TEACHER`S OPINIONS AND ATTITUDES REGARDING PRINTED, ELECTRONIC AND DIGITAL TEXTBOOKS

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ABSTRACT
The paper deals with a significant issue within the educational process - textbooks. Textbooks are the fundamental, mandatory, didactic teaching tool intended for the acquisition of competences: knowledge, skills and values. The digital age necessitates the use of electronic/digital textbook, besides the printed ones. Starting from the academic 2021/22 year the application of electronic textbooks began, and last year, digital textbooks were prepared for some grades of elementary education in R. N. Macedonia.

The purpose of our research was to examine schools teacher`s views regarding the use of printed, electronic as well as digital textbooks.  We`ve sat several tasks related to the main goal of our research, such as: the type of textbooks teachers prefer, the weaknesses as well as the advantages of digital textbooks, etc. The sample consists of 158 teachers from I - V grade, as well as subject teachers (VI-IX) form several primary schools all over the country. We applied the research technique: survey and the following instrument – a questionnaire with 15 closed type questions. For statistical data processing we used the statistical package SPSS7. The analyses showed that the majority of teachers believe that textbooks are one of the fundamentals in the educational process and are still a necessity. Also, they consider digital textbooks as being able to offer greater interaction and allow students to progress according to their abilities, in addition to raising the level of student`s interest in education. The biggest weaknesses identified by the teachers are the following: the lack of tablets or computers for every student, as well as too much viewing of the screen.

Key words: Printed textbooks, electronic textbooks, digital textbooks, research in elementary education

INTRODUCTION

In the context of primary education, a textbook is defined as a didactic aid designed to facilitate the teaching and learning process. Its primary function is to present information in a structured manner that aligns with the curriculum and educational standards, thereby serving as a key resource for both educators and students (1).

Textbooks typically embody several essential characteristics that enhance their efficacy as didactic tools. Firstly, they are systematically organized, often divided into chapters or units that progress in complexity and build upon previously acquired knowledge. This sequential arrangement supports cognitive development in young learners, allowing them to construct understanding incrementally.

Furthermore, textbooks incorporate various pedagogical strategies, including illustrations, diagrams, and examples, which cater to diverse learning styles and promote engagement. These visual elements not only aid comprehension but also help to contextualize abstract concepts, making them more accessible to primary school students.

In addition, textbooks serve as a reference point for both teachers and students, providing a common framework for instruction and assessment. They often include exercises, reviewing questions, and activities that reinforce learning objectives, allowing for formative assessment opportunities and fostering independent learning skills. The

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selection of textbooks in primary education is also influenced by factors such as cultural relevance, inclusivity, and alignment with educational goals. Effective textbooks reflect the diverse backgrounds of students and promote critical thinking by encouraging inquiry and exploration. The textbook plays a multifaceted role in primary education. It not only serves as a source of information but also as a catalyst for interactive learning, enabling teachers to deliver content effectively while empowering students to engage with and apply their knowledge in meaningful ways. The advent of technology has transformed educational resources, particularly in elementary education. Print, electronic, and digital textbooks each possess distinct advantages and disadvantages that influence their effectiveness in promoting learning.

Print Textbooks
Advantages:
Tactile Experience: Print textbooks offer a tactile learning experience that can enhance comprehension and retention. Research indicates that physical interaction with materials aids cognitive processing (2). The act of turning pages and the physical weight of the book can create a more engaging experience for young learners.

Less Distraction: Print materials provide a focused learning environment with fewer distractions compared to digital formats. A study by Rosen et al. (3) highlights that students using print materials perform better in terms of focus and retention compared to their digital counterparts, who often encounter multitasking temptations.

Accessibility: For certain demographics, print textbooks are more accessible. According to the National Center for Education Statistics (4), access to technology can vary significantly among socioeconomic groups, which means that print textbooks remain vital for students in under-resourced settings.

