

# **DIGITALIZATION IN EDUCATION – A GUARANTEE FOR A SUCCESSFUL TEACHER**

**Kremena Stoyanova, Kosta Garov**

**Abstract:** Digitalization is transforming all parts of society, including education. It is occurring with or without strategic initiatives that change the quality of teaching and learning. Integration of technology into education is not new, but the rapid rate of technological advancement is, especially concerning digital technologies. In place of the “traditional” electronic approach comes a new philosophy of education – Digital Education. The transformation in education presents many opportunities and challenges, given trends and developments in digital technologies. The article discusses the requirements for the teachers in the transition to digitalization in education.

*Key Words: digitalization, education, digital tools*

## **Introduction**

The dynamics of the world we live in sets new parameters and requirements for the pedagogical community. The main mission of the modern school is to teach its pupils the attitude, knowledge, and skills they need in order to work, and to show high civic consciousness.

The 21st century classroom is changing dynamically. We live in a society in which digital literacy is constantly growing and therefore it is necessary to apply new information and communication technologies (ICT) for pedagogical purposes in every learning activity. ICT offers an incredible wealth of digital resources and tools that are about to be implemented in school.

High technologies create a new type of education, which brings to the new priorities in the didactic strategies. This opens up great opportunities in terms of motivating students to be more active in class, and also significantly supports the teacher’s activity with new tools and resources. Students have the feeling that the school is very close to what they are accustomed to – working or having fun in their daily life.

The issues on the agenda are related to a complete rethinking of the goals of education, respectively to the change like the pedagogical interaction.

- Should globalization move into the classroom so that we create competitive people, not just educated people?

- What principles have to be laid down in the educational system in order to meet the needs of the students?
- What should be changed in the methods and forms of education to stimulate the creative potential of the students, without hindering the quality of their education?

### **Digitalization in education as the challenges for every teacher who wants to be successful**

It comes to no surprise that the younger generations are heavily influenced by computer technologies, not only as a means of obtaining information, but also as a way to create a new culture. The spread and accessibility of the Internet have created a new definition of the “growth” process. According to research data, most students’ ideas are formed not only by what surrounds them but also by the information they receive through usage of various technologies.

The world of technology has always had a significant impact on education and is constantly changing it. Multimedia entered the classrooms a long time ago and so e-mails and social media have taken the place of conventional note-taking methods. Nowadays students prefer to use digital devices and are overloaded with visual information coming from various sources, which stimulates sensory and short-term memory. This results in them often lacking concentration during class activities and having low levels of motivation.

Technology is constantly changing the way students learn and teachers are always looking for new resources and tools to use in order to engage students in the studying process. Digitalization in education allows for the creation of various interactive teaching resources and helps to implement feedback from students. This aspect offers effective control over the digital assets in order to ensure a better teaching process suitable for the different learning types of the students.

In today’s world, if a teacher wants to be successful at what they do, they no longer need just a good understanding in their field of study, but also a modern accessible methodical approach and a proficiency in the use of media and technologies for class activities.

With the use of a mobile device or tablet, teachers and students alike can use different apps to access projection-based, location-based or recognition-based experiences so that objects, artifacts, or media appear to be in the room. That way, students can interact with the content by moving around, getting closer to it and manipulating it to research and learn more information about it.

When students use digital tools during a lesson, they want to dive into the content and do not want to stop learning or exploring. They are more willing to

use critical thinking, problem-solving, and communication skills in order to explore the lesson or activity. Whilst using a variety of apps, students can create projects that correlate with curriculum standards and concepts to show what knowledge they are familiar with.

During the pandemic, many teachers turned to Google Workspace. They used Google Classroom to distribute assignments and grade work, Google Docs and Google Slides to create interactive tasks for their students. The ease of use and collaboration possibilities within Google Workspace has made it a staple for virtual, hybrid, and in-person teaching.

Digital tools for education provide the opportunity to teach anywhere, whether it be in or out of the conventional classroom. They are the new future of the classic lessons, making them easily accessible by anyone, anywhere in the world. There are some really useful educational platforms like SeeSaw, ClassKick, Exam and Google Classroom. They present an opportunity for every teacher to watch their students do class activities in real time, with insights and an option for instant messaging to provide personalized feedback for their assignments.

