

## **THE EFFECTS OF DIGITIZATION ON THE INSTRUCTIVE - EDUCATIONAL ACT IN THE SCHOOL ORGANIZATION**

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### **Abstract**

Digitization has a significant impact on the instructive-educational act in school organizations and determines easy and fast access to a wide range of educational resources, including e-books, videos, simulations and interactive materials. This enriches the learning experience and allows teachers to provide concrete and varied examples. The purpose of this study is to obtain the necessary information to be able to identify the effects of digitization on the instructional-educational act. The opinion poll was used as a research method for the case study, the research instrument being the questionnaire.

### **Keywords**

digitization, instructional - educational act, school organization, teaching staff.

### **JEL Classification**

M15, O15

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### **Introduction**

Incorporating information and communication technology into the teaching-learning-assessment process offers the new generation the opportunity to develop digital skills that can be applied in learning every subject. The main goal is to create the necessary conditions for effective collaboration between teachers and students, thus contributing to the provision of quality education (Ashforth, 2020, p. 1763).

Today's society is highly digitized. Various studies have pointed out that the creative and balanced use of technology brings real benefits, contributing to remarkable results in terms of children's development, both cognitively and socio-emotionally. Technology is an integral part of today's life of the new generation.

Specialists have highlighted numerous advantages of using computers in the training process. The computer allows to achieve a high level of individualization of the educational process, being programmable and adaptable to create different learning

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situations, regardless of the age of the students. The time barrier in completing the training program is eliminated (Martinez & Broemmell, 2021, p. 110).

New technologies represent an essential step in the didactic process, complementing traditional teaching-learning-assessment methods with modern approaches adapted to the current generation of students (Sibley et al., 2020, p. 618).

The integration of digital tools in the learning and assessment process is becoming a growing necessity with the advance of information technology. It contributes to the promotion of active learning, the adoption of a differentiated approach to learning and the development of creativity and critical thinking (Arora & Srinivasan, 2020, p. 43).

Teachers can use digital tools to create interactive lessons, multimedia presentations or virtual tours. This way of teaching becomes more attractive to students, and the result is better understanding and retention of knowledge.

In addition to traditional teaching resources, teachers have access to a significant variety of educational resources on the Internet, such as videos, simulations and digital textbooks, which can add value to the teaching and learning process (Schuck & Lambert, 2020, p. 320).

In addition, the integration of technology in the teaching process contributes to the development of students' essential digital skills, skills that are increasingly valuable in today's labor market. By using digital applications in the classroom, teachers can set a positive example of technology use, enrich teaching content, facilitate communication, and gain time for important projects.

In studies of the impact of technology on teachers' work, concerns about how students use the Internet and especially artificial intelligence tools inevitably arise (Beycioglu & Kondakci, 2020, p. 20).

The use of artificial intelligence to cheat is a reality we have to face. This can be seen as a technological form of the habit of copying or using unauthorized resources. However, if students learn to use these tools correctly, they can help develop reading, writing, solution-oriented thinking, and even imagination.

Digital solutions allow teachers to identify areas that require additional instruction and facilitate personalized learning. This means they can tailor content to individual student needs and provide personalized learning experiences, whether in small groups or individually (Mislevy et al., 2020, p. 403).

Since the advent of artificial intelligence, educational tools have been developed that use this technology to adjust the difficulty level of tasks and lessons based on individual student progress. This allows each student to progress in learning at their own pace.

Additionally, classroom management apps and software can also provide assistance in monitoring student behavior. These tools can provide information on discipline problems, thereby facilitating early intervention and providing personalized support for students experiencing behavioral problems (Chen et al., 2020, p. 142).

It is evident that integrating technology into the teaching process is not just a passing trend, but an essential necessity in today's educational landscape. Technological solutions contribute to more efficient classroom management, simplify the monitoring of student progress and ultimately lead to improved academic results. Although there are challenges to be addressed, the benefits of technology are undeniable. By providing teachers with the right support and resources, we can ensure that technology becomes a powerful partner in the pursuit of excellence in education (Christopoulos et al., 2020, p. 317).

~~The introduction familiarizes the reader with the context of the paper. It must reflect, briefly, current research in the field and order approach presented in the article.~~

For education in the digital age, technology plays an important role in learning. Although, until now it was believed that technology would hinder and complicate the learning and teaching process, it has been found that it is actually a huge support for the current generation. Digitization in the field of education consists in making the learning process more efficient. This goal involves using digital resources to support educational goals and provide benefits to both students and teachers. The goal of digitization in schools is to improve the learning process and prepare students for the modern world, which is increasingly dependent on technology.