Disadvantages:
Limited Interactivity: Print textbooks generally lack the interactivity found in digital formats. This limitation can affect engagement and motivation, particularly in younger students who thrive on interactive learning experiences.

Update Constraints: Print materials can become outdated quickly, particularly in subjects that evolve rapidly, such as science and technology. Updating print textbooks can be

costly and logistically challenging, limiting the currency of information presented to students.

Electronic Textbooks
Advantages
Immediate Updates: Electronic textbooks can be updated swiftly to reflect new information and educational standards, ensuring that students receive the most current material (5). This immediacy can enhance the relevance of content, particularly in fast-evolving fields.

Enhanced Features: Electronic textbooks often include features like hyperlinks, multimedia content, and interactive assessments, which can enhance learning by catering to diverse learning styles. These features can foster a deeper understanding of complex topics through interactive simulations

Space Efficiency: Electronic textbooks require significantly less physical space than traditional print books, making them easier to distribute and store. This aspect can be particularly advantageous in schools with limited resources (6).

Disadvantages
Screen Fatigue: Prolonged exposure to screens can lead to fatigue and decreased concentration, particularly in younger students. The discomfort associated with extended screen time can hinder learning outcomes.

Digital Divide: Access to electronic textbooks requires reliable technology and internet access, which can exacerbate existing educational inequalities. Students from low-income families may lack the necessary devices, leading to disparities in educational opportunities.

Digital Textbooks
Advantages
Interactivity and Engagement: Digital textbooks often provide a higher level of interactivity than both print and electronic textbooks. They can incorporate gamification elements, adaptive learning pathways, and immediate feedback mechanisms, which have been shown to increase student engagement and motivation.

Personalization: Digital textbooks can be tailored to meet individual learning needs, allowing for differentiated instruction. Research shows that indicates that personalized learning experiences can enhance student achievement and foster a sense of ownership over their learning.

Resource Integration: Digital textbooks can integrate a multitude of resources, such as videos, simulations, and collaborative tools, which can create a richer learning experience. This integration can facilitate a more holistic understanding of subjects by connecting theoretical knowledge with practical applications.

Disadvantages

Technical Issues: Reliance on technology means that technical issues can disrupt learning. Connectivity problems, software malfunctions, or hardware failures can hinder access to educational resources.

Potential for Over-Reliance: The ease of access to information through digital textbooks can lead to superficial learning. Students might develop a tendency to skim rather than engage deeply with content, which can adversely affect comprehension and retention (7, 8).

Health Concerns: There are growing concerns regarding the health implications of prolonged screen time, including issues such as eye strain and reduced physical activity. These health considerations are particularly critical for young children whose developmental needs must be balanced with digital engagement.

METHODOLOGY
RESEARCH DESIGN''

The purpose of our research was to examine schools teachers' views regarding the use of printed, electronic, as well as digital textbooks. We`ve tried to answer several questions related to the main goal, such as: What type of textbook do teachers prefer? What are the weaknesses as well as the advantages of digital textbooks? What is the experience of teachers with electronic textbooks? Should printed textbooks be replaced by electronic and/or digital textbooks? What textbook do students prefer?, etc. We applied the research technique survey and the following instrument – a questionnaire with 15 closed type questions. The sample in our research included 158 teachers from primary schools from the Republic of North Macedonia (urban and rural). The teachers in the research sample teach grades 1 to 9.

