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## MODERN APPROACHES TO CURATORIAL WORK AT TECHNICAL UNIVERSITY: INTERACTIVE TECHNOLOGIES AND EFFECTIVE PRACTICES

### *Abstract*

The article is devoted to the analysis of modern approaches to curatorial work at the technical university, as well as the justification of the use of interactive technologies and effective practices in this field. The essential content of the concepts "curator" and "curatorial work" is revealed, its tasks and role in the educational work system of the university are clarified. The purpose of the article is to analyze modern approaches to curatorial work at the technical university and to substantiate interactive technologies and effective practices that optimize its efficacy.

The methodological basis of the study comprised an analysis of scholarly literature addressing the issues of curatorial activity and interactive learning, as well as an empirical investigation carried out through a survey of students and curators of academic groups at a technical university. The findings demonstrated a generally positive attitude among participants in the educational process toward the implementation of interactive forms of work, as well as their perceived contribution to students' adaptation and the development of personal qualities. At the same time, a number of organizational and methodological constraints were identified that hinder their systematic and consistent implementation.

The scientific novelty of the research consists in a comprehensive examination of curatorial activities within a technical university through the lens of interactive technologies, grounded in empirical evidence. The practical significance of the study lies in the potential application of the obtained results in the development of methodological guidelines and professional development programs for curators aimed at enhancing the quality of educational work and increasing the level of student engagement.

*Key words:* curator, curatorial work, upbringing, technical university, higher education, methodological support, interactive technologies.

**Introduction.** The current stage of higher education development, characterized by the processes of globalization and digital transformation, requires the development and implementation of new approaches to the educational work of the university, aimed at the formation of graduates of both professional competencies and individual and personal qualities. In this context, it is the institute of curatorship that bears the main responsibility, representing a key element of educational work in universities.

However, in the practice of modern universities, the institution of curatorship is often limited to formal events, which reduces its effectiveness and is perceived by students as an insignificant part of the educational process. This is especially evident in technical universities, where curricula focus primarily on natural science and engineering disciplines, which reduces attention to the formation of social and communicative competencies. Under these conditions, curatorial work is of particular importance, as it performs a compensatory function, contributing to the development of students' personal qualities and skills necessary for successful adaptation and future professional activity. In this regard, there is a need for a systematic analysis of modern approaches and practices of curatorial work.

The purpose of this study is to analyze modern approaches to curatorial activities at the technical university and to substantiate interactive technologies and effective practices that enhance its effectiveness. Within the framework of this goal, the following tasks are being solved: a theoretical analysis of the essence of curatorial work and modern approaches to its organization in a technical university, substantiation of the importance and possibilities of using interactive technologies in the

educational work of a technical university, as well as a practical study of the attitude of students and curators of academic groups to the use of interactive forms of work.

The term "curator" comes from the Latin word *curator*, which means "trustee", "guardian", "caring". In the modern educational context, a curator is a teacher appointed to address issues of education, leisure, work and social activities of students [1].

The term "curator" is often associated with the concept of mentoring. In the scientific literature, it is considered, on the one hand, as a form of organization of educational work and a means of managing the process of student team formation (T.G. Mukhina, T.V. Filippova) [2], and on the other – as a necessary element of the university's upbringing and educational environment (E.L. Bobylev, I.Yu. Samokhvalova, A.O. Chudakova, E.A. Shcheulova) [3].

In the works of domestic scientists, the term "curator" is interpreted as a teacher appointed by the dean's office to solve educational, leisure, labor, and social issues in a student's life (U.B. Toleshova) [4].

Thus, a curator is a teacher who performs the function of an intermediary between students and the university environment, providing not only the organization of the educational process, but also support for the personal development of students. His activities are aimed at adapting students to university conditions, forming social responsibility, developing communication skills and providing support in solving emerging personal and educational problems.

An important contribution to the study of the potential of curatorial work is the dissertation research by E.I. Yeroshenkova [5], in which this phenomenon is considered in the context of the formation of a student's professional and value attitude. The author's work combines the theoretical depth of the analysis of the category of "professional and value orientation" with a practical orientation, offering specific tools for modernizing the educational component in the activities of the curator of the student group. The conclusions of the study remain relevant for the development of modern concepts of curation using interactive and personality-oriented pedagogical technologies.

In the joint work of I.F. Isaev and E.I. Yeroshenkova [6], the content and technology of the activity of the curator of the student group are considered from the standpoint of a personality-oriented approach. The authors focus on the role of the curator in shaping students' professional and value attitudes and identify three key stages of curatorial work: organizational and predictive, procedural and stimulating, and integrationally corrective.

The curatorial work at a technical university has its own peculiarities due to the specifics of the professional training of engineering students. It is aimed not only at solving the traditional tasks of educational work and organizing extracurricular activities, but also at developing future specialists' qualities such as responsibility, teamwork, initiative, and soft skills. In the conditions of a technical university, the curator becomes a link between the educational process and the personal development of students, contributing to their professional socialization and adaptation to the conditions of their future profession.

The purpose of curatorial work at a technical university is to create conditions conducive to the successful academic and social development of students, their personal development and professional self-realization [7]. The realization of this goal is carried out through solving a set of tasks arising from the university's strategy in the field of educational work and focused on comprehensive support for students in the process of mastering educational programs.