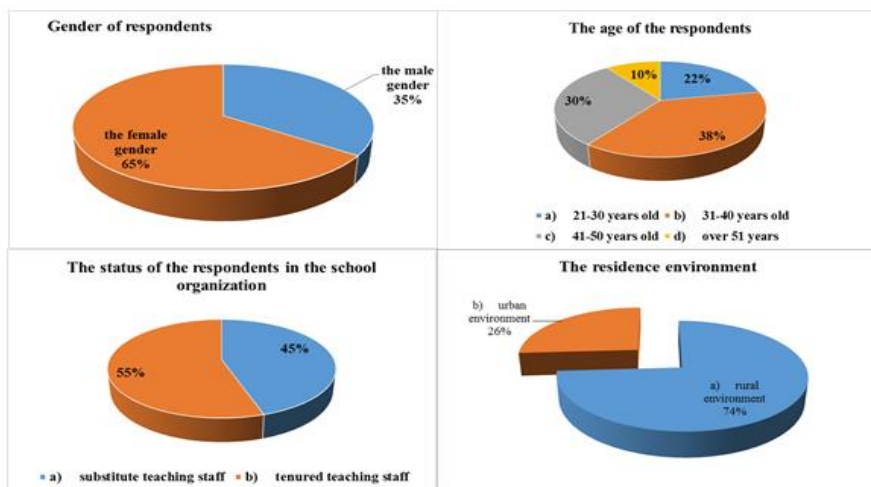
### **1. Research study methodology**

The research study wants to identify the effects of digitization on the instructive-educational act. The questionnaire was used as a research tool. The survey unit is represented by 135 teachers from high school units, from Dâmbovița county. The voluntary strategy was used, Data processing was carried out with the help of SPSS (Statistical Package in the Social Sciences) and Microsoft Excel programs.

### **2. Research results**

In order to create an overview of the surveyed sample, the personal data collected (gender, age, school status, residence environment) were processed.

Chart 1. Personal data collected

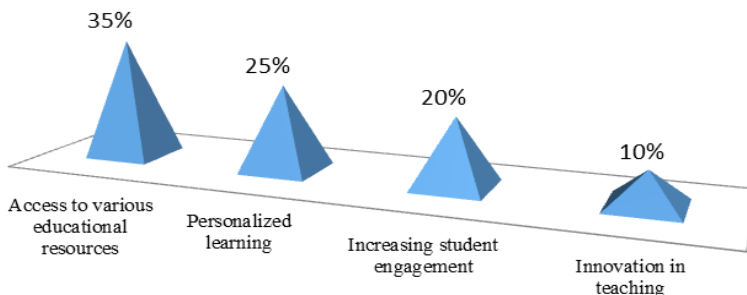


Source: developed by the author

Analyzing the information presented in graph 1, the personal data of the respondents can be observed, as follows:

- according to gender, the highest percentage is held by respondents who are female (65%) and only 35% are male; There is a significant gender discrepancy among respondents, with a higher percentage of women compared to men. This suggests a predominance of women in the teaching profession.
- according to age: 30% are between 41-50 years old, 38% between 31-40 years old, 22% between 21-30 years old and 10% over 51 years old; The most represented age group is the one between 31 and 40 years, followed by the one between 41 and 50 years. The lower presence of those under 30 and over 51 (10%) may have implications for their experience in the field and their perception of changes in the education system.
- depending on the status of the respondents in the school organization: 55% of the respondents are full-time teaching staff and only 45% are substitute teaching staff; Most of the respondents are tenured teachers, this influencing their perspective and involvement in the activities and decisions within school organizations.
- depending on the area of residence: 74% of teachers live in rural areas and 26% in urban areas. A significant proportion of teachers live in rural areas, compared to those in urban areas.

**Chart 2. The advantages of using digital technologies in the teaching-learning-evaluation process**

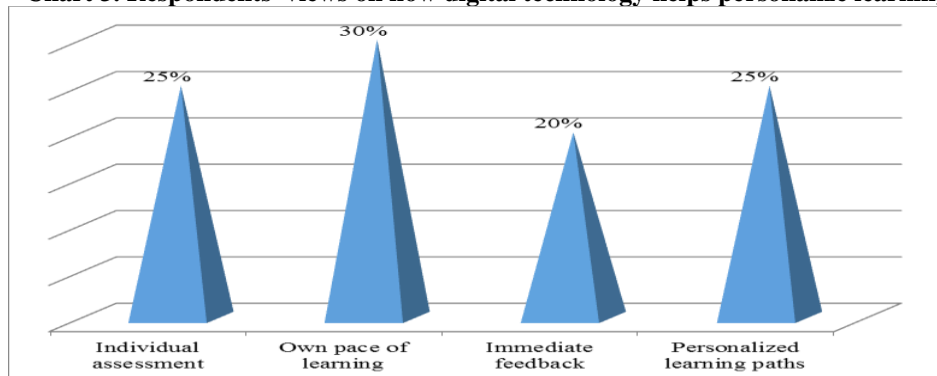


Source: developed by the author

Graph 2 shows the advantages of using digital technologies in the teaching-learning-evaluation process. These are:

- digital tools in education, indicating that most believe that these tools facilitate access to a variety of learning materials and sources.
- personalized learning (25%); A quarter of respondents appreciate the ability of digital technologies to provide an adaptable learning environment that can adjust to the needs and pace of each individual student.
- increasing student involvement (20%); For a significant part of the participants, digital technologies contribute to the greater involvement and commitment of students in the educational process.
- innovation in teaching (10%); A smaller percentage of respondents see digital technology as a tool that brings innovation and new methods to the teaching process, offering creative and effective ways to convey information.

