ASSESSMENT OF THE QUALITY OF EDUCATIONAL ACTIVITIES IN THE CONTEXT OF DIGITAL TRANSFORMATION

AVALIAÇÃO DA QUALIDADE DAS ATIVIDADES EDUCACIONAIS NO CONTEXTO DA TRANSFORMAÇÃO DIGITAL

EVALUACIÓN DE LA CALIDAD DE LAS ACTIVIDADES EDUCATIVAS EN EL CONTEXTO DE LA TRANSFORMACIÓN DIGITAL

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ABSTRACT: The relevance of the study of the issues of assessing the quality of educational activities is due to the digital transformation of education, increasing requirements for the level of quality of training, complicating the conditions for organizing the educational process, which determines the need to search for new approaches and technologies. Assessment of the quality of educational activities in the conditions of digital transformation requires the creation of the necessary infrastructure, the formation of an appropriate regulatory, educational, and methodological base. When considering this problem, methods of systematization and generalization were used. The practical significance of the research results is determined by the fact that the conclusions drawn and the proposed scientific and theoretical provisions can be useful to the heads of educational organizations and have the ability to adapt to the conditions of the educational process.

KEYWORDS: Quality. Quality assessment. Educational activity. Digitalization. Education. Digital transformation.

RESUMO: A relevância do estudo das questões da avaliação da qualidade das atividades educacionais se deve à transformação digital da educação, aumentando as exigências para o nível de qualidade da formação, dificultando as condições de organização do processo educativo, o que determina a necessidade de busca por novas abordagens e tecnologias. A avaliação da qualidade das atividades educacionais nas condições de transformação digital requer a criação da infraestrutura necessária, a formação de uma adequada base normativa e
educacional e metodológica. Ao considerar este problema, foram utilizados métodos de sistematização e generalização. O significado prático dos resultados da pesquisa é determinado pelo fato de que as conclusões tiradas e as disposições científicas e teóricas propostas podem ser úteis para os dirigentes de organizações educacionais e têm a capacidade de se adaptar às condições do processo educacional.

PALAVRAS-CHAVE: Qualidade. Avaliação da qualidade. Atividade educacional. Digitalização. Educação. Transformação digital.

RESUMEN: La relevancia del estudio de los temas de evaluación de la calidad de las actividades educativas se debe a la transformación digital de la educación, aumentando los requisitos para el nivel de calidad de la formación, complicando las condiciones para la organización del proceso educativo, lo que determina la necesidad de buscar nuevos enfoques y tecnologías. La evaluación de la calidad de las actividades educativas en las condiciones de la transformación digital requiere la creación de la infraestructura necesaria, la formación de una base normativa, educativa y metodológica adecuada. Al considerar este problema, se utilizaron métodos de sistematización y generalización. La trascendencia práctica de los resultados de la investigación viene determinada por el hecho de que las conclusiones extraídas y las disposiciones científicas y teóricas propuestas pueden ser de utilidad para los responsables de las organizaciones educativas y tener la capacidad de adaptarse a las condiciones del proceso educativo.

PALABRAS CLAVE: Calidad. Evaluación de la calidad. Actividad educativa. Digitalización. Educación. Transformación digital.

Introduction

Quality education today is one of the goals of the educational policy of the Russian Federation, reflected in the "Development of Education" State Program for 2017-2025 (RUSSIA, 2017), the Federal Law "On Education in the Russian Federation" (RUSSIA, 2012), etc. At the present stage, the economy in the conditions of revolutionary transformations imposes new increased requirements for the quality of education and assumes the emergence of new approaches and technologies for assessing its level.

Digital transformation leads to fundamental changes in all aspects of professional activity, radically changing technologies, culture, operations, and principles of creating new goods and services. For the education sector, this implies the rejection of narrow specialization in favor of broad training as a foundation for the superstructure of constantly updated sets of professional competencies.

Digital technologies are rapidly spreading and updating, opening up unlimited opportunities for access to digital tools, materials, and services. Students and teachers gain extensive control over their information space and the prospects for its joint use. Their
opportunities for self- and mutual control, for the formation of interest in academic work, have expanded.