The priority tasks of the curatorial work include: providing psychological and pedagogical support to students during their adaptation to the conditions of higher education; advisory support for students in building an individual educational trajectory; creation of conditions for self-realization of personality, development of intellectual, spiritual and moral potential of students; formation of students' ideas about the norms and values of corporate culture, the development of patriotism, civic identity, and interethnic tolerance; information support and encouragement of students' participation in various forms of extracurricular activities: scientific, cultural, educational, sports, etc. [8].

In a number of studies, including the work of E.Ya. Belskaya, it is noted that, despite the current requirements for the quality of training graduates of technical universities, involving the modernization of the organization and content of curatorial activities, in practice it largely retains a

formal character. The author emphasizes that curators' activities are often limited to performing general pedagogical functions and are based primarily on intuitive ideas about the specifics and effectiveness of interaction in the subject-subject system. The author cites the lack of professional training in the field of psychological, pedagogical, and humanitarian disciplines among the majority of curators of technical universities as one of the reasons for this situation. In addition, as her research shows, the curators themselves are aware of the need for organizational and methodological support, which indicates that there is a request to improve professional competence in this area [9].

G.V. Timoshko and A.A. Timoshko also analyze the key psychological aspects of the curator's work at a technical university, emphasizing the importance of psychological competence of teachers for successful student support. The authors highlight the role of the curator as an intermediary, contributing to the adaptation, formation of motivation and emotional stability of students, as well as the prevention of stress and conflict in the group. Special attention is paid to the need for systematic training of supervisors to improve their professional and psychological skills for effective educational and socio-psychological support of students [10].

The work of M.K. Kakimzhanova and Z.A. Kaskarbayeva is particularly noted among domestic researchers. The authors consider the importance of curatorial work in the system of extracurricular activities aimed at the formation of social competence of students of an agrotechnical university. The authors emphasize that the curator is a key actor ensuring the comprehensive development of the personal and communication skills of future specialists necessary for successful professional and social adaptation. Special attention is paid to methodological approaches and technologies that can be implemented in extracurricular activities to improve students' social competence [11].

Thus, the above provisions and research results indicate the existing gaps in the preparation and organization of curatorial activities in technical universities, primarily related to the insufficient level of psychological and pedagogical training of curators and the formal nature of their work. Considering this, it is important to integrate modern interactive technologies and effective methods into the practice of curatorial activities at a technical university aimed at improving the quality of interaction with students, activating their personal and professional potential, as well as creating conditions for more effective educational and adaptive work.

Interactive technologies in curatorial work are a set of methods and techniques aimed at actively involving students in interaction, joint decision-making, discussion and solving practical problems. The use of such technologies makes it possible to strengthen the motivation of students, promote the development of communication skills, critical thinking, and create conditions for effective adaptation and socialization in the educational environment. [12].

The most effective forms include trainings, interactive lectures and business games, AI tools, case studies, project activities, as well as digital tools for online communication and feedback [13]. The inclusion of these approaches in curatorial practice contributes to the formation of a more trusting relationship between the curator and students and makes extracurricular work not only meaningful, but also significant for the personal and professional development of students.

At the same time, it should be noted that in most studies interactive technologies are considered in a generalized manner, without taking into account the specifics of curatorial work and the educational environment of a technical university. In particular, existing classifications are usually based on the form of implementation (trainings, games, discussions), while their functional role in solving the tasks of curatorial activity remains insufficiently disclosed.

In the context of a technical university, where the educational process is predominantly focused on engineering and natural science training, curatorial work performs a compensatory function aimed at the development of students' social, communicative, and reflective competencies. This necessitates a more targeted selection and systematization of interactive technologies in accordance with the objectives of curatorial work.

Unlike traditional approaches, the classification in this study is based not only on the form of interaction, but also on the functional role of interactive technologies, methods, forms, and digital tools in addressing the key tasks of curatorial work within the specific context of a technical

university, considering them in an integrated manner within curatorial practice. The classification is shown in Table 1.

Table 1. The main forms of interactive technologies and methods

The form of work	Description	Goal	Specific function in a technical university context
<b>Technologies</b>			
Gamification	Modeling professional or social situations.	Increase motivation, develop social and professional competencies.	Development of professional identity and practical skills through gamified modeling of engineering roles and scenarios.
Case study	Joint analysis of real or simulated situations.	Development of critical thinking and decision-making skills.	Formation of professional thinking and the ability to make informed decisions based on the analysis of real engineering case situations.
Project activities	Students' work on socially significant or educational projects.	Formation of responsibility, leadership skills, and the ability to work in a team.	Development of students' teamwork and project-based engineering skills in conditions approximating real professional practice.
Reflective practices	Keeping diaries, discussing personal experiences, dealing with emotions.	Raising awareness, developing emotional intelligence.	Students' awareness of their academic and professional difficulties, along with the development of self-regulation and emotional stability skills and the formation of emotional intelligence necessary for effective teamwork in engineering environments.
<b>Methods</b>			
Lecture-based interactive methods	Using questions, mini-discussions, situational analysis, brainstorming elements, as well as digital tools (Kahoot!, Mentimeter, AI tools) to discuss relevant topics.	Increased attention, involvement in the discussion of relevant topics.	Increasing student engagement, developing critical thinking skills, and establishing stable feedback between the curator and students.
Quests and team games	Educational and developmental games with elements of search, competition.	Increased interest in extracurricular activities, development of team interaction.	The activation of students' learning motivation, the development of their communication and project competencies, as well as the formation of teamwork experience in solving technical and engineering problems in simulated professional scenarios.
Training (communication, adaptation, personal growth)	Conducting thematic sessions with students aimed at developing skills.	Developing soft skills, reducing anxiety, and improving group cohesion.	Compensation for the lack of communicative training and the development of interaction, teamwork, and professional communication skills.

