Cicović Sarajlić, D. et al. (2024). Possibilities of application of modern educational technology in teaching art subjects, *SCIENCE International journal, 3*(4), 175-180.
doi: 10.35120/sciencej0304175c UDK: 373.3.091.3-028.33:7

POSSIBILITIES OF APPLICATION OF MODERN EDUCATIONAL TECHNOLOGY IN TEACHING ART SUBJECTS

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Abstract: The paper discusses the possibilities of application of modern educational technology in teaching art subjects, specifically music and art culture, in primary school. Modern educational technology, including digital platforms, multimedia tools and interactive applications, offer significant potential for enriching the teaching process, making it more dynamic, interactive and adapted to the needs of students. Using these resources, teachers can combine traditional teaching methods with modern technologies, which allows students to learn in a way that is more adapted to their interests and needs, with a richer visual and audio experience. In this regard, the aim of this paper is to explore the advantages and challenges of integrating these technologies into teaching art subjects. Special attention is paid to the impact of technology on student creativity, motivation and engagement, as well as the role of teachers in integrating these resources into teaching. The paper emphasizes the importance of developing teachers' digital competencies, which are key to the successful implementation of modern teaching of art subjects. The role of the teacher in such teaching is multifaceted and requires responsibility, patience and flexibility. The teacher acts as a guide and mentor who helps students safely explore and use all the opportunities that technology offers them, while at the same time encouraging them to creative expression and independent learning. With proper guidance and support, the teacher helps students develop not only artistic, but also digital skills that will be valuable to them in the future. The paper presents examples of good practices and recommendations for improving teaching through the innovative use of modern educational technology.

Keywords: modern educational technology, teaching of music and art culture, primary school
Field: Humanities

1. INTRODUCTION

The presence of modern technologies in all areas of life in the 21st century has influenced the need for their application in education as well. The justification of this need is based on the general social importance, on the future professional relevance of modern technologies, on the pedagogical effects in improving learning and learning results, and on the potential of changes that could occur in institutions such as schools (Nadrljanski et al., 2016, pp. 16-17). As technical and technological development takes place at a high speed, "the teaching itself must understandably follow everything that is happening in the outside world and to a greater or lesser extent follow that development, enriching it through new goals, contents, methods and forms of work, teaching aids, technical devices..." (Popović, 2007, pp. 59). Modern educational technology should not be understood only as "the application of computers (which is inevitable today due to their many possibilities of use) but as the application of various forms, ways and methods of work in the educational process made possible by technical devices such as various forms of television, video, satellites, telecommunications, educational networks and services, optical technology and etc. Although computer technology has taken over the numerous possibilities of using earlier teaching aids and resources, the role of educational technology has not diminished, but on the contrary, it has increased its role and importance because it has gained new possibilities of use with a better quality of presenting the existing reality and influence on students" (Даниловић, 2009, pp. 959). Accustomed to a multitude of diverse information that comes to them at high speed thanks to modern technologies, students expect constant attention in various creative ways. In this regard, teachers are expected to learn quickly, be dexterous and adapt to the situation, so the application of modern educational technologies should include all solutions applicable to the teaching process, such as the use of digital platforms, multimedia tools and interactive applications that offer significant potential for enrichment teaching process, making it more efficient, comprehensive and adapted to the needs of students. With a multimedia approach to the teaching process, "not only the style and way of work changes, but also the quality of knowledge to a large extent. This creates conditions for the acquisition of more diverse, dynamic and complex knowledge" (Stanković, 2012, pp. 159). The use of modern technologies opens up numerous opportunities and

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perspectives in education. They offer a wide range of new opportunities for learning, teaching and access to knowledge at all levels of education and within all subjects.

