



Research Article

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ICT and the impact of digital textbooks in foreign language teaching and learning

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Abstract

As part of the effort to find more effective methods for teaching foreign languages, this study focuses on the role and impact of digital books within the Albanian educational context, with particular emphasis on pedagogical practices related to the teaching of foreign languages in general and French language in particular. Using a mixed methodological approach, both quantitative and qualitative, including surveys of teachers, interviews, and analysis of data collected during classroom observations, this study assesses how the use of digital technologies, including digital books, influences student engagement and their achievements in language learning. The data analysis shows a positive correlation between the use of digital books and the improvement of students' performance in various language skills. The integration of digital technologies not only increases engagement and performance but also contributes to the development of a more personalized and autonomous approach to teaching.

Keywords: ITC, digital book, foreign language teaching, student engagement, student autonomy.

1. Introduction

Foreign language teaching has undergone a profound transformation in recent years, driven by the advent of new information and communication technologies (ICT). This digital revolution, which affects many areas of education, offers new opportunities to enrich traditional pedagogical methods and to meet the growing challenges associated with language learning. Among the digital tools emerging in this context, digital textbooks have become a central feature, becoming an indispensable resource in many classrooms.

In Albania, as in many other countries, the integration of digital textbooks in foreign language teaching, particularly in French, is steadily progressing. However, access to these digital tools is not uniform across the country. Indeed, due to limited digital

infrastructure, private educational institutions often have greater opportunities to adopt and integrate ICT into their pedagogy. These institutions benefit from broader access to technological resources, allowing them to create more modern and interactive learning environments. In contrast, public schools, facing budgetary constraints and less developed infrastructure, struggle to keep pace with this transformation. The case of the French Alliances in Albania clearly illustrates this dynamic. These institutions, as pioneers in teaching French through digital tools, have revolutionized language learning by offering modern pedagogical resources tailored to the needs of learners. Through the use of digital textbooks and other educational technologies, they have been able to create more engaging and interactive learning experiences, enabling students to develop their language skills more effectively. However, for the use of technology to be truly effective, it is essential that teachers are well trained. Training teachers in digital tools is a major challenge, as it involves not only teaching them how to use digital tools but also rethinking their pedagogical practices to fully exploit these tools (Lameul & Loisy, 2014).

2. Digital textbooks: Definition and impact on language teaching and learning

Over the past few decades, school textbooks have undergone a significant transformation thanks to the introduction of information and communication technologies (ICT). As highlighted by Baron and Bruillard (2005), textbooks have evolved under the influence of ICT, transitioning from simple course materials to interactive tools incorporating multimedia resources. This evolution has transformed textbooks into more dynamic learning aids that cater to the needs of modern learners. This dematerialized medium, far from being just an electronic version of the paper textbook, offers a variety of features and interactive content that enhance the learning experience. To fully understand its impact and potential, it is essential to clearly define what is meant by a “digital textbook” and to explore the different types that exist.

The first electronic textbooks that appeared in the 1990s merely provided access to a static PDF version of a printed document. It took a little over ten years to see the emergence of an electronic textbook that aimed to break free from the limitations of the printed book in terms of presentation, visualization, and document use. The first fully digitized textbooks appeared in the early 2000s, and they helped reduce the load students carried in their backpacks (Boulet, 2011). These textbooks faithfully reproduced the printed versions, offering only simple formatting and presentation functions. The next generation of textbooks, however, began to exploit the potential of digitization, notably by adding supplementary resources such as texts, images, or audio documents, and advanced search features. According to Capul (2008, cited by Berenguer, 2015), “it is important to distinguish between the digitized textbook, which is the paper textbook transferred to another medium, and the digital textbook, which has contributions in three areas: interactivity, multimedia, and openness through hyperlinks across the Internet.” This distinction is essential because, as

Capul (2008, cited by Berenguer, 2015) also notes, “the classic textbook model is being altered by external factors: the multiplication of media, the Internet revolution, the development of new communication technologies in schools [...]”

The use of digital textbooks in foreign language teaching is based on learning theories that emphasize interaction and immersion. Vygotsky (1978), in his work, argues that learning is a social process that develops through interaction with the environment and cultural tools. The digital textbook, as a modern cultural tool, offers an interactive environment that can enhance language learning through multimedia resources and interactive features.