RESULTS
To focus on a few facts from our research we have chosen to present the results of the following questions:
What type of textbook do you prefer?
According to the answers to this question, as can be seen from the diagram below, 54% of the teachers prefer the printed textbooks. About 44% of the teachers decided on the joint use of printed and electronic textbooks, and only 2% of respondents indicated the use to electronic and digital textbooks.
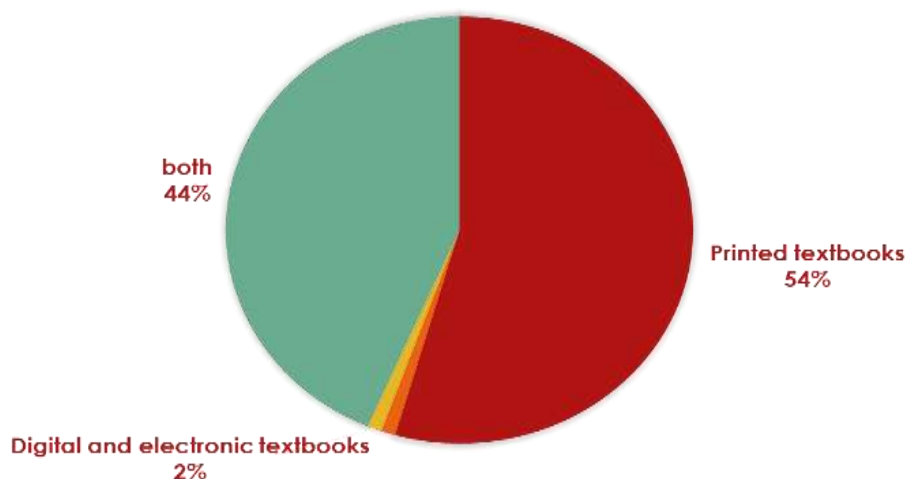
Figure 1. Distribution of answers to the question: "What type of textbooks do you prefer"?

The next question we asked the teachers was: "Do you agree that the printed textbooks must not be completely absent from the teaching process?" A high 90% of teachers completely agreed that printed textbooks must not completely disappear from the teaching

process. This high percentage of agreement given by the teachers supports the view that printed textbooks are a basic didactic aid for teachers in the process of teaching.
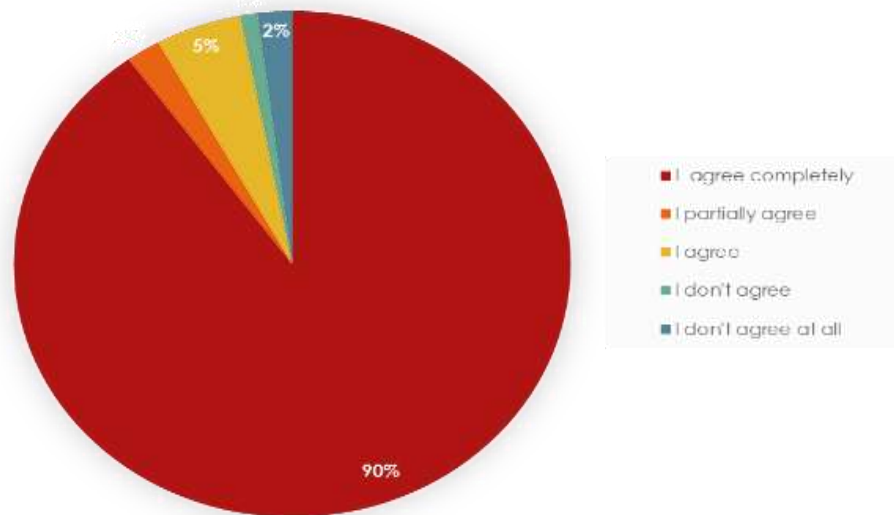
Figure 2. Distribution of answers to the question: "Do you agree that the printed textbooks must not be completely absent from the teaching process"?