Technology enables quick and easy access to a wealth of information from various sources. Students can use the Internet, online databases, digital books, and other resources to expand their knowledge and explore topics of interest. Technological tools enable the personalization of the educational experience, adapting the teaching process to the individual needs and way of learning of each student because they have "such possibilities that it can simulate the natural flow of the teaching process to the greatest extent possible, individual and independent ways, forms and methods of learning, and can create such an intellectual environment, or learning environment, in which each student can progress to the extent that his intellectual abilities, motivation and prior knowledge allow him" (Bilandžija, 2010, pp. 238). Adaptive software, interactive tutorials and personalized courses are some examples of technological solutions that support personalized learning. Technology can improve students' engagement through interactive activities, games, simulations and other multimedia content, through which they can have a better experience in learning and acquiring knowledge. These tools often encourage greater interest, motivation and active participation of students in class. Digital learning platforms enable collaboration and communication between students and teachers regardless of geographical distances. Students can collaborate on projects, share ideas, provide feedback, and learn from each other through online discussions, forums, group work, and other tools, which fosters the development of social connections among students and enhances their collaboration. Modern technology enables the collection, analysis and interpretation of data on student progress. Teachers can use this information to adjust their teaching methods, identify areas that require additional support, and provide individualized support to each student. By accessing different tools and technologies, teachers can improve the quality of teaching and facilitate learning. In addition, information technology can be "useful to them in all phases of the teaching process, both in the preparation phase and in the implementation phase. In the phase of teacher preparation, it is particularly important due to the possibility of collecting data, analyzing information and preparing content that include different types of media, the availability of information, content and different sources that can to use in teaching, as well as for communication and exchange of information with colleagues. In addition, its application simplifies and makes the assessment and testing of students' knowledge less subjective" (Maričić & Purić, 2011, pp. 815). Observed from these aspects, technology becomes a necessary and integral part of modern educational practice, improving the quality of teaching and learning, and providing students with the opportunity to develop the necessary skills for the 21st century, including working with information, communication, creativity and critical thinking, as well as the ability to connect their knowledge with the real world through practical applications of the learned material.

With the aim of pointing out the necessity of developing teachers' competencies related to the use of modern technologies in teaching, UNESCO published a project called the UNESCO ICT Competency Framework for Teachers. This document defines a common platform and frameworks of digital competences that should be possessed by a teacher within the framework of modern or future educational practice. Among other things, teachers should be: aware of the educational policy that indicates the importance, role and obligation of applying modern educational techniques and technology in teaching; able to integrate ICT into their curricula; get to know where, when, how much, why and how to use ICT in classroom activities; get familiar with basic hardware components and software operations; able to use technology with the whole class, small groups, but also in individual student activity; get in touch with various tools and educational software that are directly related to their subject and with applications that can be of didactic use when mastering teaching topics and content (UNESCO ICT, 2011). Furthermore, this document supports initiatives related to the integration of ICT in teacher education, equality in education, quality of learning and teaching, professional development of teachers, more efficient management of education, as well as more efficient management of administration.

Dealing with the issue of modern university education, Stanković (2012) states that unfortunately, in our region, the development and application of modern technologies in education is proceeding at a much slower pace (than the needs dictate) compared to the developed countries of the world and their educational systems. This author concludes that, among other things, it is necessary to "involve and connect with the main faculties, because after obtaining the diploma, teachers are almost left to their own devices, not to mention the large presence of earlier personnel who did not even have the opportunity to study educational technology during their education. It is necessary to intensify and accredit as many courses as possible, organize symposiums and seminars, especially research projects in this field, in order to raise the awareness of educators even more and adequately popularize the most modern pedagogical achievements" (Stanković, 2012, pp. 163). Other authors also point to the fact that the integration of modern technologies into the educational process requires appropriate training and digital

competences of teachers, because technology as an instrument is not enough by itself. In their opinion, it is crucially important that "teachers are ready to function in a more open, flexible environment. It is for this reason that it is important for teachers to be familiar with trends and tools in education, in order to see the advantages of using new tools and adapt and use them in the best way in teaching" (Bošković, et al., 2020, pp. 29). Considering that a very unfavorable situation prevails in our educational and teaching practice when it comes to the introduction of innovations in the teaching process, especially when it comes to the application of modern educational technology, the authors Arsić and Zaporožac (2021) raise the question of the possibility of overcoming the current situation. According to their opinion, it is necessary, first of all, to create awareness of the need to introduce innovations into the teaching process and adopt a clear strategy that should enable: 1) the introduction of the subject of modern educational technology (as mandatory) in the study programs of teaching faculties; 2) organizing quality training by introducing a "special group" of elective subjects in the domain of pedagogical-psychological and didactic-methodical character as well as educational technology for those teachers who have completed or are completing "non-teaching" faculties, and are employed or will be employed in teaching; 3) bridging "misunderstandings" between experts in technical and social sciences, especially pedagogical sciences, and developing awareness among both "that they can understand each other"; 4) creating a favorable pedagogical climate for the introduction of innovations in teaching through the motivation of teachers, but also of all those who are involved in any way in the organization and implementation of the teaching process (Арсић & Запорожац, 2021, pp. 362).