Russian President V. V. Putin notes the need for effective use of educational and other infrastructure, as well as the capabilities of modern technologies (RUSSIA, 2020). In addition, in the Address to the Federal Assembly for 2021, attention was focused on the transition to the digital transformation of the national school, as well as on the need to update the teaching and laboratory base and training programs of educational institutions of higher education (Message of the President to the Federal Assembly, 2021).

Thus, the digital transformation of education is a direction of work for a long period that affects all levels and all subjects of education and involves updating approaches to assessing the quality of educational activities.

Literature review

The study of scientific approaches to the definition of the essence of the "quality of education" and "quality of educational activity" concepts has shown that the research reflects several points of view on these concepts. Different definitions are given to them in legislative acts.

The law "On education in the Russian Federation" defines "quality of education" as "a complex characteristic of educational activities and training of a student, expressing the degree of their compliance with federal state educational standards, federal-state requirements and (or) the needs of an individual or legal entity in whose interests educational activities are carried out, including the degree of achievement of the planned results of the educational program".

The assessment of the quality of education implies not only an assessment of the quality of educational results of students but also an assessment of the quality of educational activities and educational programs. Educational activities in the Law "On Education in the Russian Federation" are defined as activities for the implementation of educational programs and are carried out by educational organizations and, in the cases established by this Federal Law, by organizations providing training, as well as individual entrepreneurs.

The educational activity of the university is a complex structured system and its quality should be determined by the totality of all processes: the development of educational programs; pre-university training; selection of applicants; educational and methodological work; educational process; employment of graduates, as well as their support by providing personnel management processes, document management, financial activities etc. (RUHENKO, 2008).
One of the main aspects of quality assessment is the compliance of the results of educational activities with the existing and prospective needs of direct consumers – students who expect to successfully find a job or continue their education at the next level after completing their education. Therewith, it is important to consider that it is essential to evaluate directly in the educational process since the quality assessment only "at the output" (for example, at the stage of the state final certification) increases the percentage of "defects" and does not allow correcting the current situation.

An independent assessment of the quality of education is an evaluation procedure based on information about the educational activities of organizations engaged in educational activities. An independent assessment of the quality of education has been represented by an external and internal assessment.

External evaluation is carried out by public experts (public accreditation, including professional and public and international accreditation).

The internal assessment is carried out directly by the university itself, and each educational organization has its internal system of education quality (KIRYUSHKIN, 2020).

Professional and public assessment of the quality of professional education programs is the recognition of the quality and level of training of future specialists who have mastered this educational program in a specific organization that carries out educational activities that meet the requirements of professional standards, the requirements of the labor market for specialists, employees and workers of the corresponding profile.

The Russian higher education system has a more developed external quality assessment focused on standards and performance indicators. The main elements of this system are standardization and licensing, certification and accreditation procedures, as well as a comprehensive assessment of educational institutions as a whole and individual specialties based on a rating system.

All these procedures include conducting an internal audit. The basis for an objective assessment of the quality of education is the federal state educational standards and federal state requirements, as well as educational standards established by universities.

The study of the question shows that the following main approaches are used to understand the essence of the concept of quality, concerning the quality of education:

– the traditional approach, when the quality of education is considered as compliance with the Federal State Educational Standard and/or the needs of an individual or legal entity in whose interests educational activities are carried out;
—an effective approach that evaluates the correspondence between various parameters in assessing the result of a particular person's education (the quality of knowledge, the level of competence formation)

Thus, we can conclude that these two approaches are focused on evaluating different indicators: educational activity is evaluated with the traditional approach, and its result is evaluated with the effective approach.

Therewith, in European and Russian educational practice, the point of view of competence as a category that is primarily understandable to the employer and characterizes the professional activity of a student after graduation, directly at the workplace, is increasingly spreading. For the formation of the competencies required by employers in university graduates, it is important to ensure not only the quality of the result of the educational program but also how it was obtained, i.e., the quality of educational activities (KURKINA, 2017).

Methods

When studying the topic, a set of methods was used: a systematic analysis of scientific and methodological works, generalization of experience, observation, analysis of educational activities of universities, which allow considering this problem considering many factors that affect the assessment of the quality of educational activities in the conditions of digital transformation. The analysis of the main approaches to the process of assessing the quality of educational activities using the electronic information and educational environment implemented by universities has been carried out.