Source: developed by the authors.

The presented table demonstrates an integrated approach to the organization of curatorial work at a technical university through the use of various forms and tools of interaction with students. Each of the considered forms of work is aimed not only at addressing general educational tasks, but also at the formation of professionally significant competencies that are in demand in the engineering environment.

The analysis shows that traditional and interactive methods (trainings, case studies, project activities, gamification, interactive lectures) in the context of technical education acquire a practice-

oriented character and contribute to the development of students' critical thinking, teamwork, communication, and decision-making skills in situations close to real professional practice. Of particular importance in curatorial work are digital tools and reflective practices that enhance feedback, provide rapid diagnosis of students' adaptation, and promote the development of emotional stability and self-regulation. This is especially important for technical universities, where attention is traditionally focused on subject and engineering training, while the development of soft skills requires additional pedagogical support.

Thus, the presented forms of work together ensure not only increased student engagement in the educational process but also their comprehensive personal and professional development, including the formation of communicative, design, digital, and emotional-personal competencies necessary for future engineers.

**Methods and materials.** The research used methods of collecting, processing, comparing theoretical and experimental data, and inductive-deductive analysis. In particular, during the generalization of theoretical data, scientific, pedagogical, and educational literature, as well as the works of domestic and foreign researchers on the research problem, were analyzed. To summarize the experimental data, a survey of students and curators of academic groups was conducted, and quantitative and qualitative methods were used to process the survey results.

As part of the practical research, questionnaire was developed and conducted aimed at identifying attitudes towards interactive technologies in curatorial activities.

The questionnaire was conducted using the Google Forms online platform, which made it easier to collect, organize, and then analyze the data obtained.

Link to the questionnaire for academic group curators: <https://forms.gle/i45iq6rXRjqRqTR67>

Link to the questionnaire for students: <https://forms.gle/pRtMu8cnHNqjH8BJ6>

The study employed two structured questionnaires designed for academic curators and students. The instruments were based on a mixed measurement design combining different types of scales depending on the nature of the variables. Both questionnaires included ordinal scales, Likert-type scales, and multiple-response items.

For ordinal measurement, response options were used to assess factual and behavioral indicators, such as the frequency of student participation in curator-led activities and perceived level of interaction with the curator. These items were measured using ordered categorical scales (e.g., “regularly – sometimes – rarely – never” or “very high – low”).

Likert-type scales (5-point agreement format ranging from “strongly disagree” to “strongly agree”) were applied in the curator questionnaire to measure attitudes toward interactive technologies, including perceived effectiveness, self-assessed competence, and readiness for professional development. In the student questionnaire, Likert-type items were used to assess perceived impact of interactive activities on adaptation and personal development, as well as attitudes toward increasing their use. Multiple-response questions were included to identify types of interactive methods used or preferred and to determine perceived difficulties, allowing respondents to select more than one relevant option.

Thus, the instruments combined behavioral (ordinal), attitudinal (Likert-type), and categorical (multiple-response) measures, enabling a comprehensive analysis of curatorial practice from both student and curator perspectives.

The questionnaire was designed as a diagnostic and evaluative instrument rather than a unidimensional psychometric scale. The validity of the research instruments was established through a combination of content validation, expert review, and pilot testing. Content validity was ensured by aligning the questionnaire items with the objectives of the study and the theoretical framework of curatorial activity and interactive pedagogical technologies.

Expert validation was conducted by three academic staff members specializing in pedagogy and educational psychology. They evaluated the questionnaire for content relevance, clarity of wording, and alignment with the research objectives. Based on their recommendations, minor editorial adjustments were made. In addition, a pilot study was carried out with a small group of respondents

to assess the clarity and comprehensibility of the instrument. The results of the pilot phase confirmed the suitability of the questionnaire for the main data collection.

Students and curators of academic groups of the Kazakh Agrotechnical Research University named after S. Seifullin took part in the survey. The total sample size was 172 respondents, including 160 2nd and 3rd year students from the Technical and Energy Faculties (80 students from each faculty), as well as 12 supervisors, each of whom is responsible for one curatorial group of these faculties. The sample was formed in a purposeful way and covers the key groups of participants in the educational process who are directly involved in curatorial activities.

The inclusion of all curators of the relevant academic groups in the study (n=12) has the character of continuous coverage, which increases the reliability of the data obtained. The size of the student sample (n=160) is sufficient to identify stable trends and conduct comparative analysis between faculties, as it ensures the representation of different academic groups and reduces the impact of random deviations. The selection of 2nd and 3rd year students is due to the fact that this category of students has already passed the stage of primary adaptation to the educational environment of the university, typical for the first year, and at the same time is still in conditions of active interaction with the curator. This allows for a more objective and informed assessment of the effectiveness of curatorial activities and the interactive technologies used.

Thus, the formed sample is reasonable, representative and corresponds to the objectives of the study.

**Results and Discussion.** The analysis of the results of the questionnaire of academic group curators made it possible to assess the degree of their familiarity with interactive technologies, the frequency and nature of their use in curatorial practice, as well as to identify difficulties and a request for further professional development in this area.

The results showed that the majority of respondents have sufficient experience in curatorial work: 64% have been working as curators for more than 3 years, 36% – from 1 to 3 years, there were no curators with less than a year of experience.