Immensely valuable research results are the one provided by the authors who dealt with the issue of remote learning during and after the COVID-19 pandemic (Vasojević, et al., 2021; Jovanović & Dimitrijević, 2023; Wang & Zheng, 2021). Chinese authors Wang and Zheng conclude that after the full opening of schools, we should pay attention to the positive experiences and successful pedagogical practices during the previous period and try to make it part of the new normality. These authors indicate that it is particularly important to understand the benefits of using ICT as part of the curriculum and the improved competence of teachers that will enable them to integrate technologies into pedagogical activities. They also point out that, in the post-COVID-19 period, technology can be integrated into education in a number of ways by teachers knowing how to use national platforms, conducting synchronous online lessons, organizing video-based flipped learning and using TV and radio programs for learning. Such acquired knowledge enables teachers to face challenges in new ways and to integrate all successful practices into school teaching in the period after COVID-19 (Wang & Zheng, 2021). Jovanović and Dimitrijević (2023) were engaged in research aimed at examining the barriers that students encountered during the implementation of remote learning during the COVID-19 pandemic. The research was conducted on a sample of 424 high school students using a specially designed instrument that included 40 potential barriers that were grouped into nine dominant factors: socio-emotional, substantive, communication and support, technical skills, assessment, technical conditions, administrative, organizational and cheating on tests. A ranking of the selected factors "showed that in our sample, cheating on tests and assessments was the most common obstacle, while technical skills were the least obstacle. The obtained results indicate significant pedagogical implications in the field of didactic-methodical education and professional development of teachers, but also the need to empower them for cooperative and team work" (Jovanović & Dimitrijević, 2023, pp. 102). Some of the mentioned problems, but also the advantages that teachers faced during remote learning before and after the time of the coronavirus pandemic, represent extremely valuable experiences that change the way we learn and teach today.

The introduction of modern educational technologies in the teaching of art subjects, specifically music and fine arts, in elementary school, opens up new opportunities for teaching and learning, enriching traditional methods with interactive, dynamic and personalized approaches. Thus, students can learn "to critically interpret media messages, to convey their ideas through multimedia art forms in a collaborative environment, show creativity and innovative ideas, possess information and media literacy, use ICT, be flexible and adaptable, productive and responsible with interdisciplinary and multicultural education" (Ilić, 2019, pp. 3). In addition, the application of modern technologies in art subjects facilitates the learning process, allows students to explore new media and develop creative skills through interactive digital tools. This topic becomes especially important in today's society, where children already have contact with digital technologies from an early age and "come to school with rich experience, their interest in information and communication technologies and experience in their use is a good prerequisite and motivation for further developing that knowledge at school" (Ilić, 2015, pp. 5). Using the available resources of modern technology, combined with traditional teaching methods, students are enabled to learn and create in a way that is more adapted to their interests and needs, with a richer visual and audio experience.

Based on everything that has been said so far, it is clear that in the teaching of art subjects - art and

musical culture in elementary school, the educational process today implies the indispensable application of modern educational technology. Digital technology thus becomes an integrative element that combines the creative aspects of art with technological possibilities, making the teaching of these art subjects more accessible, interactive and current for students. By finding common concepts that connect these two fields, technology and art, the foundations are created that allow them to complement each other and create new opportunities for creative expression and learning.