At the initial stage of the study, the main theoretical and methodological grounds for determining the problem have been considered. Further, the essence of the digital transformation of education has been revealed, the factors influencing this process have been indicated, the main approaches to assessing the quality of educational activities using the electronic information and educational environment, implemented by universities, have been highlighted. At the final stage, the promising directions of the university's activities to improve the effectiveness of assessing the quality of educational activities in the conditions of digital transformation have been determined.
Results

The digital transformation of education is an update of the planned educational results, the content of education, methods, and organizational forms of educational work, as well as the assessment of the achieved results in a dynamically changing digital environment for the fundamental improvement of the educational results of each student. The main goal is to unite the following in the educational process: mastering the learner's defined content; achievement of selected goals by students; support and development of the educable's ability to learn, the formation of their educational independence.

In a broad interpretation, "digital transformation" as a concept is considered in three contexts:

– the use of digital technologies to automate various processes of companies, enterprises, institutions; therewith, each technology update determines the beginning of a new stage of digital transformation of this activity;

– the use of a complex of high-level digital technologies that have emerged at a certain stage of development;

– introduction of a complex of high-level digital technologies into the activities of a company, enterprise, or institution to build a model of professional activity that will be based on the effective application of these technologies to solve professional problems (PROKHOROV; KONIK, 2020).

The essence of digital transformation of education – achieving the desired educational results and traffic to the personalization of the educational process based on the use of CT. Digital technologies help to use new pedagogical practices at the core (new models of organizing and conducting educational work), which previously could not occupy a worthy place in mass education due to the complexity of their implementation using traditional (paper) technologies of communication and work with information.

Thus, the digital transformation of education can be considered as the development of a culture of using information based on new digital information tools in the following areas:

– educational organizations are implementing methods and mechanisms for working with data that increase the efficiency of the educational process and assess the quality of educational activities;

– trainees learn how to work with digital tools and services to increase the effectiveness of their academic work,
– teachers are introducing digital tools to improve the efficiency of the educational process;

– the administration is introducing new specialized digital tools and services that increase the efficiency of the changing organization of the educational process.

The factors influencing the digital transformation of education can be divided into two groups: external, related to the impact on the educational organization from the outside, setting the conditions for the functioning of the educational system and requirements for it, and internal, related to the educational organization itself, determining the need, readiness, and ability to perceive the achievements of technological progress and use them to solve their problems.

External factors directly affect the digital transformation of education and are caused by processes that unfold outside the educational system and are not controlled by it. These factors are related to the achieved level of development of the information industry, the spread of the use of digital technologies and determine: public expectations, claims to the effectiveness of the educational system; the necessary level of information culture and digital literacy of students; the availability and quality of digital educational resources used; the level of solving the problems of digital transformation of education possible at this stage.

External factors not only stimulate innovations but also set a framework for the pace and nature of equipping the educational process with the electronic information and educational environment (EIEE). External factors directly affect the dynamics of internal factors, which is expressed in the emergence of new pedagogical solutions based on the use of digital technologies.

Internal factors are caused by processes that are largely developing within the framework of the education system, which is associated with problems within the education system, its ability to respond to social requests, perceive and master new technologies, and tools for working with information to solve urgent problems. These factors are characterized by: the existing scientific and methodological groundwork in the field of development and use of all types of digital educational resources; the achieved level of professional training of teachers in the field of digital literacy; the flexibility of the management system, its readiness for changes, the ability to recognize and master new things, to disseminate effective organizational forms and methods of conducting educational activities, to improve the methods of management of an educational organization.
In practice, the following approaches to the process of assessing the quality of educational activities using the electronic information and educational environment, implemented by universities, are most often used (Table 1).

**Table 1 – The main approaches to the process of assessing the quality of educational activities implemented by universities**

| Name                     | Characteristics                                                                                                                                                                                                 | Contact details                                                                 |
|--------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------|
| Synchronous approach     | The simultaneous presence of teachers and students in the EIEE. The procedures for completing tasks and evaluating them are carried out simultaneously.                                                               | Zoom, cloud services, the university's online learning platforms                |
| Asynchronous approach    | The possibility of delayed assessment without the simultaneous presence of subjects of the educational process in the EIEE.                                                                                           | Electronic systems based on MOODLE, 1c University, etc.                          |
| Combinatorial approach   | A combination of procedures involving the simultaneous presence of subjects of the educational process in the EIEE and the possibility of delayed assessment.                                                   | cloud services, MOODLE, etc.                                                    |

Source: Devised by the authors

Each student shall not only accumulate knowledge, develop the ability to learn and master the necessary competencies to be ready for life in the digital economy, but also receive satisfaction from success in this difficult activity. Studying becomes a creative work that forms curiosity, readiness for change, the ability to understand and respond to new challenges. The traditional organization of the educational process is insufficient here (KURKINA; STARODUBTSEVA, 2019).