According to Mayer (2009), multimedia learning is based on the principle that learners understand content better when it is presented in multiple forms simultaneously, such as text, images, and sound. Digital textbooks harness this multimedia potential to foster better comprehension and retention of foreign languages.

Digital textbooks have revolutionized the way knowledge is transmitted and acquired in the school context. In France, for example, textbooks have evolved under the influence of ICT, transitioning from simple course materials to interactive tools incorporating multimedia resources (Baldner, Baron, Bruillard, 2003). They emphasize that these textbooks promote greater interactivity between the learner and the content, which is essential in language learning.

The history of school textbooks shows a constant evolution towards the inclusion of new technologies. Choppin (2010) observes that digital textbooks represent a natural extension of the evolution of traditional textbooks, integrating multimedia elements that enrich the learning experience. This transition allows for a more dynamic and engaging approach to foreign language learning. Digital textbooks offer unique opportunities for differentiated pedagogy, which is essential for maintaining student engagement and adapting to their various learning styles.

3. Integration of ICT in Albania: An overview of the educational context

Given global trends in education, the Ministry of Education, Sports, and Youth in Albania (MASR) has made the integration of ICT a priority in the Pre-University Education Development Strategy (2021-2026). This initiative has become even more crucial in light of the COVID-19 pandemic, which forced educational systems to swiftly adapt to online teaching. However, this transition has not been without challenges for teachers, who faced a lack of adequate training, insufficient ICT infrastructure, and unsuitable learning environments.

The ICT skills of teachers in Albania align with the principles of the UNESCO ICT Competency Framework for Teachers, although the initial training of many teachers, especially those trained before 2006-2007, did not include specific modules on the use of technologies in teaching. Recent initiatives, such as the “Smart Classes” (MASR, 2015) project and the “21st Century Schools” (British Council program), aim to improve digital infrastructure and teacher training, but challenges persist, particularly unequal access to technology, especially in rural areas.

The UNESCO analysis report (2015-2017) recommended joint actions to improve internet connectivity, invest in digital learning resources, and develop national guidelines on the use of ICT in education. In parallel, the national strategy for the sustainable development of high-speed digital infrastructure 2020-2025 aims to connect 100% of schools and universities to high-speed internet by 2025.

Despite these advances, challenges remain, particularly regarding unequal access to technology and teacher training. According to Kananaj et al. (2021), although Albania has made significant strides in the digitalization of education, considerable disparities persist between the public and private sectors. The private sector, notably the French Alliances in Albania, benefits from better digital infrastructure, enabling them to revolutionize language teaching through more effective use of ICT. This disparity underscores the need to strengthen investments in infrastructure and ongoing training in the public sector to ensure quality education for all.

4. Methodology

This study employs a mixed-methods approach, combining both quantitative and qualitative research techniques to explore the role and impact of digital textbooks within the Albanian educational context, with a particular focus on foreign language teaching, especially French. The research methodology is structured around the following elements:

- *Surveys*: A comprehensive online survey was distributed to language teachers. This survey aimed to collect quantitative data on teachers' experiences, perceptions, and challenges in integrating digital textbooks into their teaching practices. The survey was carefully designed to capture a wide range of variables, including teachers' digital competencies, the frequency and nature of digital textbook usage, and the perceived impact on student engagement and achievement.

- *Interviews*: To complement the survey data, in-depth interviews were conducted with a selected group of teachers who actively use digital technologies in their classrooms. These interviews provided qualitative insights into the practical challenges and benefits of using digital textbooks in language teaching, as well as broader implications for pedagogical practices.

- *Classroom observations*: Direct observations were conducted in private educational institutions where digital textbooks were being used. These observations focused on assessing the real-time impact of digital textbooks on student engagement and interaction, as well as the methods teachers used to integrate these tools into their lessons. The data collected from these observations were analyzed to identify patterns and correlations between the use of digital textbooks and students' performance in language skills.

The combined data from these methodologies were analyzed to assess the impact of digital textbooks on student engagement and performance in language learning.

5. Questionnaire results and analysis

➤ Objectives of the questionnaire

-To assess the current state of ICT usage in foreign language teaching/learning in the city of Elbasan

- To understand the perceptions and challenges of teachers and learners related to the use digital books as a pedagogical tool.

