

Multimedia presentations in the educational process: innovation or vulgarization of education?

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Abstract — The article considers the problem of the practicability of using multimedia presentations in the process of organizing the educational process in higher education institutions in modern conditions of switchover to the post-industrial stage of development of Russian society. The authors are convinced, that the use of digital technologies in education helps to increase its effectiveness, the introduction of a personality-oriented approach to learning. This position is shared by many practicing teachers, as evidenced by a small review of previously published researches. *The objective* of the work is to assess the educational potential of multimedia presentations in the process of forming universal, general professional and professional competencies, provided by the new editions of the federal state standard 3 ++ for future teachers.

The research methodology was based on an analysis of the answers of students of the Ural State Pedagogical University to questionnaire questions, that related to the respondents' assessment of the use of multimedia presentations, both in lectures and practices, and in the process of self-education.

Results of the research. A sample student questioning, conducted by the authors of the article, allowed to identify the positive components of digital technology, as well as shortcomings.

Conclusions. The authors of the article came to a number of conclusions. With the help of presentations, the systematization of the studied material, control of the formation level of competencies is carried out, independent work is organized. However, teachers may be tempted to ignore the educational effect of presentations, preferring their emotional-entertaining component. In this sense, we call to adhere to a golden mean.

Key words — *higher school, competence, lecture, multimedia presentation, education, practice.*

I. INTRODUCTION

Modern man lives in the world of electronics and digital technology, he is used to perceiving information by all senses at the same time. Teachers of all levels of education have realized that their charges are audio-visuals. The use of multimedia technologies provides a wide range of opportunities to qualitatively improve the educational process, expand the potential of self-education, activate a constructive dialogue between the student and the teacher in an extracurricular (distance) format.

The traditional form of classroom learning, when the teacher is the main medium of information, gives way to the informational “polyphony” in which the teacher plays the role

of a pilot, which helps the student to lay the most relevant educational route.

We, teachers, must remember that today's students will very soon become colleagues, acting teachers, who must be prepared for the challenges of the information society, the expectations of all participants of the educational process.

However, the pursuit of innovations is fraught with a simplification of the learning process. A form can displace content. The teacher should remain the main figure, responsible for the organization and management of both classroom and independent work of students.

The first experience in assessing the effectiveness of using multimedia teaching aids dates from the turn of the 1990–2000s. The “youth” of this topic is explained by the fact, that digital technology started to penetrate into Russian educational institutions only in the last decade of the twentieth century. Secondary educational institutions were pioneers, the higher school was significantly behind in the technical re-equipment and implementation of innovative multimedia technologies, only the technical universities of the largest cities could “boast” of the availability of the newest digital equipment.

Mainly Russian school teachers, who needed to share their successes, to share doubts about whether their pedagogical search was moving in the right way with colleagues, were the authors of the first works [8, 9, 11, 12].

Note, that foreign colleagues turned to discussing the possibilities of digital technologies much earlier, so the main flow of assessed research and methodological recommendations happened in the 1990s. At the end of the second decade of the 21st century, articles, in which the results of applying multimedia presentations for students of various specialties and learning profiles were analyzed, appeared: architecture [2], medicine [3, 5], natural sciences [7], teachers-mathematicians [4], etc.

Researchers, at the end of the second decade of the 21st century, tried to summarize the accumulated experience of using multimedia presentations in teaching practice. In particular, in an article by Mutlu-Bayraktar Duygu, Cosgun Veysel, Altan Tugba, based on an analysis of 94 articles, published in 2015-2019, the authors attempted to determine the degree of cognitive load and the principles of multimedia learning, to classify the types of multimedia learning environments [6].

Practicing teachers are interested in the results of students mastering the learning material, that they receive in the process of using multimedia presentation technology. The decision to apply to digital technologies in the process of organizing the educational process should be consistent with the age, ethnocultural characteristics of students, affecting the nature of the perception of information [1].

We must state that, despite the traditional conservatism, the education system is ready to be updated, to accept new technological challenges. However, we, teachers, need to remember the precept of a conscientious doctor in our creative work: "Do no harm!", as we doctor the minds and souls of our students.

The task of a pedagogical university is to prepare a new generation of teachers, who have the appropriate personal and professional qualities, as well as an understanding methods of using digital technologies, including multimedia presentations.

The objective of the work is to assess the educational potential of multimedia presentations in the process of critical understanding of information flows, that students are not always ready to understand and perceive, the formation of universal, general professional and professional competencies of the future teacher in accordance with the federal state standard 3 ++ in the direction "44.03.05 - Pedagogical education" (bachelor's programme level) [10].

II. RESEARCH METHODOLOGY

The need for using modern technical means and digital technologies in all spheres of life is recognized by specialists in various fields of activity. There is no need to prove this thesis, it is important to understand, what pros and cons we should keep in mind, including them in the arsenal of a teacher. An analysis of the possibilities and effectiveness of using multimedia means and technologies made it possible to offer a number of recommendations on the organization of the educational process with students, studying in the pedagogical universities.