The technology of transformation of the assessment of the quality of educational activities at the university involves the implementation of the following main stages:

- preparatory (identification of regulatory, technical, and other opportunities and limitations for the digital transformation of the assessment of the quality of educational activities at the university);
- basic (definition of the list of competencies as the results of the development of the educational program, development of evaluation funds, implementation of evaluation procedures using digital educational resources and ICT);
- final (analysis of the effectiveness of the digital transformation of the assessment of the quality of educational activities at the university).

The main goal of the transformation of the assessment of the quality of educational activities at the university is to transform the content, forms, and methods of assessing the quality of educational activities through the use of digital educational services and resources in...
diagnostic and evaluation procedures, as well as information and communication technologies implemented during the current control, intermediate and final certification (KURKINA et al., 2020)

New approaches to assess the quality of educational activities and training in University-based technologies contain the modeling of the educational process and use models of various types: heuristic (based on regression analysis of data on activities of the University), a point rating (description of the system using a set of quantitative indicators, which give an idea about the object at this moment), the regulatory rating (if a standard is defined for each indicator characterizing the education system), etc. (VARTUMYAN; KLIMENKO, 2018).

Employers and students, acting as consumers of educational services, evaluate the quality of the university's activities and the quality of training according to other indicators and criteria. The graduate considers a high-quality education that allows him/her to be a competitive specialist, get a high-paying job in the profile of training, and successfully build his/her career in the future.

Employers are primarily interested in hiring young specialists with a high level of professional knowledge, capable of taking responsibility for the results of their professional activities, working in a team, solving non-standard tasks, and navigating the production environment, possessing leadership qualities, capable of creativity and continuous professional growth.

Therefore, in the future, the analysis of public opinion in social networks will be used to assess the quality of educational activities of universities. The study of public opinion, the factors influencing it, will allow identifying problem areas, and, on this basis, improving the quality of educational activities.

Meanwhile, it is necessary to identify some problems in the digital transformation of assessing the quality of educational activities, which in general can be divided into content and organizational ones.

The content aspect includes the following:
- the incompleteness and one-sidedness of the evaluation tools and, as a result, the difficulty of a comprehensive assessment of the results;
- inadequate efficiency of the system content filling of the EIEE;
- lack of EIEE resources for timely and qualitative assessment of the results of educational activities;
- evaluation funds do not involve the use of EIEE;
a large number of tasks for evaluation;

The organizational aspect includes the following:

− unjustified transfer of traditional assessment technologies to an online format;
− low involvement of students in the assessment process;
− lack of feedback that prevents an adequate assessment of the quality of assimilation of the material;
− inability to track the immediate reaction of students;
− the formalism of monitoring and evaluating students' activity in the classroom.

As a measure that contributes to the effective solution of these problems, it is possible to continue developing a comprehensive roadmap for assessing the quality of educational activities of the university in the context of digital transformation, which will ensure the adaptation of the university to the challenges of the future.

Conclusion

Thus, the conducted research allows drawing the conclusions proposed below.

One of the important tasks for universities in the context of digital transformation is to determine the effectiveness of the digital educational environment, to check the validity of changes in the content and organization of the assessment of the quality of educational activities. The digital transformation of education should contribute to solving such problems of effective assessment of the quality of educational activities as the development of a unified set of digital solutions and formats of evaluation funds, unified platforms or requirements for the compatibility of individual services, as well as the boundaries of copyright protection.