- To examine the changes in learner engagement and performance when using digital books compared to traditional materials.

- To evaluate the impact of digital books on the improvement of various language skills and student motivation.

➤ Target group: Foreign language teachers in the city of Elbasan, including 33 teachers from different educational institutions (elementary/secondary/high school/university).

➤ Type of survey: Digital version conducted through the Google Forms platform.

➤ Survey structure: The survey is divided into three main sections:

1. *Teacher profile*: Includes the educational level they teach, the type of institution (public/private), and the foreign language they teach.

2. *Use of ICT in the respective school*: Contains questions about the digital tools used, the environments of use, the frequency of use, and the challenges encountered.

3. *Impact of using digital books in foreign language teaching*: Addresses issues such as the title/type of method, the typology of student work, the frequency of use, the reasons and effectiveness of use, the main benefits, student performance, motivational elements, improved skills, and the challenges encountered.

Section 1: Teacher profile

This survey focuses on a sample of 33 foreign language teachers in the city of Elbasan. 21 (63.6%) of them teach in the public sector, while 12 (36.4%) work in the private. In the table below (Table 1), their distribution by language taught and the educational level at which they teach is presented (Figure 1). The largest number of respondents teach French. It is observed that the majority of the participants work in middle schools (56%/18 teachers) and high schools (44%/15 teachers), while a smaller percentage belong to other levels. It should also be noted that some teachers teach at two levels simultaneously (for example, primary and middle school, most often).

Language	Number of teachers
French	20
English	7
Italian	3
German	2
Other	1

Table 1. Language taught by teacher

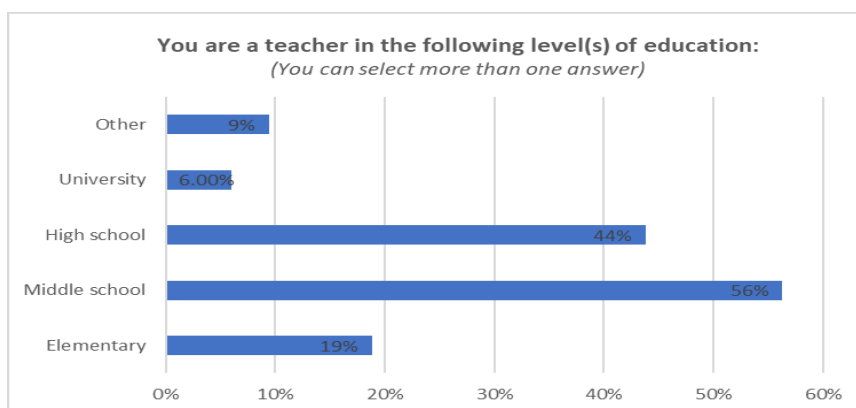


Figure 1. Level of education

Section 2: Use of ICT in the respective school

This second section includes questions regarding the digital infrastructure in the schools where each teacher works. The first question addresses the types of digital tools or devices accessible to teachers and their students. The results of this question in Figure 2.

As for the room where they use these tools, it is observed that 57.6% work with ICT in their own classroom where they teach every day and have access to digital equipment, while 42.4% use ICT only in a computer lab (which means they have access to it only occasionally).