2. DIGITAL TECHNOLOGIES IN THE TEACHING OF ART SUBJECTS - ADVANTAGES AND CHALLENGES

The subjects of music and art culture are an integral part of the primary school educational system. These teaching disciplines, through various artistic activities and creative processes, contribute to the development of students' creative abilities, aesthetic experience, and artistic expression. Music culture is a subject that deals with the development of students' musical abilities and skills, learning about the development of musical art through its historical development, as well as learning about the musical traditions of their own and other nations. Activities such as singing, playing, mastering the basics of musical literacy, listening to music and creating music contribute to the development of students' musical taste, creativity and ability to express themselves musically. Art culture is a subject focused on visual arts and allows students to express themselves through drawing, painting, sculpting and other forms of artistic creativity. Students learn different techniques of artistic expression, become familiar with artistic styles and culture, and develop aesthetic sensitivity. Both subjects play an important role in developing a love for music and visual arts, as well as the emotional and creative development of students, helping them to understand and value artistic expressions both in their work and in art and culture in general.

In the conditions of general digitization and computerization, the use of digital platforms, multimedia tools and interactive applications in the teaching of music and art culture is becoming more common, enabling students to access contents and resources that would otherwise not be available in a traditional school environment. Such tools provide students with the freedom and opportunity to create and produce, while learning about digital technology and multimedia forms of expression. However, with an emphasis on the specifics of these artistic disciplines, which are traditionally based on practical work and interaction with sound, shapes, colors and materials, it is necessary to point out that modern technologies do not replace traditional artistic media, but rather they only expand them to the possibilities of artistic expression, communication and perceptions. Contemporary media are not used in isolation from classical artistic media or in an isolated cultural context. Modern and traditional media should be used together, they should be used by taking the best of both media" (Ilić, 2019, pp. 110), because although it brings numerous advantages, digitalization of teaching also poses certain challenges for students and teachers.

The integration of modern technologies can significantly improve interactivity, student motivation and creativity in teaching. By using certain resources, teachers can combine traditional teaching methods with digital technologies, which allows students to learn in a way that is more adapted to their interests and needs, with a richer visual and audio experience. The application of digital platforms and tools must be adapted to the age of the students, so that they can use these resources independently or with minimal help from the teacher in the most effective way. Some of the platforms and tools that are suitable for primary school students are: Google Classroom is a platform useful for organizing tasks and materials, and in teaching art subjects it allows teachers to post audio and video materials, images of works of art or links to digital content. This platform is easy to use, even for younger students, with minimal training; YouTube contains a large number of videos in the field of music and visual arts that are adapted to the age of students. YouTube Kids is an even safer option, aimed at younger users, with content filtered and adapted to their needs; Kahoot! and Quizizz are tools suitable for creating quizzes and interactive games that allow students to test their knowledge in a fun way. Both tools are suitable for elementary school students because they are visually appealing, intuitive and fun, and can also be used to practice art concepts; The Google Arts & Culture platform enables virtual tours of museums and galleries, which is an ideal way to introduce students to works of art and cultural landmarks from around the world. Upper elementary students can discover art with quality images and easily accessible information. Soundtrap for Education is an online music recording and editing platform that offers a simple interface suitable for elementary school students. It allows students to experiment with sound and create their own music, which can be very stimulating for their creativity in teaching music culture; Canva for Education is a useful tool for creating digital posters, presentations and other visual creations. Her educational program is free and easy to use, with a variety of templates that students can use to create their own artwork; Platform ClassDojo provides support for communication and partial integration of teaching content. It

is mainly used for communication between teachers, students and parents, but it also has the option to post short educational videos and photos, which can be useful in teaching art subjects; Procreate Pocket is a tool available for mobile devices that allows the creation of digital art. Procreate is suitable for upper elementary students who are interested in digital painting, as it provides numerous options for drawing and image processing; Chrome Music Lab is a free online tool that allows students to learn basic music concepts through interactive activities. The laboratory is easy to use and adapted to younger students, who can explore basic musical elements (rhythm, melody, harmony...) in a fun way; Scratch is a visual programming language that enables the creation of animations and games, but it can also be used in art classes to create interactive stories and visual projects. The platform is youth-friendly, making programming and art accessible and fun. When choosing and applying these platforms, in addition to the age of the students, it is important that the teacher also takes into account the level of their digital skills. For younger students, simpler tools and those with a visually appealing interface are recommended, while older students can work on more advanced projects and use more complex platforms.