The following can be identified as promising areas of the university's activities to improve the effectiveness of assessing the quality of educational activities in the context of digital transformation:

− improving the necessary infrastructure;
− selection of variable pedagogical technologies for monitoring educational results;
− improving the efficiency of assessment with the preservation of digital data of students;
− increasing the involvement of the main subjects of education in the assessment of the quality of educational activities and training;
− improvement of the regulatory framework and organizational procedures for assessing the quality of educational activities and training.
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REFERENCES

KIRYUSHKIN, S. V. Analiz modelei i novykh podkhodov k otsenke kachestva obrazovaniya [Analysis of models and new approaches to assessing the quality of education]. Intellektualnye tekhnologii na transporte, n. 4, p. 40-44, 2020.

KURKINA, N. R. Management and evaluation of educational programs in higher education based on the requirements of employers. Modern Journal of Language Teaching Methods, v 7, n. 2, p. 167-176, 2017. Available at: https://elibrary.ru/item.asp?id=28936887. Access: 19 Apr. 2021.

KURKINA, N. R.; STARODUBTSEVA, L.V.; SULDINA, O.V.; SEMENOVA, O.A. Pedagogical conditions for the formation of managerial competencies of future teachers through practice-oriented educational tasks. Revista Inclusiones, v. 7, n. esp., 2020. Available at: http://revistainclusiones.org/gallery/4%20VOL%207%20NUM%20Trabajo%20en%20Equip o%20Rev%20Inc.pdf. Access: 19 Apr. 2021.

KURKINA, N. R.; STARODUBTSEVA, L.V. Tsifrovaya obrazovatel'naya sreda kak instrument povysheniya effektivnosti upravleniya obrazovatel'noi organizatsiei [Digital educational environment as a tool to improve the efficiency of management of an educational organization]. Sovremennye naukoemkie tekhnologii [Modern high technologies], n. 11, p. 220–225, 2019. Available at: https://www.top-technologies.ru/ru/article/view?id=37795. Access: 19 Apr. 2021.

PROKHOROV, A.; KONIK, L. Tsifrovaya transformatsiya. Analiz, trendy, mirovoi opyt [Digital transformation. Analysis, trends, world experience]. 2020. Available at: https://books.google.ru/books?id=JQx2DwAAQBAJ&printsec. Access: 19 Apr. 2021.

RUDENSKO, S. S. Otsenka kachestva obrazovaniya v vuze [Assessment of the quality of education at the university]. Vestnik ChitGU, n. 2(47), p. 20–24, 2008. Available at: https://www.semanticscholar.org/paper/Otsenka-kachestva-obrazovaniya-v-vuze-Rudenko/9a40ba965d884b28c062eb8af88298b8c6ae7226. Access: 19 Apr. 2021.

RUSSIA. Federal Law No. 273 - FZ. On education in the Russian Federation. ConsultantPlus, 2012. Available at: http://www.consultant.ru/document/cons_doc_LAW_140174. Access: 19 Apr. 2021.

RUSSIA. Order No. 1642. On the approval of the state program of the Russian Federation "Development of education". Approved by the Decree of the Government of the Russian Federation. ConsultantPlus, 2017. Available at: http://www.consultant.ru/government.ru/docs/30832. Access: 19 Apr. 2021.
RUSSIA. Decree of the President of the Russian Federation No. 474. On the national development goals of the Russian Federation for the period up to 2030. Approved by the President of the Russian Federation. Official Internet portal of legal information, 2020. Available at: http://publication.pravo.gov.ru/Document/View/0001202007210012. Access: 19 Apr. 2021.

VARTUMYAN, A. A.; KLIMENKO, I. S. Sovremennye podkhody k otsenke kachestva obrazovaniya: modeli i algoritmy [Modern approaches to assessing the quality of education: models and algorithms]. In: EZHEGODNOGO VSEROSSIISKOGO FORUMA S MEZHDUNARODNYM UCHASTIEM GILDII EKSPERTOV V SFERE PROFESSIONALNOGO OBRAZOVANIYA "MEZHDUNARODNYE STANDARTY I SOVREMENNYYE PODKHODY K OTSENKE KACHESTVA OBRAZOVANIYA" [Proceedings of the 14th Annual All-Russian Forum with international participation of the Guild of Experts in the Field of Professional Education], 14., 2018, Moscow. Proceedings […] Moscow, 2018. p. 11-15. Theme: Novye tekhnologii otsenki kachestva obrazovaniya [International standards and modern approaches to assessing the quality of education]. Available at: https://docviewer.yandex.ru/view/1130000030965451. Access: 19 Apr. 2021.

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