As for familiarity with interactive technologies, 22.3% of the curators reported that they are well versed in these methods, while 54.8% have only a partial understanding. This suggests a generally moderate self-reported level of familiarity with interactive technologies among curators. At the same time, 18.7% of respondents indicated poor familiarity with these methods, and one respondent reported a complete lack of knowledge, which suggests existing gaps in methodological training. Despite a relatively sufficient level of familiarity with interactive technologies, their practical application remains limited. Thus, only 27.3% of participants regularly use interactive forms in curatorial activities, 41.5% use them occasionally, and 31.2% rarely or never apply them. These data indicate a noticeable discrepancy between levels of awareness and frequency of practical application. In other words, the availability of knowledge does not always lead to its systematic integration into curatorial practice.

This situation may be attributed to a number of factors, including the high academic and organizational workload of curators, lack of time, as well as limited methodological support and insufficient practical guidance on the implementation of interactive forms of work.

The most commonly used methods among curators were discussions and mini-discussions, which were reported by 68.7% of participants, followed by online surveys and voting (50.4%), group projects (45.5%), and the use of digital platforms such as Kahoot! and Mentimeter (36%). This distribution indicates a predominance of relatively simple and discussion-based interactive forms, which require less technical preparation and are easier to integrate into curatorial practice. More complex interactive methods, such as role-playing games and training sessions, are used significantly less frequently (27.8%), which may reflect limited methodological readiness or insufficient experience in organizing such activities. In addition, 16.3% of respondents indicated other forms of interactive work, including extracurricular activities and engagement with socially significant issues. Multiple responses were allowed, therefore percentages do not sum to 100%.

Overall, the results suggest that curators tend to prioritize traditional interactive formats, while the integration of more innovative and practice-oriented technologies remains limited. This may be

explained by the higher organizational complexity of such methods and the lack of systematic methodological support. At the same time, the observed pattern reflects a gradual but uneven digital transformation of curatorial practice in technical universities (Figure 1).

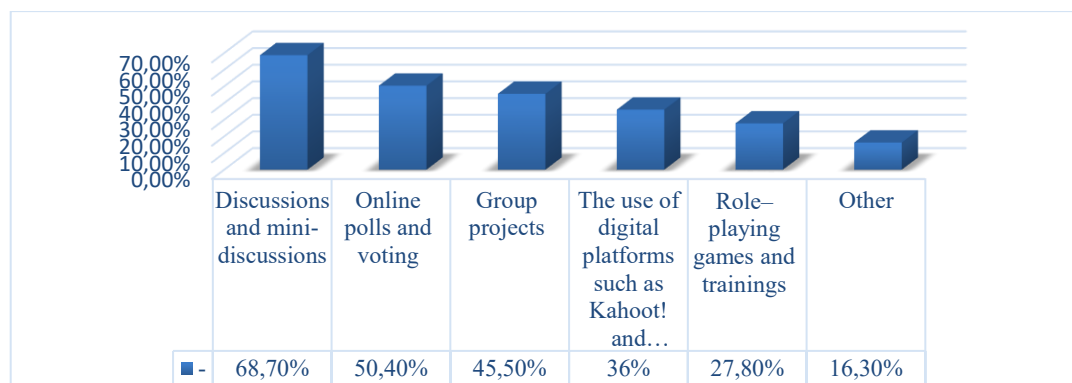


Figure 1. Interactive methods utilized

Source: developed by the authors.

Among the difficulties preventing the use of interactive technologies (Figure 2), the curators most frequently identified lack of time (59%), lack of methodological support (45.3%), low student engagement (41.4%), and insufficient training in interactive methods (36%). In addition, 11.2% of respondents reported other challenges, including lack of motivation and adherence to traditional teaching approaches. The obtained data indicate that the main barriers are primarily of an organizational and methodological nature rather than individual resistance to innovation. In particular, the predominance of lack of time suggests that curatorial responsibilities are often combined with high academic workloads, which limits the opportunity for systematic implementation of interactive forms of work. This question allowed multiple responses.

Methodological difficulties, including insufficient training and lack of guidance materials, point to the need for targeted professional development programs aimed at enhancing curators' competencies in interactive pedagogy. At the same time, factors such as low student engagement may partially reflect not only student behavior, but also insufficiently developed or inconsistent use of interactive methods themselves. Overall, these results demonstrate that the effective implementation of interactive technologies in curatorial practice requires both institutional support and systematic methodological assistance.

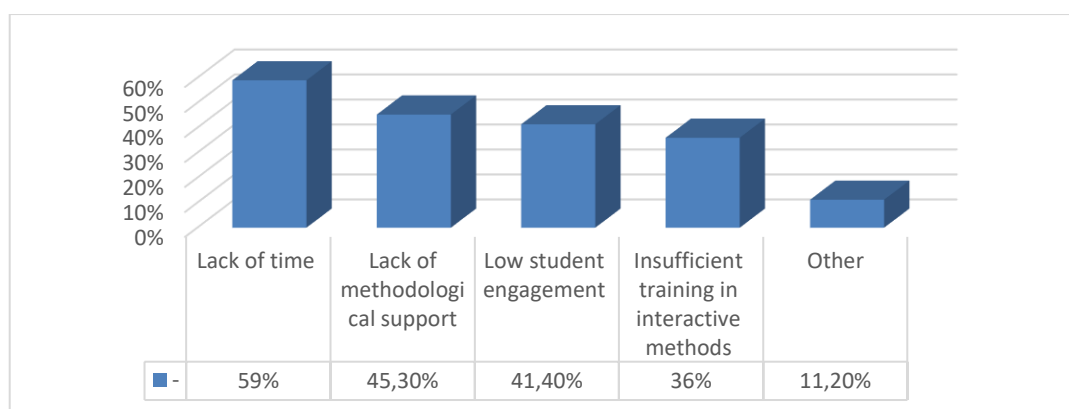


Figure 2. Difficulties in using interactive methods

Source: developed by the authors.

