitoring: internal and external.

Internal monitoring is characterized by the fact that it is carried out by specialists of the educational management body, the educational institution, i.e. the institution itself, to identify deficiencies in the knowledge and skills of the students of education, improve and rationalize pedagogical methods, improving the administration of the educational institution and increasing its efficiency, activating activities educational process, conducting research work. Monitoring takes place and is implemented practically by the team itself, whose representatives do not always receive proper professional training. Internal monitoring is carried out simultaneously or before external evaluation.
External monitoring of the quality of education to ensure high-quality higher education is carried out by special institutions that are independent. Such institutions include monitoring centers and sociological research centers. External monitoring of the quality of education to ensure high-quality higher education is carried out using appropriate technology and qualified specialists (the standardized methodology is applied). Most often, external monitoring of the quality of education to ensure high-quality higher education is carried out to obtain statistically significant and reliable information, which is the basis of the state's educational statistics. Such monitoring of the quality of education to ensure high-quality higher education is a system of information support of the management structure. External monitoring of the quality of education ensures:

- high reliability and reliability of information;
- development of variable recommendations;
- the possibility of generalization and comparison at any level of education management;
- professionalism of evaluators;
- use of special proven methods;
- standardization of information;
- an information basis for the analysis and development of educational policy at all levels.

The main forms of external evaluation of the quality of education to ensure high-quality higher professional education are accreditation and licensing of educational institutions, conducted for verification, based on defined criteria. The main question of verification is whether educational institutions can provide the quality services needed today (Hyrlyovska, 2020).

Educators, students, administration, parents, and employers, that is, every subject of the educational process, have an interest in providing quality education.

The quality of education can have conflicting meanings:

- for society, the quality of higher education is related to those values of education seekers and value orientations that will find their expression in professional activity, in civic position, in technical or humanistic orientation.
- for business and industry, the quality of education to ensure high-quality higher education correlates with the life position, professional skills, practical skills, and innovative knowledge of graduates;
- for teachers, the quality of education to ensure high-quality higher education can mean the presence of a high-quality educational plan, provided with educational materials;
- for parents, the quality of education can be compared with the development of the individuality of their children;
- for education seekers, the quality of education is related to the climate of the educational institution;

The concept of quality is defined by two aspects:

- the first is compliance with the specification or standards;
- the second – is compliance with the employer's requests.

We will show the stages of pedagogical monitoring:

1. regulatory and guidance monitoring of the quality of education to ensure high-quality higher education;
2. analytical and diagnostic monitoring of the quality of education to ensure high-quality higher education;
3. prognostic monitoring of the quality of education to ensure quality higher education;
4. activity-technological monitoring of the quality of education to ensure high-quality higher education;
5. intermediate diagnostic monitoring of the quality of education to ensure high-quality higher education;
6. final diagnostic monitoring of the quality of education to ensure quality higher education.

When analyzing the data of the results of the conducted research, it is worth taking into account the factors that have a direct impact on the results of monitoring the quality of education to ensure high-quality higher education and can lead to a negative or positive consequence:

- factors (preparedness, professionalism, quality of tools, equivalence of groups, constant change of personnel in the process of experimental work, distortion of results, external environment, social situation) that distort true assessments;
- the perfection of diagnostic tools (psychological and pedagogical, medical research methods, social and psychological).
By analyzing various aspects of the factors that have an impact on the results of monitoring the quality of education to ensure high-quality higher education, it is possible to improve the effectiveness of the educational process (Bodnenko et al., 2014).

We will analyze the main functions of monitoring, namely: analytical and informational, diagnostic, prognostic, and corrective.

The analytical and informational function contributes to the assessment of the effectiveness of the educational process, talks about the analysis and obtaining information, general training, clarifies the basis of studying the peculiarities of education, the course of the educational process, and factors that have a certain influence on it; helps provide feedback, etc. The data obtained during the monitoring of the quality of education are analyzed and interpreted to ensure high-quality higher education (Lukina, 2005).

The diagnostic function of monitoring the quality of education to ensure high-quality higher education is manifested in the form of checking the level of potential opportunities of the future specialist, his skills, and knowledge in comparison with previous achievements with the help of the achieved state of the education system, various means of research, identifying factors, problems, deviations from certain norms and standards (Lukina, 2000).

Predictive function. Monitoring shows the current state of the educational process and contributes to the forecasting of modern trends in the development of the quality of education to ensure high-quality higher education and the introduction of appropriate corrections (Kasyanova, 2000).