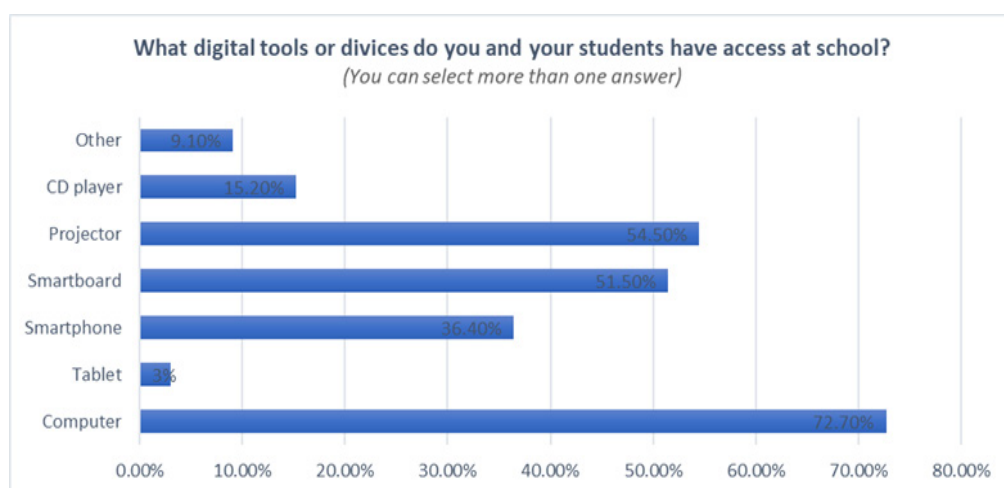


Figure 2. Digital tools or devices by school

In response to the question of whether they use a digital textbook in their class, the teachers answered: *yes*, 51.5% (17 teachers), while 48.5% (16 teachers) do not use it. The teachers who do not use the digital textbook do so for the following reasons shown in Figure 3.

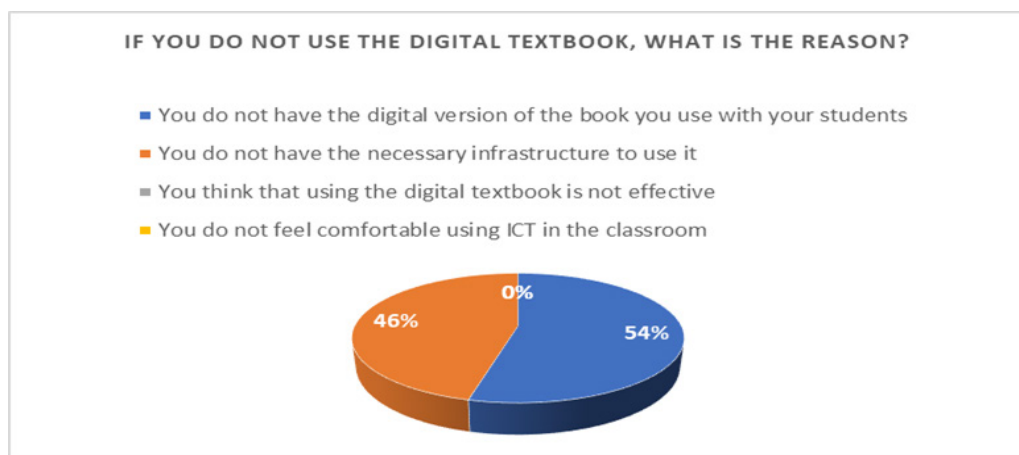


Figure 3. The reasons why teachers do not use the digital textbook

As for the 17 teachers who have access to the digital textbook in their class, the majority (88.2%) received it from their institution, while 11.8% found it on their own.

Section 3: Impact of using digital books in foreign language teaching

First, in this section, the 17 teachers who use the digital textbook listed the titles of the digital textbooks they use in their courses. You can find the table of responses attached according to the foreign languages (Table 2). It should be noted that the French teachers who responded to this questionnaire are at the forefront in terms of using digital textbooks, as they teach either at the French Alliance (private sector) or the French-Albanian bilingual high school (public sector). Both institutions are very well equipped with digital tools, thanks to the investments made by the French Embassy in Albania, particularly over the past five years.

As for teachers of other languages, it should be noted that all of them teach in private schools that have excellent digital infrastructure, where the administrators have also invested in purchasing digital textbooks for all the levels.

Language	Title of digital book	Education level	Number of teachers
French	Les Loustics 1/2/3	Elementary	8
	Adomania 1/2/3/4	Middle school	
	Alter ego+ 1/2/3/4	High school/ University	
English	Cambridge Primary English 1/2	Elementary	5
	Smiles 1/2/3/4	Elementary	
	Spark 1/2/3	Middle school	
	Ahead 1/2/3	Middle school	
	Empower 1/2/3/4	High school/ University	
Italian	Forte 1/2/3	Elementary	3
	Amici d'Italia 1/2/3	Middle school	
	Allegro 1/2	High school/ University	
Turc	TRT Çocuk kitaplık	Elementary	1

Table 2. Titles of digital textbooks by language, level and no. of teachers

Regarding the frequency and the reasons of digital textbook use, the teachers responded as follows (Figure 4 & 5):