A high level of agreement (86%) was observed among curators regarding the need for additional training and methodological support in the implementation of interactive forms of work. This result indicates a strong readiness for professional development and a generally positive attitude toward

enhancing their competencies in the use of interactive pedagogical approaches. Overall, the findings reflect a favorable disposition toward the integration of innovative methods into curatorial practice.

The obtained result is particularly significant in the context of previously identified difficulties, such as insufficient methodological support and lack of training. Overall, this finding highlights a substantial potential for improving curatorial practice through targeted training programs and systematic methodological support, which could significantly enhance the effectiveness of interactive technologies in higher education.

The analysis of the results of the survey of students (160 people in total) revealed their perception of curatorial work, as well as their attitude to the use of interactive forms of interaction.

When asked about the level of interaction with the supervisor, 26.1% of students rated it as very high, noting that the supervisor is actively involved in the life of the group. A further 43.2% assessed the interaction as sufficient, indicating that communication takes place as needed. At the same time, 21.7% of respondents reported a low level of interaction, while 9% found it difficult to provide an assessment.

The results suggest that, in general, the level of student–curator interaction can be characterized as moderate, with a predominance of satisfactory but not intensive engagement. However, the presence of a significant proportion of students reporting low interaction indicates uneven implementation of curatorial support across student groups. Such variability may affect the consistency of students’ adaptation processes within the university environment, as the quality of interaction with the curator is an important factor in academic and social integration.

As for participation in events organized by curators, 31.8% of students reported regular participation, while 40.9% participate occasionally. At the same time, 19.3% indicated rare participation, and only 8% stated that they had never participated in such activities. These results suggest a generally moderate level of student engagement in curatorial events, with the majority of students involved at least periodically, although sustained and consistent participation remains limited.

The results regarding the use of interactive forms of work show that 20.5% of respondents indicated that curators often apply such methods, while 34.1% reported occasional use. At the same time, 18.2% noted rare use, 11.4% stated that interactive methods are never used, and 15.9% found it difficult to provide an assessment. These findings suggest an uneven and inconsistent implementation of interactive approaches in curatorial practice, with a predominance of occasional rather than systematic use across student groups.

When selecting the most interesting and effective forms of interactive work, students identified several preferred formats (Figure 3). The leading positions were occupied by polls and voting (63.6%) and online game-based tools such as Kahoot! and Quizizz (55.7%), which reflects a clear preference for digital, visually engaging, and feedback-oriented forms of interaction. This tendency can be explained by students’ familiarity with digital environments and the motivational effect of gamification, which increases engagement and reduces perceived learning effort.

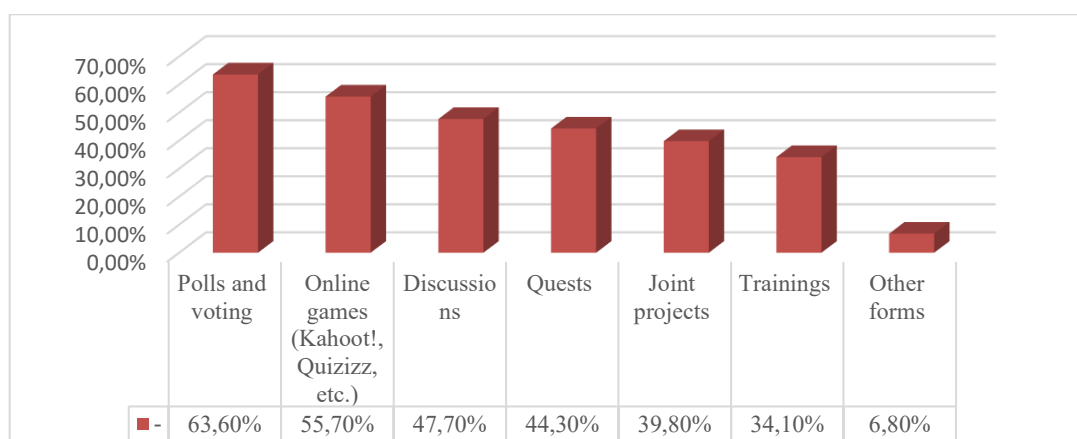


Figure 3. Interesting and effective forms of interactive methods according to students

Source: developed by the authors.

Moderate preferences were observed for discussions (47.7%), quests (44.3%), and joint project activities (39.8%). These results suggest that students value interactive formats that involve collaboration and active participation, although they may be more effective when clearly structured and goal-oriented. At the same time, trainings (34.1%) were chosen less frequently, which may indicate their perception as closer to traditional instructional formats or insufficient contextualization within real professional tasks. The lowest proportion was attributed to other forms of interaction (6.8%), such as meetings with graduates and informal communication, which suggests that their educational and career-oriented potential is not yet fully recognized by students.

Overall, the findings indicate a dominance of preferences for interactive forms combining digital accessibility, gamification, and immediate feedback. From a pedagogical perspective, this highlights the need to strengthen the integration of digital tools into curatorial work while also developing more complex collaborative formats aimed at fostering teamwork, critical thinking, and professional identity formation among students in technical universities.