By using the opportunities that educational platforms present, teachers can create real-time experiences. They can observe their students working on assignments, see them submit answers and have their work graded automatically and most importantly, teachers can provide valuable feedback instantly.

Nowadays teachers can upload various contents for their lessons – slides, PDFs, text documents, videos, etc., directly to the educational platform, making it easily accessible to students at any time. Digital tools make it easy to see the level of students' progress and adapt lessons to their needs – whether they are physically or virtually in the classroom.

Some educational platforms offer grading the students' work as they go. The teacher can intervene as needed with personalized, real-time text, audio, visual and video feedback options. With auto-grading options, teachers can focus on what matters – customizing learning experiences and giving valuable feedback to their students. By using these helpful digital tools, they can track student progress over time and adapt to their learning strengths and needs.

There are applications such as LearningApps, WordWall, Live worksheets, where students can engage with audio, video, text, images, drawings, uploads, and more. Teachers can use multimodal questions and content options to engage every learner.

Digitalization offers many possibilities for the schools of tomorrow, using an all-in-one platform of cutting-edge features designed to help teachers reach every student, at any time. Using these tools, they have the option to track and

see students respond to questions in real-time and provide personalized approach to every student.

### **Difficulties in introducing virtualization in school**

Given what has been said so far, e-learning seems to be a useful strategy for successfully combining methodology and training in one activity. However, its application in educational activities is not an easy task.

The first difficulty may arise in selecting resources that correspond to the level of understanding of different students. Another obstacle may be the students' disability to understand and interact with the provided resources and it might take some of them a longer time to work on certain tasks.

According to a study by the Institute for Educational Research, the main difficulties in working in an electronic environment can be summarized as follows:

- Providing the educational process with electronic devices, Internet connection, access to electronic platforms, etc. is an important prerequisite for the integration of technology in the learning process. This is essential as it provides an opportunity for active interaction between the teacher and the students and between the students themselves. Most parents share that their children have their own electronic device for educational purposes, yet there is still a significant percentage of students that do not have the means to participate in the e-learning process.
- The professional development of teachers, aimed at forming appropriate competencies for working in a digital environment, is a key factor for the effective management of the virtual classroom, the effective integration of technology in the teaching process, the creation and the usage of appropriate didactic materials and resources and the active interaction and involvement of students in the learning process, etc. In the last three years, more than half of the teachers have participated in qualifications related to the use of innovative teaching methods, and almost all of them have been trained to use ICT in the teaching process.
- Providing a synchronous educational process from a distance in an electronic environment and the opportunity to interact in real time with teachers and students. Half of the teachers organized and conducted a fully synchronous learning process; while the rest combined synchronous and asynchronous work organization or organized the learning process entirely asynchronously. A comparison of the results by stages of education shows that the largest share of teachers in junior

high school has conducted synchronous learning in an electronic environment, followed by teachers in high school and primary school.

- Effectiveness of teaching in the context of e-learning. There are significant differences between the way of teaching and distance learning in an electronic environment compared to the conventional learning process. Most often, e-learning is accompanied by independent work in various e-platforms. Even so, there are still some teachers that prefer to send scanned or photographed copies of teaching materials as assignments and require their students to send a copy or photograph of their answers in return.
- Ensuring access of teachers and students to a variety of electronic platforms and educational resources is a key condition for successful distance learning in an electronic environment.
- The choice of precise language instructions would help to speed up the process of perception by focusing on the subject studied.
- Lack of understanding of the instructions can lead to a decrease in students' motivation.
- The assessment of students in the conditions of distance learning in an electronic environment is carried out mainly through online tests. Almost all students indicate that they have been assessed by online tests or conventional tests in another format. Most of them received marks for their participation during online classes. Again, almost all of them received evaluations for project implementation. But even so it is relatively rare for students to receive quality feedback on whether they are able to cope with the set tasks.

## **Conclusion**

Nowadays, educators tend to agree with Marc Prensky [5] about the exchanged roles of students and teachers, as well as their new relationships inside and outside the classroom.

In the information society, where technology is evolving extremely fast, the situation at school is changing dramatically and students (“digital natives”) are not happy when they are taught by teachers who are “digital immigrants”. As educators, we can provide our students with opportunities and experiences they might not otherwise have that will be vital to their future.

So, if we want 21st century education to keep in pace with technological advances, decisive steps must be taken to update the curriculum and digital competence of teachers.

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