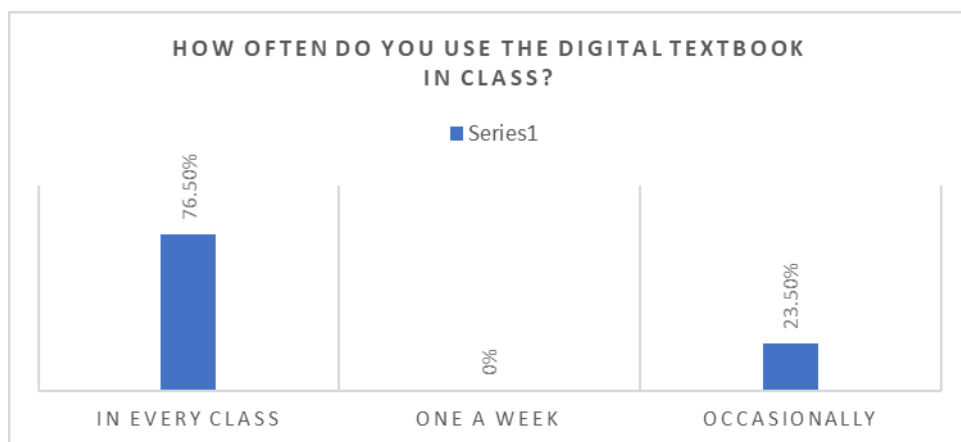


Figure 4. The frequency of digital textbook use

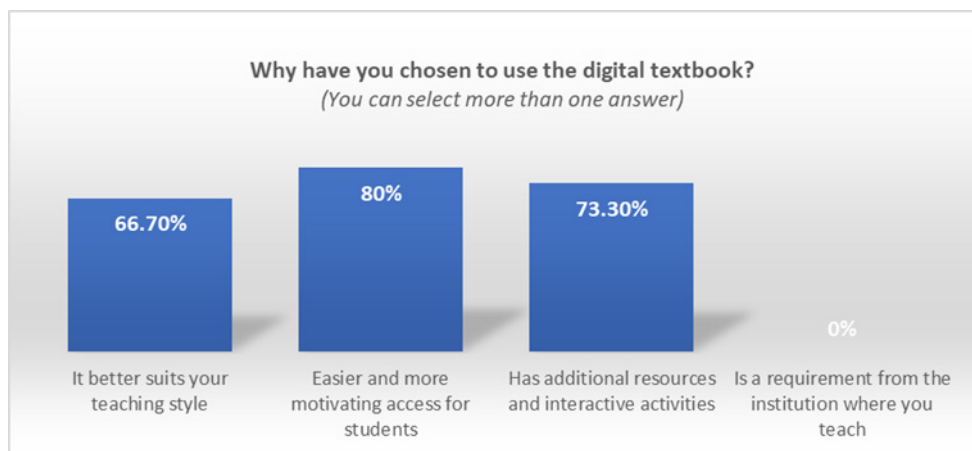


Figure 5. The reasons why teachers use the digital textbook

As shown in Figure 6., the majority of teachers (82.4% / 15 teachers) consider the use of digital textbooks to be very effective in the teaching and learning process. Two teachers think is moderately effective, and only one teacher think that both formats of books have the same effectiveness



Figure 6. The effectiveness of digital textbooks compared to traditional ones

In the Figure 7., it can be observed that the majority of teachers (11 out of 17) consider that the use of digital textbooks visibly improves student engagement and

performance.