In relation to the statement: "Digital textbooks have more advantages like: interaction, interesting things, quizzes etc." teachers` answers were structured as follows: Only 18% of the teachers completely agree with the above statement; 36% of the teachers partially agree and 21% provided the answer "I agree". About 20% of the teachers do not agree with the given statement, and 6% do not agree at all. So, we could conclude that printed textbooks are still very important for our teachers.
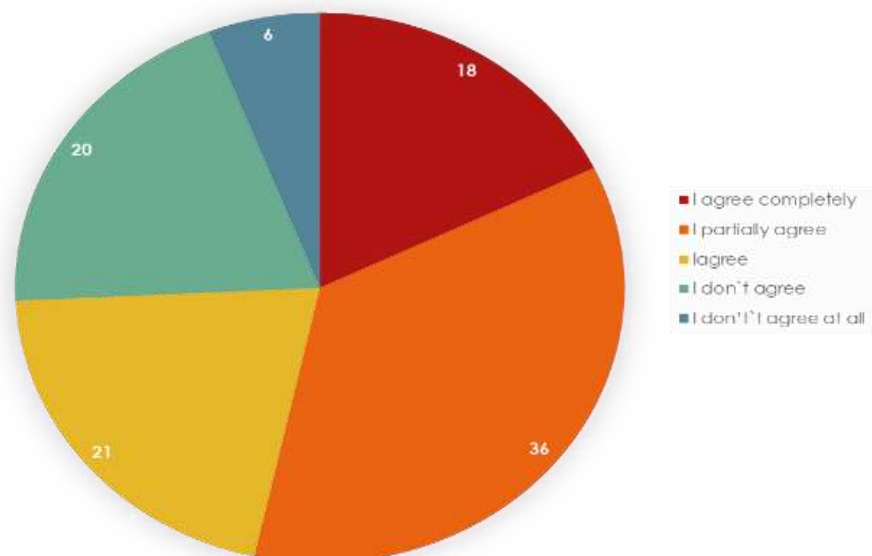
Figure 3. Distribution of answers to the statement: "Digital textbooks have more advantages like: interaction, interesting things, quizzes, etc."

Our teachers also evaluated the technical qualities of the electronic textbooks that are used in the Republic of North Macedonia. The teachers` answers are arranged as follows: 46% of the teachers answered that the technical qualities of the electronic textbooks are good, while only 4% answered that the technical qualities are excellent. 15% of the teachers agreed that the technical qualities of the electronic textbooks are very good. 24% of the teachers answered that they are sufficient and 11% gave the answer, insufficient.
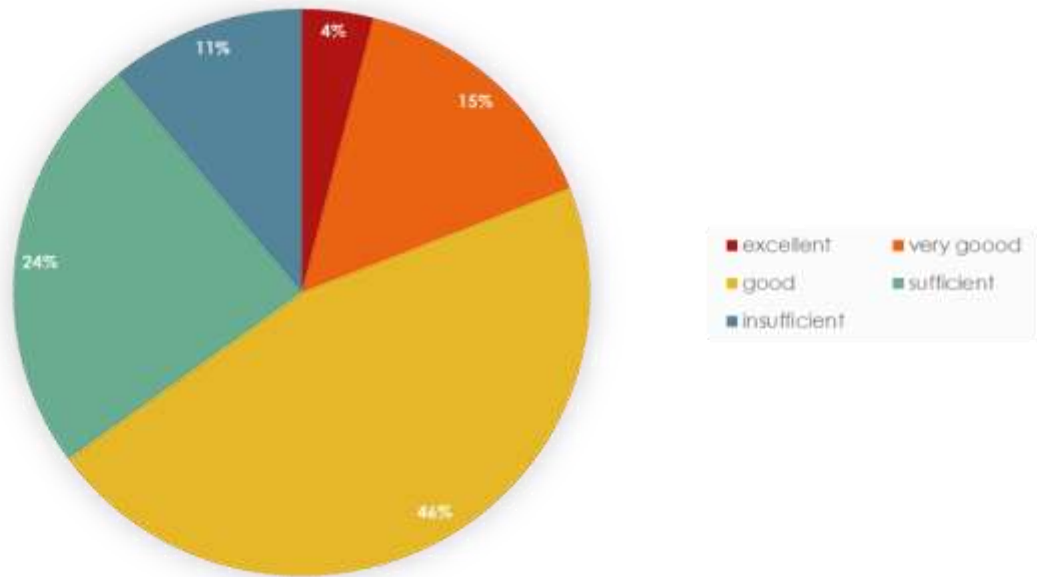
Figure 4. Distribution of answers to the statement: "The technical quality of electronic textbooks evaluated by teachers."