When asked whether interactive forms of work help students adapt to university life, the majority of respondents reported a positive effect: 38.6% indicated that such forms contribute to a large extent, while 36.4% noted a moderate impact. This overall positive assessment (75% in total) suggests that interactive and participatory formats play an important role in supporting students' academic and social adaptation in the university environment, particularly in the early stages of study. At the same time, 13.6% of respondents stated that these forms practically do not contribute to adaptation, and 4.5% reported no effect at all, while 6.8% found it difficult to answer. These responses may indicate differences in students' individual learning experiences, levels of engagement, or awareness of the educational purpose of such activities. The presence of a minority with negative or uncertain perceptions highlights the need for more consistent integration and clearer pedagogical design of interactive practices within curatorial work.

Overall, the results demonstrate that while interactive forms are generally perceived as an effective tool for facilitating adaptation, their impact is not uniform, which emphasizes the importance of targeted pedagogical support and systematic implementation in technical university settings.

As for personal development, 40.9% of respondents believe that curatorial work fully contributes to it, 31.8% – to some extent, 15.9% – probably not, 6.8% – not at all, and 4.5% found it difficult to answer.

When asked about their desire to see more interactive methods used by the curator, the majority of respondents expressed a clear positive attitude: 59.1% answered “Yes” unequivocally and 27.3% “Rather yes”, indicating a strong overall demand for expanding interactive practices. In contrast, only a small proportion of students expressed reservations, with 10.2% selecting “Rather no” and 3.4% fully disagreeing. These results demonstrate a pronounced student interest in increasing the use of interactive formats in curatorial work. This tendency may be associated with students' preference for more engaging, feedback-oriented and technology-mediated forms of interaction, as well as with their expectation of greater involvement in the educational process. From a pedagogical perspective, the findings suggest the need to further develop the curator's role as a facilitator of interactive learning environments and to systematically integrate digital methods into curatorial practice.

The conducted research has shown that, despite the sufficient experience of curators and their generally positive attitude towards interactive technologies, the level of their systematic implementation in curatorial practice remains limited and heterogeneous. The main reasons for this gap are not so much resistance to innovation as organizational and methodological factors: high workload, lack of time, and insufficient training of curators in the field of interactive pedagogy. The results obtained reflect a typical situation in higher education, in which the availability of digital tools does not guarantee their sustainable pedagogical use or integration into the educational process. This disparity between awareness and the practical application of technology is also explained by the insufficient level of methodological support and the lack of systematic assistance in implementing

innovative forms of work. In this context, it is important to emphasize that the effectiveness of educational technology implementation is determined not only by its accessibility, but also by the quality of pedagogical design, as well as the readiness of teachers to use it meaningfully.

According to Adrian Kirkwood and Linda Price (2014), the availability of technology alone does not lead to an improvement in the quality of education if there are no thoughtful pedagogical integration and methodological support for its use. This conclusion is also confirmed in the present study, where a gap between theoretical knowledge and the practical application of interactive methods has been identified [14].

From the students' perspective, interactive forms of work are perceived as a significant factor in increasing engagement, adaptation to the university environment, and personal development. The most popular formats are digital and game-based activities that provide immediate feedback and a high level of engagement. There is a particularly strong interest in gamified tools such as Kahoot! and Quizizz, which can be explained by their high interactivity and motivational potential. In this context, it is important to note that gamification as a pedagogical approach helps to increase student engagement and activity by introducing game elements into the educational process, which is confirmed by the research of Sebastian Deterding et al. (2011). At the same time, more complex forms of interaction, such as training sessions and project-based activities, are used less frequently, which may indicate insufficient structuring of their implementation in curatorial practice [15].

The revealed heterogeneity in the frequency of application of interactive methods and the level of interaction between curators and students indicates the fragmented nature of their implementation. Despite this, students generally assess the impact of interactive forms on adaptation to the university environment and personal development positively, which confirms their pedagogical significance.

**Conclusion.** The conducted research revealed that, in the context of a technical university, curatorial activity plays a key role in ensuring not only students' academic adaptation, but also their personal and professional development. At the same time, it has been found that its potential is not fully realized: despite a relatively high level of curators' awareness of interactive technologies, their use remains sporadic and inconsistent.

Empirical evidence shows that the main barriers to the implementation of interactive forms are organizational and methodological factors, including a high workload of curators, lack of time, and insufficient methodological support. At the same time, curators' willingness for professional development was identified, which creates favorable conditions for improving the student support system. From the students' perspective, interactive forms of interaction are considered a significant factor in increasing engagement, adaptation, and personal development. Digital and gamified formats that provide immediate feedback and emotional engagement receive the strongest positive response, whereas more complex forms, such as trainings and project-based activities, are not yet systematically implemented.

The practical significance of the study lies in the applicability of its results for the development of methodological guidelines and professional development programs for curators aimed at improving the quality of curatorial work and increasing the level of student engagement.

Further research prospects include the testing of specific interactive techniques in real educational practice, as well as the assessment of their impact on students' adaptation, engagement, and the development of professional and personal competencies. Of particular interest is a comparative analysis of the effectiveness of different types of interactive technologies depending on the year of study and academic specialization.