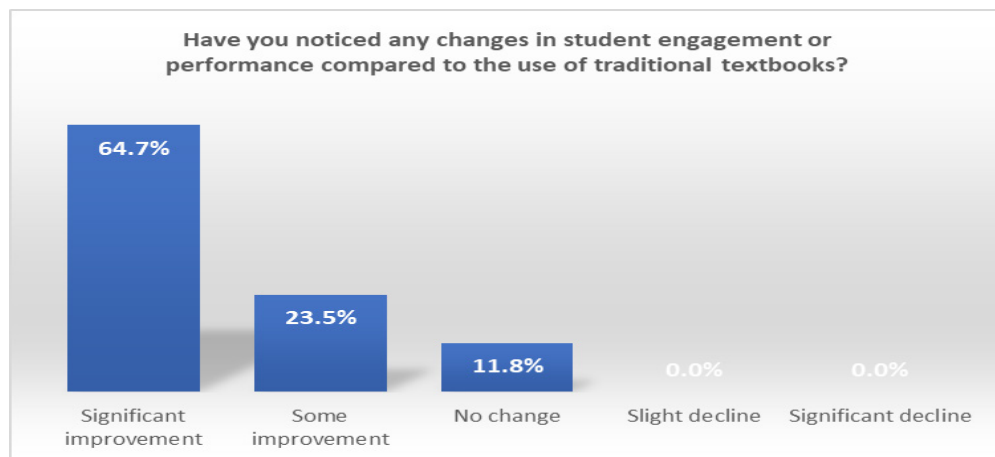


Figure 7. Changes in student engagement or performance compared to the use of traditional ones

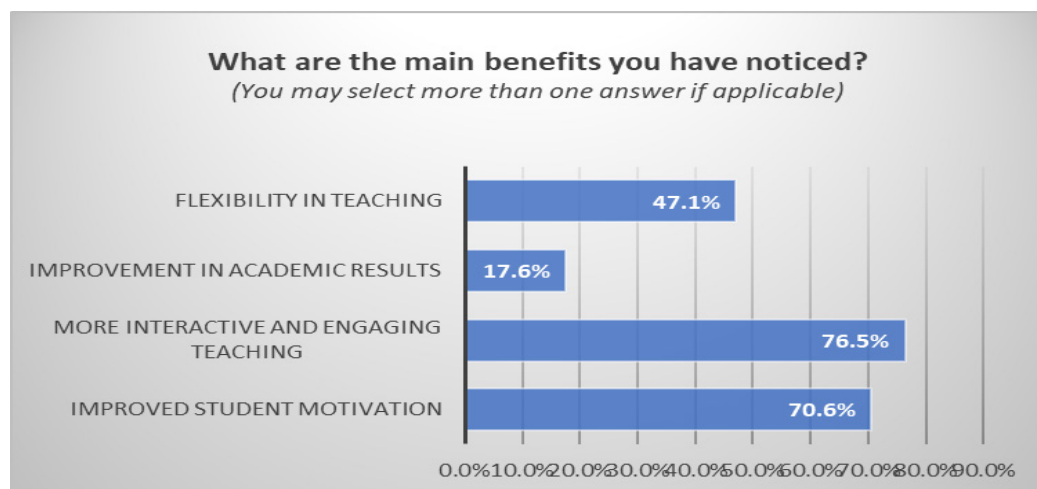


Figure 8. The benefits of using digital textbooks

The data in Figures 7, 8, 9, and 10 show that, according to the teachers, the majority of students view their experience with digital textbooks as very positive. Regarding the elements that most attract students' interest, a very large percentage is related to educational games and quizzes (94.1%), followed by videos (76.5%) and interactive texts with accompanying activities.