**Chart 3. Respondents' views on how digital technology helps personalize learning**

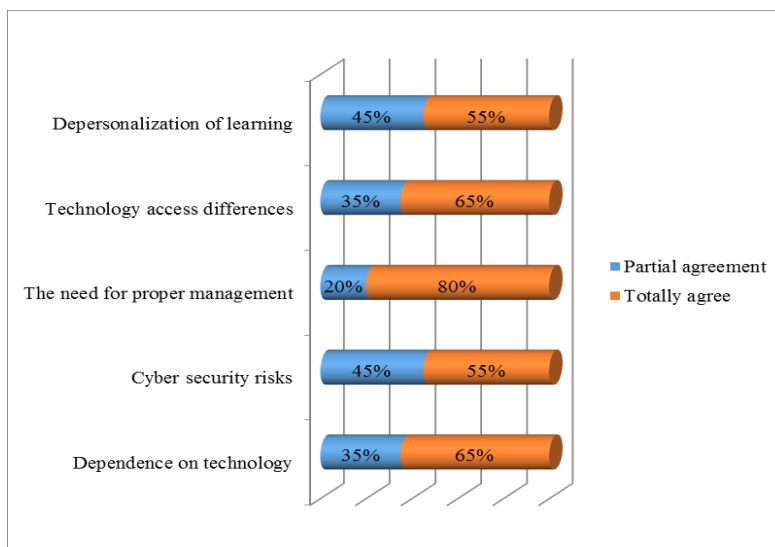


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From chart 3 highlights the ways in which digital technologies contribute to the personalization of learning, thus:

- Self-paced learning (30%): The most mentioned way in which digital technology contributes to the personalization of learning is by allowing students to progress at their own pace. This suggests that adaptability in terms of learning pace is seen as important and facilitated by technology.
- Individual assessment (25%): A quarter of respondents appreciate the ability of digital technology to provide personalized assessments, adapted to the level and progress of each individual student.
- Personalized learning paths (25%): The same percentage refers to the use of technology to create personalized learning paths, adapted to the individual needs and interests of students.
- Immediate feedback (20%): For a significant part of the respondents, digital technology offers the possibility to receive fast and accurate feedback, thus facilitating adjustments and improving the learning process.

**Chart 4. The negative effects of digitization in school**



Source: developed by the author

From the data presented in graph 5, the classification of the negative effects of digitization in the school organization can be observed, as follows:

- Depersonalization of learning (55% totally agree and 45% partially agree): Respondents believe that digitization can lead to the depersonalization of learning. This could indicate a concern about the loss of human interaction and individualization in the learning process.

- The gap between access and technology (65% fully agree and 35% partially agree): There is a discrepancy between access to technology and its effective use in education. This discrepancy can create inequities between students and teachers regarding the benefits of technology.

- The need for adequate management (80% total agreement and 20% partial agreement): The need for an adequate management of digitization within educational institutions is highlighted. This emphasizes the importance of a well-planned and coordinated approach to implementing technology in education.

- Cyber security risks (55% totally agree and 45% partially agree): there are a number of risks associated with cyber security in the context of school digitization, indicating concerns related to the vulnerability of educational systems and data in the online environment.

- Dependence on technology (65% totally agree and 35% partially agree): this aspect can raise issues related to the balance between the effective use of technology and excessive dependence on it at the expense of other learning methods.

### **Conclusion**

Education, regardless of its form, does not remain indifferent to technological progress and the advantages it brings. There is an increase in students' interest in modern means of information and new media, such as computers or mobile phones connected to the Internet.

While there are legitimate concerns about technology's negative impact on education globally (technology addiction, cyber security risks, depersonalization of learning), the significant benefits that technology brings must also be emphasized. By focusing on students and their needs, it is understood that one cannot ignore how digital technology helps to personalize learning regardless of the subject being taught.

Thus, in order to transmit the information more efficiently and more engagingly, the teaching staff integrated the new digital trends into the teaching process.

Even if technologies personalize the instructive-educational process, there is the question of school infrastructure, such as access to the Internet, equipping classrooms with video projectors and cassette players, as well as the openness of teachers and students to new technologies.

Education is lifelong and technology plays a crucial role in this process. In the age of speed, technology is essential. Non-formal education, in its broadest sense, means continuous learning and is influenced by technology. That's why the expression "Man learns while he lives" can also be extended in the context of technological evolution. New technologies and non-formal education teach us something new every day, even through technology, whether it is old or new. Technology makes information faster and more accessible, and technological literacy becomes essential to navigate the ocean of information, distinguish real from fake information, and synthesize knowledge.

A proper balance in the use of technology in school can help increase the effectiveness of the learning process and prepare students for the modern world, while avoiding excess or uncontrolled use of technology.

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