The corrective function involves the identification of causes that have an impact on the level and quality of assimilation of the content of education, tracking during monitoring studies of the quality of education to ensure high-quality higher education and specific gaps in the knowledge of student acquirers. Fixation of unexpected results of monitoring the quality of education to ensure high-quality higher education in educational and educational work in the future involves the organization of corrective activities (Baydatska, 2007).

Monitoring the quality of education to ensure high-quality higher education is carried out to obtain clear final results, which serve as a basis for making management decisions by the heads of educational institutions, where the student of education is perceived as the recipient of the necessary information.

We will define the methodological approaches used for monitoring the quality of professional training of future specialists: system, activity, personal, competence, and benchmarking.

The system approach made it possible to apply the elements that form the structure of monitoring the quality of education to ensure high-quality higher education, and to distinguish the following subsystems: the managing "pedagogical workers” and the managed "education seekers”.

The application of the activity approach to the study of monitoring the quality of professional training of future specialists made it possible to distinguish the following types of activities: "pedagogical activity of teachers”, "managerial activity of managers”, "educational activity of education seekers”, which are constantly in coordination, interconnection, and interaction. The activity approach determines the purpose, result, and content of monitoring activities for each category of participants. With this approach, the work of each category of monitoring participants is motivated, characterized by purposefulness, and objective, carried out in a certain way, and leads to an overall positive result.

A personal approach provides opportunities for creating conditions for self-actualization, self-development, and self-realization of education seekers and the formation and continuous development of professionally important general qualities in them, which ensure the formation of the personality of a future professional; determines the application of active forms of monitoring the quality of education to ensure high-quality higher education, the introduction of innovative pedagogical technologies, the observance of the humanistic orientation of the interaction of teachers and students of education, and the determination of optimal means of education.

A competent approach in the professional training of future specialists helps to distinguish invariant components, provides an opportunity for monitoring assessment to determine the content of test tasks, and organizes an educational and preparatory stage of monitoring for those seeking education (Hyrylovská, 2020).
Monitoring the quality of education to ensure high-quality higher education is based on the requirements of international standards ISO 9000; on the concept of implementing the principles of the European Foundation for Quality Management (EFQM) business model.

The international standards of ISO include the basic principles of total quality management (TQM), with the help of which it is possible to successfully implement them using educational quality management systems:

1. Application to the consumer. The task of the principal is the analysis of students and future needs of students, the satisfaction of consumer requirements in full; study of perspectives, which increases the expectations of employers as well as the quality of the training of fax workers.
2. The field of entrepreneurship in total quality management. Creation of an internal atmosphere by the enterprise to attract and interest the staff in quality training of students.
3. Involvement of teaching staff. The use of evidence of personnel of the educational institution, their qualifications, and skills; analyzing customer needs and creating innovative conditions that constantly encourage innovation.
4. Initial access. Business management in the form of a process that can be used to achieve the desired result; determination of innovative processes that contribute to the creation of innovative types of activity within the educational system.
5. System approach. Management, to achieve a certain result, through interconnected processes.
6. Subsequent execution. Improvement of the indicators of scientific, educational, and economic work with the help, provision, approval, and analysis of warning measures implementation.
8. Mutually beneficial relationships with customers. Proof of work at a lyceum, technical school, college, or school with a higher education institution allows you to improve the quality of education and monitor the quality of services.

Therefore, implementing the ISO standard in education will help improve the management system and identify shortcomings in the field of quality assurance of education to ensure high-quality higher education.

The main problem during the approval of quality management procedures in education is personnel. Therefore, it is quite important to train and motivate employees of public institutions, managers and auditors, etc. (Petrychenko, 2014).

Conclusions

The essence of the concepts is revealed: monitoring the quality of education, the quality of education is outlined in two aspects (compliance with specifications or standards; compliance with consumer requests).

Levels of monitoring the quality of education to ensure high-quality higher education are distinguished: institutional, regional, national, and international. The stages of monitoring the quality of education to ensure high-quality higher education are proposed: forecasting the development and state of the educational system; assessment of the actual state of the educational system and the most important factors; assessment of the predicted state and, as a result, regulation of the quality of education for management decision-making. The requirements for diagnostic tools are outlined. The main functions of monitoring (analytical and informational, diagnostic, prognostic, and corrective) are characterized.

Methodological approaches for monitoring the quality of professional training of future specialists (system, activity, personal, competence, and benchmarking) have been determined.

Presented are the modern principles of total quality management (TQM), which are developed using the system of quality management of education (the field of trade in the system of quality management; customer feedback; etc. critical approach; decision-making based on facts; involvement of teaching staff; systematic approach; continuous improvement; mutually beneficial equations with prepositions). We see further research in the analysis of methodological approaches for research monitoring the quality of professional training of future specialists.

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