The role of the teacher in explaining and guiding students through digital activities in the teaching of art subjects is of crucial importance for the successful and purposeful use of technology. The teacher acts as a guide and mentor to help students safely explore and take advantage of the opportunities that technology provides. With proper guidance and support, the teacher helps students develop not only artistic, but also digital skills that will be valuable to them in the future. In this regard, a teacher who uses digital tools and platforms in teaching should possess key digital competencies, namely: use a computer, tablet or smartphone at a basic level, including the ability to work in operating systems (Windows, macOS or Android), navigate in internet browsers and using basic programs such as word and spreadsheet processors; is familiar with educational platforms that facilitate the organization and implementation of classes (Google Classroom, Microsoft Teams or Moodle), and knows multimedia tools adapted to the teaching of art subjects; knows how to create and manage various digital contents (presentations, videos and visual materials); knows how to use digital tools to encourage interaction and collaboration among students (Google Docs, Padlet or Nearpod); knows how to integrate technology into the curriculum so that it supports and enhances learning, rather than technology being just a supplement without an educational purpose; is able to check the quality, relevance and reliability of digital content, as well as to evaluate student achievements in digital tasks; is familiar with the basic principles of online security and privacy, in order to ensure the protection of student data and his safety while using the Internet; understanding the ethical and legal aspects of using digital content (respect for copyright, proper citation of sources and ethical behavior on the Internet); support for students' digital literacy and continuous learning and adaptation to new technologies.

Although digitization of teaching brings numerous advantages, it also poses certain challenges for students and teachers. Potential risks include over-reliance on technology instead of traditional techniques and methods essential to the development of artistic abilities; lack of personal expression and intuitiveness, which leads to a decrease in the originality of artistic creation and works of art; distracting students from the actual artistic creation and consideration of details in their works due to the simultaneous use of multiple tools, applications and platforms; lack of personal touch and creativity in works of art due to excessive commercialization and use of templates; the loss of fine motor skills as an important aspect of artistic work in traditional media, as well as the danger of inadequate protection of privacy and data security. In this context, it is important that technology is used as a tool to improve teaching, not as its replacement, and that teachers carefully choose which digital tools and platforms to include in teaching in order to encourage the development of students' artistic skills and creativity in the best way.

3. CONCLUSIONS

Modern educational technology, including digital platforms, multimedia tools and interactive applications, is becoming more and more prevalent in the teaching of music and art in primary school, allowing students to explore different artistic media, combine sound, image, text and animation in their works, which significantly expands the range of their creative expressions. This availability of tools and resources gives students the freedom to experiment and develop their ideas in ways that were not possible in traditional classroom settings. By applying digital technologies, teachers have the opportunity to improve their pedagogical work, providing students with a more comprehensive and interactive education. In this context, teachers play a key role as facilitators, who not only impart knowledge, but also guide students through the process of digital creation, encouraging them to explore and express their own ideas. Through digital platforms and tools, teachers can create different teaching patterns that stimulate active and collaborative classroom dynamics. With the digitization of teaching comes new forms of interaction

among students, who have the opportunity to collaborate on projects in real time, exchange ideas and create together. These tools not only encourage creativity, but also develop critical thinking, problem solving and collaboration skills. Teachers who know how to integrate such tools into their teaching can provide students with a deeper and more meaningful educational experience based on personal research, innovation and teamwork. Although they offer numerous advantages, digital technologies also bring certain challenges. Over-reliance on technology can lead to the neglect of traditional artistic techniques, which are still important for the development of artistic expression and technical skills. Therefore, it is necessary to find a balance in the application of technology and the maintenance of traditional artistic methods, so that students develop skills that include both digital and conventional creation. In addition, teachers must be aware of the ethical and security aspects of technology use, as well as the responsible use of resources and the protection of student data. Finally, digital technologies are not only a tool that makes teaching more efficient and interesting, but also a catalyst for changes in the education system. Those who know how to use them in the right way can significantly improve art education and create future generations of students who will be ready to use technology as a tool for creation, innovation and expression. In this sense, teachers have an important role in training students to understand and use technology in a responsible and creative way, which is the key to developing artistic expression in the digital age. Digital technologies are a necessary and inevitable part of modern education. Their integration into the teaching of art subjects has the potential to significantly improve students' creative development, encourage innovation and enable new ways of expression. However, in order to fully utilize this potential, it is necessary for teachers to constantly improve their digital competences, as well as to find a balance between traditional and digital teaching methods, so that students get the best of both teaching models.

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