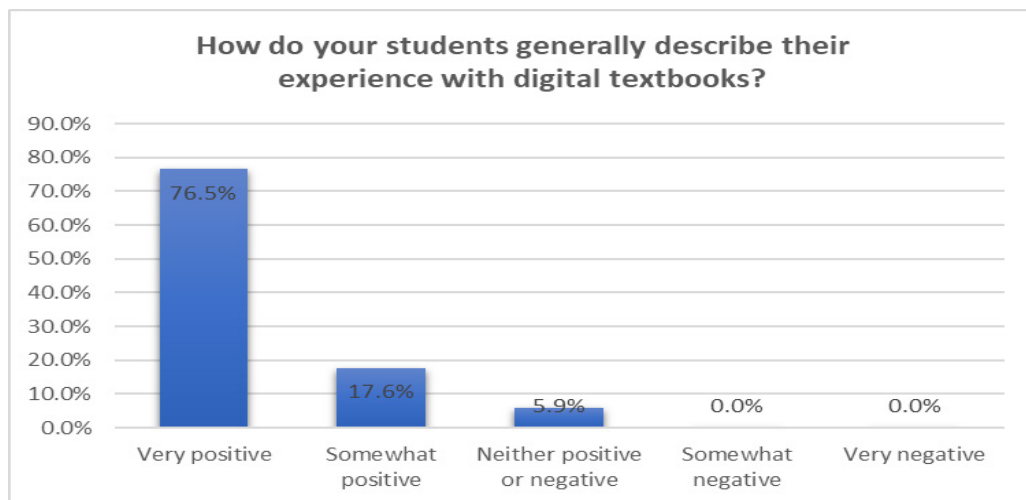


Figure 9. Students experience with digital textbooks

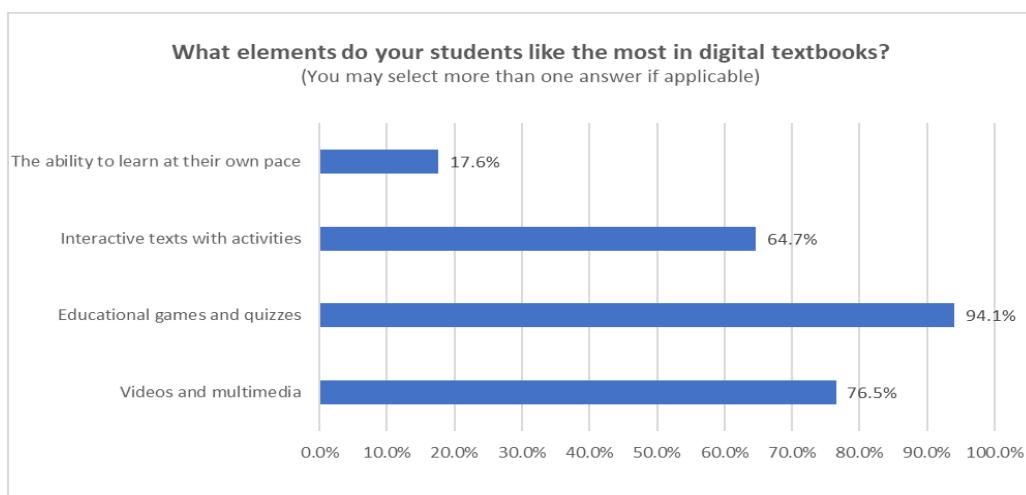


Figure 10. The most liked elements of digital textbooks according to students

As for the skills in which teachers believe their students have improved (Figure 11), opinions are divided, and the percentages are average, except for written skills, where teachers believe there is no significant improvement (11.8%). For grammar as well, there is a low percentage (23.3%).

Finally, these results indicate that teachers need to consider new strategies to improve students' written and grammatical skills.

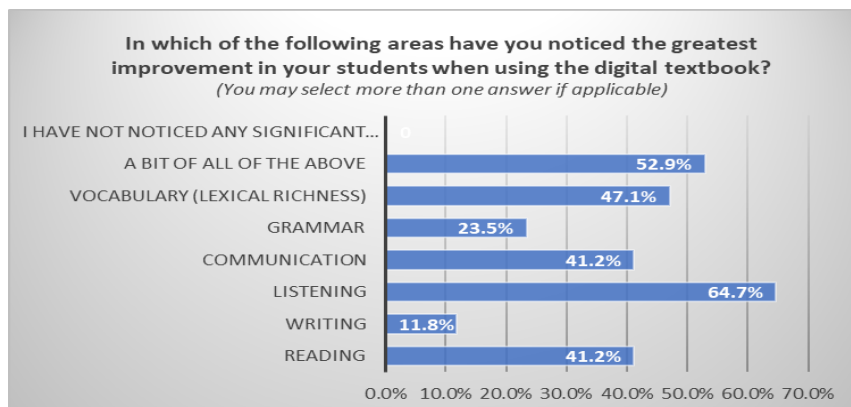


Figure 11. The greatest improvement of the students according to the digital textbook

Regarding the difficulties encountered by both teachers and learners, it is noted that they primarily involve technical issues (Figure 12 & 13).

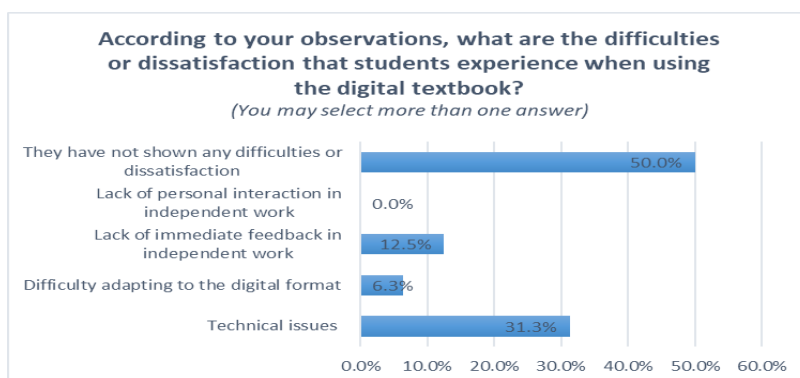


Figure 12. The difficulties or dissatisfactions of the students according to the digital textbooks