The authors of the article set the task of assessing the attitude of students to the technology of multimedia presentations, for which a sociological survey among first-year students of the Institute of Pedagogy and Psychology of Childhood was organized, second and third year students of the Institute of Social Sciences of the Ural State Pedagogical University, representing various profiles of the direction "44.03.05 - Pedagogical Education" (bachelor's programme level). Students were offered to answer a number of questions in the questionnaire: what are the most effective forms of using multimedia presentations, what digital resources do students use when preparing them, what are the positive aspects of using presentation materials at lectures, and what are their disadvantages, what problems may be faced by both teachers and students using multimedia presentations.

III. RESULTS OF THE RESEARCH.

A sample survey of students, conducted by the authors of the article, made it possible to assess their attitude to the technology of digital presentations as adequate as possible.

The survey results allowed to answer the question, do presentations interfere or help to master learning material.

All respondents unanimously spoke out for the need for using multimedia presentations at lectures, a little less than half (46.7%) consider, that this type of digital technology is applicable both in practice and in individual study.

In the process of preparing presentations, as 83% of respondents noted, students turn to text editors, use photos and illustrations (76,6%), cartographic material, online resources and electronic learning sites (studbooks.net), Vitlab, Wikireading, learning material, received both on paper and through online libraries (for example, the USPU electronic library), 26.6% of respondents use each. All students know and use the PowerPoint presentation preparation program in the educational process.

Most students take this form of academic work seriously, they are independent authors of presentations, only 13.3% of respondents use ready-made works, which, in the view of the authors of the article, reduces the effectiveness of solving educational tasks and forming the necessary competencies.

Students noted that the use of multimedia presentations during learning sessions allows to structure the material, 86.6% of respondents think so, for 26.6% of students, the emotional richness of the slides is important, which helps them remember educational information better.

About 80% of students noted, that the texts on the slide are easier to perceive, because they do not depend on the characteristics of the teacher's handwriting, the location of the student in the audience, and the quality of his vision. In addition, most students do not have the skills of summarizing oral speech, the presentation allows to manage to record basic information. At the same time, 70% of respondents noted, that the use of presentations does not depreciate the role of a lecturer, who skillfully guides the audience, helps to orient in the primary and secondary information, and focuses on the most important elements of learning material.

A major shortcoming in the use of multimedia technologies, according to students, is the imperfection of the equipment support of the classrooms, the lack of blackout, in this regard, the image on the screen is of poor quality, and therefore, the information on the slides is poorly read, this reduces the learning factor of the presentation. Those asked (13.3%) noted, that teachers do not always conscientiously select and organize presentation materials, which reduces their educational potential, and also not all teachers are fluent in software or the basics of computer design, their presentations contain too small text, mismatch of color schemes, excessive use of animation effects, etc.

In general, students of the Ural State Pedagogical University very positively spoke about the use of multimedia presentations, because they make information more accessible and understandable for perception. The teacher does not need to repeat the lecture material many times, the information on the slide is thesis, which allows to more put it down compactly and quickly. The presentation helps to monitor the "progress" of the lecture, if the student is "behind" in the notes, etc.

Respondents noted, that presentation is obligatory at lectures, as it helps to master the material better.

The preparation and conduction of practical exercises using presentations allows to more effectively organize the stage of self-mastering of learning material by student, demonstrate their preparedness, as well as creatively fulfill themselves. Classes become more interesting and diverse, and most importantly - more structured.

IV. CONCLUSIONS

Electronic presentations are part of the academic complex and significantly expand the educational space of the learning session. The multimedia environment is a powerful motivational factor, promotes personal and professional self-improvement, makes it possible to set adequate goals and choose ways to achieve them, and contributes to the accumulation of factual knowledge.

The characteristics of multimedia technology include a number of advantages. The presentation allows to structure the learning material. It disciplines both the lecturer and the listener, because do not distract from the general theme of the session. During the process of learning session. Thanks to the presentation, different types of memory are effectively stimulated: emotional, semantic, imaginative, operational and long-term.

On the other hand, the presentation simplifies or “vulgarizes” the educational process, because structuredness often “hides” the simplification of the content of the learning topic. The presentation often weakens learning attention, students no longer carefully listen to lecturers, select learning material according to the degree of importance, smartphones are used to capture information, and pictures often do not reflect the sequence of slides.

There is one more alarming fact. Cases, when digital presentations are popularizing or “entertaining”, are known. The teacher establish goal to only attract attention, increase his own rating in the eyes of students with the help of the presentation.

Presentations, prepared by students, contain low information richness, the pursuit of only emotional impact. Often, both the teacher and the student use ready-made presentations, that are not always correlated with the content of the learning material.

In order to avoid specified shortcomings, presentation authors should clearly establish goal and tasks of digital production. A masterfully made presentation can attract the attention of students and arouse interest in studying. However, one should not get carried away and abuse the external side of the presentation, related to special effects. If you overdo it, the effectiveness of the presentation as a whole will decrease.

The authors of learning presentations should take into account not only the contents fullness, but also the technical nuances in its preparation: font size, color scheme, use of animation effects, etc. All these components have a significant impact on the process of perception, interpretation and memorization of information. A critical assessment of the

quality of prepared presentations helps to improve the quality of prepared digital material.

Another important aspect in the preparation of school teachers should be kept in mind. For future teachers, a learning session, with use of a multimedia presentation, allows to get methodological experience in using such educational technology.

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