The following statement was also offered in the questionnaire for teachers: Combining printed and digital textbooks – the best way for efficient and quality learning 43% of the respondents answered that they completely agreed, 22% answered that they partially agreed and 22% answered that they agreee. 10% of the teachers did not agree with the statement and only 3% did not agree at all.
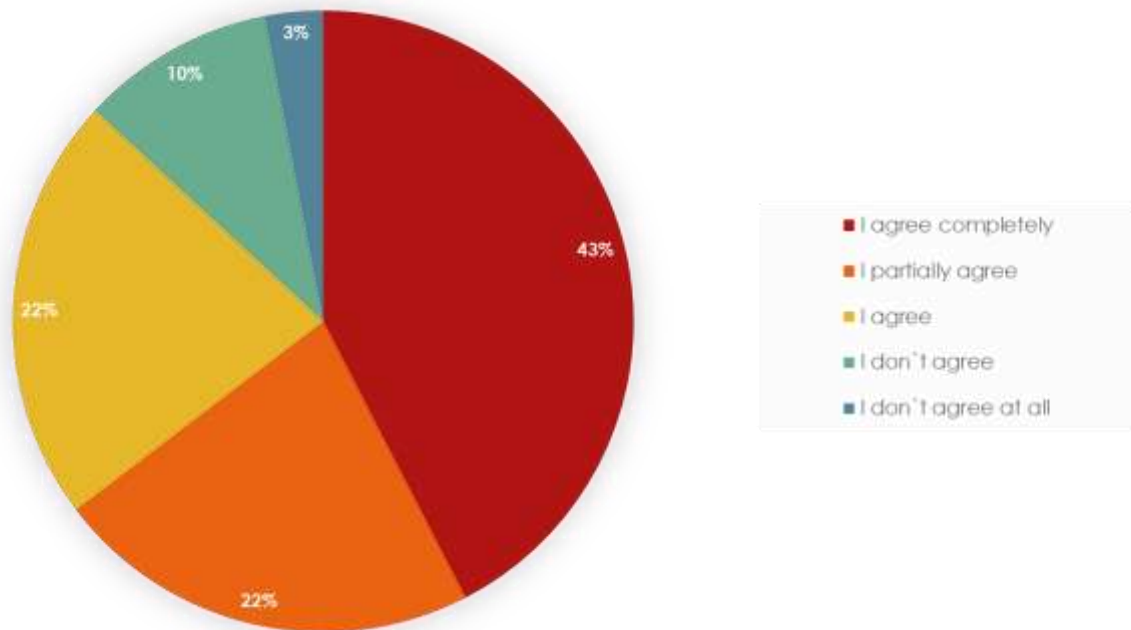
Figure 5. Distribution of answers to the statement: "Combining printed and digital textbooks – best way for efficient and quality learning."

DISCUSSION

The research instrument was designed to study the perception of primary school teachers' attitudes regarding their preferences for the use of different types of textbooks in the teaching process. From the analysis of the results, we conclude that teachers believe that textbooks are one of the fundamentals in the education process. In addition, printed textbooks are still the most acceptable textbook format by teachers. Electronic and digital textbooks are not completely unacceptable for teachers. According to our respondents, digital textbooks have more advantages, like: interaction, interesting things, quizzes etc. They point to the combination of printed textbooks with one of the electronic/digital versions as the best option for teaching.

CONCLUSION

In summary, print, electronic, and digital textbooks each bring unique advantages and disadvantages to elementary education. Print textbooks offer tactile engagement and reliability but lack interactivity and can become outdated. Electronic textbooks enhance accessibility and immediacy of updates but may contribute to screen fatigue and exacerbate the digital divide. Digital textbooks provide engaging, personal learning experiences but are susceptible to technical issues and health concerns. Ultimately, the choice of textbook format should be informed by the specific context of the educational environment, student needs, and the goals of the curriculum.

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