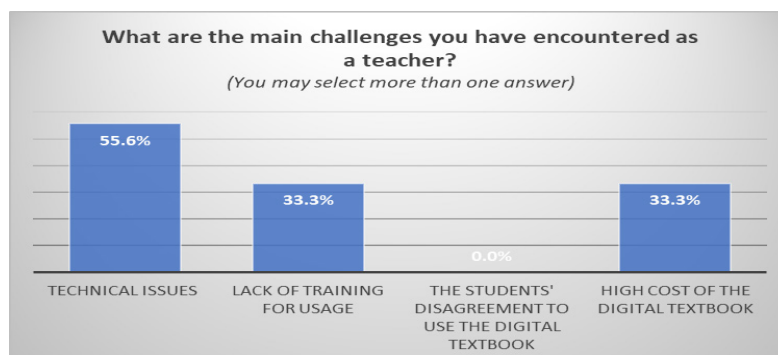


Figure 13. The main challenges of the teachers according to the digital textbooks

In addition to the questionnaire, classroom observations and interviews with teachers from schools that regularly use digital textbooks were conducted, and the data collected supports the results of the above-analyzed questionnaire. To conclude this section, we will list the most relevant opinions of teachers regarding the use of digital textbooks in language classes

Teachers' opinions on the use of digital books in foreign language classes

- The use of digital books in foreign language teaching in our country is currently a challenge, considering that a significant portion of schools do not have the means to utilize them.
- Very useful in teaching.
- I think the use of digital books helps both students and teachers and aims to improve the quality of teaching. Personally, the development of teaching with the help of digital books has allowed me to better understand the students and adapt various materials to each academic level, assist students of different academic levels in different ways, consistently provide additional materials for students who are more curious and faster than the rest of the class, and also my work as a teacher has become easier and more practical.
- Effective and engaging for students.
- The digital book is an essential element for the development of interactive lessons centered on the student.
- It stimulates work during the teaching process and at the same time, students are fully involved in the lesson.
- With the development of technology in our time, the integration of the teaching and learning process should go a step further with the involvement of students to be more interested and engaged in the learning process.
- Very effective in modern teaching.
- Improvement in the quality of teaching.
- I haven't tried this method yet, but I hope it will be a plus for students in mastering the foreign language.
- Its use should become a reality as soon as possible because there are many positive benefits.
- We don't have digital books because we don't have powerful computer equipment or strong internet. We have nothing.
- The digital book is a help for the teacher and a relief for the students.
- The digital book has become an important tool today in foreign language teaching for motivating and encouraging student engagement in the learning process.

6. Conclusions and recommendations

Our study revealed that the use of digital textbooks in foreign language teaching holds significant potential for improving the quality and effectiveness of education, as highlighted by many of the surveyed teachers. Teachers assert that digital textbooks

are “highly effective in modern teaching” and bring “an improvement in the quality of education.” These statements are further supported by the fact that digital textbooks offer a more interactive and engaging environment for students, fully involving them in the learning process.

In addition to their effectiveness, digital textbooks are emphasized as “a support for the teacher and a relief for students” making learning more adaptable and personalized to each student’s individual needs. This also assists with the differentiated instruction that teachers carry out based on students’ levels.

However, the challenges hindering the widespread use of digital textbooks in the Albanian context are evident, such as the lack of technological infrastructure in some schools. This includes the absence of adequate computer tools and a strong Internet connection, which are essential for fully leveraging the potential of digital textbooks. For this reason, it is crucial that educational institutions and policymakers address these obstacles by providing the necessary resources to all students and teachers.

Finally, it is recommended that schools encourage and support the use of digital textbooks as an integral part of the foreign language teaching curriculum. This will require not only investments in technology but also training for teachers to maximize the use of these digital resources. With these steps, a teaching culture that values innovation and inclusion can be fostered, providing students with the tools they need to succeed in language learning in the globalized era we live in today.

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