## REFERENCES

1 van der Merwe, W., Maree, C., Yazbek, M., Cochrane, M. E. (2025). Empowered to Lead: The Effect of Mentoring and Tutoring on Peer Tutor Leadership Development. *New Directions for Student Leadership*, (186), 75-80. DOI: <https://doi.org/10.1002/yd.20678>

2 Mukhina, T.G., Filippova, T.V. (2023). Analiz sootnosheniya ponyatii «nastavnichestvo» i «kuratorstvo» v pedagogicheskoi praktike [Analysis of the relationship between the concepts of "mentoring" and "curatorship" in pedagogical practice]. *Vestnik Mininskogo universiteta [Bulletin of*

*Mininsky University*], 11(3), 55–69. DOI: <https://doi.org/10.26795/2307-1281-2023-11-3-4> [in Russian].

3 Bobylev, E.L., Samokhvalova, I.Yu., Chudakova, A.O., Shcheulova, E.A. (2023). Institut kuratorstva – komponent vospitatelnoi raboty v vuze: istoriya voprosa, aktualnye problemy i perspektivy razvitiya [The Institute of Curatorship is a component of educational work at the university: background, current problems, and development prospects]. *Vysshee obrazovanie segodnya* [Higher education today], (6), 42–48. DOI: <https://doi.org/10.18137/RNU.HET.23.06.P.042> [in Russian].

4 Tuleshova, U.B. (2011). Universitettik bilim beru juiesindegi edvaizer-kuratordyn kyzmeti [Activities of the adviser-curator in the university education system]. *KazUU xabarshysy, Pedagogikalyk gylymdar seriyasy* [Bulletin of KazNU, Series: Pedagogical Sciences], 34(3), 73–78. [in Kazakh].

5 Yeroshenkova, E.I. (2008). *Formirovanie professionalno-tsennostnoi ustanovki budushhego uchitelya v deyatelnosti kuratora studencheskoi gruppy*: Dissertaciya na soiskanie uchenoj stepeni kandidata pedagogicheskikh nauk: 13.00.08 [Formation of the professional and value attitude of the future teacher in the activity of the curator of the student group: Dissertation for the degree of candidate of pedagogical sciences: 13.00.08]. Belgorod, 224 p. [Electronic resource] – URL: <https://elibrary.ru/item.asp?id=16187128> [in Russian]

6 Isaev, I.F., Yeroshenkova, E.I. (2009). Deyatel'nost kuratora studencheskoi gruppy: lichnostno-orientirovannyi podkhod [The activity of the student group curator: a personality-oriented approach]. *Vysshee obrazovanie v Rossii* [Higher education in Russia], (6), 149-152. [Electronic resource] – URL: <https://cyberleninka.ru/article/n/deyatelnost-kuratora-studencheskoy-gruppy-lichnostno-orientirovannyi-podhod?ysclid=mks7asjrlg798180468> [in Russian].

7 Belskaya, E.Ya. (2019). Model organizatsionno-metodicheskogo soprovozhdeniya i podderzhki deyatelnosti kuratorov akademicheskikh grupp v sovremennom tekhnicheskom universitete [A model of organizational and methodological support for the activities of curators of academic groups at a modern technical university]. *Nauchno-pedagogicheskoe obozrenie. Pedagogical Review* [Scientific and pedagogical review. Pedagogical Review], 24 (2), 83-89. DOI: <https://doi.org/10.23951/2307-6127-2019-2-83-89> [in Russian].

8 Petukhova, E. A. (2014). Problemy adaptatsii studentov pervogo kursa i znachenie roli kuratora v ih reshenii [Problems of adaptation of first year students and the role of the head of the year in their solution]. *Izvestiya Altaiskogo gosudarstvennogo universiteta* [News of Altai State University], 1(2 (82)), 55–57. DOI: [https://doi.org/10.14258/izvasu\(2014\)2.1-09](https://doi.org/10.14258/izvasu(2014)2.1-09) [in Russian].

9 Belskaya, E.Ya, Igna, O.N. (2022). Opytno-eksperimental'naiya rabota po organizatsionno-metodicheskomu soprovozhdeniyu deyatelnosti kuratorov akademicheskikh grupp v tekhnicheskom universitete [Experimental work on organizational and methodological support for the activities of curators of academic groups at a technical university]. *Nauchno-pedagogicheskoe obozrenie. Pedagogical Review* [Scientific and pedagogical review. Pedagogical Review], 1(41), 17-26. DOI: <https://doi.org/10.23951/2307-6127-2022-1-17-26> [in Russian].

10 Timoshko, G.V., Timoshko, A.A. (2018). Psikhologicheskie aspekty raboty kuratora studencheskoi gruppy v tekhnicheskom vuze [Psychological aspects of the work of a student group supervisor at a technical university]. *Gumanitarnye aspekty vysshego professionalnogo obrazovaniya: Materialy 3-i mezhdunarodnoi nauchno-prakticheskoi konferencii* [Humanitarian aspects of Higher professional education: Proceedings of the 3rd International Scientific and Practical Conference]. Makeyevka: Donbasskaya nacional'naya akademiya stroitel'stva i arkhitektury [Donbass National Academy of Construction and Architecture], 355–360. [Electronic resource] – URL: <https://www.elibrary.ru/item.asp?id=36860859> [in Russian]

11 Kakimzhanova, M.K., Kaskarbayeva, Z.A. (2023). Rol kuratora studencheskoi gruppy kak sub'ekta vneuchebnoi raboty po formirovaniyu socialnoi kompetentnosti budushikh spetsialistov agrotekhnicheskogo vuza [The role of the curator of the student group as a subject of extracurricular work on the formation of social competence of future specialists of the agrotechnical university].

*Vestnik Universiteta imeni Alikhana Bokeikhana [Bulletin of Alikhan Bokeikhan University]*, 56(1), 67–74. DOI: <https://doi.org/10.48501/3830.2023.38.67.003> [in Russian].

12 Kalyani, L. K. (2024). The role of technology in education: Enhancing learning outcomes and 21st century skills. *International journal of scientific research in modern science and technology*, 3(4), 05-10. DOI: <https://doi.org/10.59828/ijrmst.v3i4.199>

13 Alam, A., Mohanty, A. (2023). Educational technology: Exploring the convergence of technology and pedagogy through mobility, interactivity, AI, and learning tools. *Cogent Engineering*, 10(2), 2283282. DOI: <https://doi.org/10.1080/23311916.2023.2283282>

14 Kirkwood, A., Price, L. (2014). Technology-enhanced learning and teaching in higher education: what is 'enhanced' and how do we know? A critical literature review. *Learning, media and technology*, 39(1), 6-36. DOI: <https://doi.org/10.1080/17439884.2013.770404>

15 Deterding, S., Sicart, M., Nacke, L., O'Hara, K., Dixon, D. (2011). Gamification. using game-design elements in non-gaming contexts. *CHI EA '11: CHI '11 Extended Abstracts on Human Factors in Computing Systems*. New York: Association for Computing Machinery, 2425-2428. DOI: <https://doi.org/10.1145/1979742.1979575>

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## ТЕХНИКАЛЫҚ УНИВЕРСИТЕТТЕГІ КУРАТОРЛЫҚ ҚЫЗМЕТТІҢ ЗАМАНАУИ ТӘСІЛДЕРІ: ИНТЕРАКТИВТІ ТЕХНОЛОГИЯЛАР ЖӘНЕ ТИІМДІ ТӘЖІРИБЕЛЕР

### Аңдатпа

Мақала техникалық университеттегі кураторлық қызметтің заманауи тәсілдерін талдауға, сондай-ақ осы салада интерактивті технологиялар мен тиімді тәжірибелерді қолдануды негіздеуге арналған. «Куратор», «кураторлық қызмет» ұғымдарының маңызды мазмұны ашылады, оның міндеттері мен университеттің тәрбие жұмысындағы рөлі нақтыланады. Мақаланың мақсаты техникалық университеттегі кураторлық қызметке заманауи тәсілдерді талдау және оның тиімділігін арттыруға ықпал ететін интерактивті технологиялар мен тиімді тәжірибелерді негіздеу болып табылады.

Зерттеудің әдіснамалық негізін кураторлық қызмет пен интерактивті оқыту мәселелері бойынша ғылыми әдебиеттерді талдау, сондай-ақ техникалық университеттің академиялық топтарының студенттері мен кураторлары арасында сауалнама жүргізу арқылы жүзеге асырылған эмпирикалық зерттеу құрайды. Нәтижелер білім беру үдерісіне қатысушылардың интерактивті жұмыс түрлерін қолдануға оң көзқарасын, сондай-ақ олардың студенттердің бейімделуіне және жеке тұлғалық қасиеттерін дамытуға ықпалын көрсетті. Сонымен қатар, аталған технологияларды жүйелі түрде енгізуді шектейтін ұйымдастырушылық және әдістемелік қиындықтар айқындалды.

Зерттеудің ғылыми жаңалығы эмпирикалық деректер негізінде интерактивті технологиялар призмасы арқылы техникалық университеттегі кураторлық қызметті кешенді талдаумен айқындалады. Жұмыстың практикалық маңыздылығы тәрбие жұмысының сапасын және студенттердің белсенділік деңгейін арттыруға бағытталған кураторлардың біліктілігін жетілдіруге арналған әдістемелік ұсынымдар мен бағдарламаларды әзірлеуде алынған нәтижелерді қолдану мүмкіндігімен анықталады.

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## СОВРЕМЕННЫЕ ПОДХОДЫ К КУРАТОРСКОЙ ДЕЯТЕЛЬНОСТИ В ТЕХНИЧЕСКОМ УНИВЕРСИТЕТЕ: ИНТЕРАКТИВНЫЕ ТЕХНОЛОГИИ И ЭФФЕКТИВНЫЕ ПРАКТИКИ

*Аннотация*

Статья посвящена анализу современных подходов к кураторской деятельности в техническом университете, а также обоснованию применения интерактивных технологий и эффективных практик в данной сфере. Раскрывается сущностное содержание понятий «куратор», «кураторская деятельность», уточняются его задачи и роль в системе воспитательной работы вуза. Целью статьи является анализ современных подходов к кураторской деятельности в техническом университете и обоснование интерактивных технологий и эффективных практик, способствующих повышению её результативности.

Методологическую основу исследования составили анализ научной литературы по проблеме кураторства и интерактивного обучения, а также эмпирическое исследование, проведённое методом анкетирования студентов и кураторов академических групп технического университета. Результаты показали положительное отношение участников образовательного процесса к использованию интерактивных форм работы, их влияние на адаптацию студентов и развитие личностных качеств. Вместе с тем выявлены организационные и методические трудности, ограничивающие их системное внедрение.

Научная новизна исследования заключается в комплексном анализе кураторской деятельности технического университета через призму интерактивных технологий с опорой на эмпирические данные. Практическая значимость работы состоит в возможности использования полученных результатов при разработке методических рекомендаций и программ повышения квалификации кураторов, направленных на повышение качества воспитательной работы и уровня студенческой вовлечённости.

*Ключевые слова:* куратор, кураторская деятельность, воспитание, технический университет, высшее образование, методическая поддержка, интерактивные технологии.

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