The International Review of Multidisciplinary Research
Volume 1, Issue 5, May 2026, pp. 698-712
https://doi.org/10.5281/zenodo.20237729

The Impact of Digitalization in Teaching Reading

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Article Details:

Received: 12 April 2026
Revised: 20 April 2026
Accepted: 29 April 2026
Published: 16 May 2026
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Recommended Citation:

Amora, F. D., Amoto, M. C., Bayron, J.Q., Peligro, J. R. B., Ampo, W. G. (2026). The Impact of Digitalization in Teaching Reading. The International Review of Multidisciplinary Research. 1 (5), 698-712. https://doi.org/10.5281/zenodo.20237729

Index Terms:

digitalization; literacy instruction; reading pedagogy; teacher competence; technology integration

Abstract. Digitalization has significantly transformed literacy instruction, reshaping how reading is taught and learned in contemporary classrooms. This study examined the impact of digitalization in teaching reading among teachers of Saint Joseph Academy of Candijay, Bohol, Inc., focusing on access to digital tools, teacher competence, perceived effects on students' reading skills, and challenges encountered. A convergent parallel mixed-methods research design was employed involving 31 teacher-respondents selected through purposive sampling. Quantitative and qualitative data were collected and analyzed separately and later integrated. The quantitative component utilized a descriptive-correlational approach with data analyzed using frequency, percentage, mean, standard deviation, and correlational analysis, while qualitative data were gathered through open-ended responses. Findings revealed that teachers demonstrate a high level of access to and use of digital tools and strong competence in integrating technology into reading instruction. Digitalization positively influenced students' reading comprehension, vocabulary development, and engagement, resulting in more interactive and learner-centered activities. However, challenges such as limited access to digital devices, unstable internet connectivity, student distractions, and insufficient training were identified. The study concludes that digitalization enhances reading instruction when supported by adequate infrastructure, continuous professional development, and effective classroom management, highlighting the need for balanced integration of digital and traditional approaches.

Introduction

Digitalization has become one of the most important changes in education today. It continues to reshape how teachers teach and how students learn inside the classroom. In the past, reading instruction mainly relied on printed books, chalkboard discussions, and teacher-centered explanations. However, with the rapid growth of technology, teaching reading is no longer limited to traditional materials. Teachers now use digital tools such as e-books, online reading platforms, educational apps, videos, and interactive presentations to make reading lessons more engaging and meaningful.

In reading instruction, digitalization plays an important role in improving students' learning experiences. Many teachers observe that students become more ` and active when lessons include multimedia elements such as videos, animations, and interactive quizzes. These tools help students understand texts more deeply, improve vocabulary, and develop reading comprehension skills. Research shows that multimedia and digital learning tools can significantly enhance reading comprehension and student engagement when properly integrated into instruction (Mayer, 2021; Zawacki-Richter et al., 2019).

Globally, education systems are increasingly shifting toward digital learning environments. A study by Carvalhais et al. (2025) found that digital reading tools improve students' comprehension and motivation by making texts more interactive and accessible. Similarly, OECD (2021) emphasized that digital transformation in education enhances learner engagement and supports personalized instruction. Furthermore, UNESCO (2023) highlighted that digital literacy and access to technology are now essential components of modern education systems worldwide.

In addition, teacher competence plays a critical role in the success of digital learning integration. Nguyen and Habók (2023) emphasized that teachers' digital literacy significantly influences how effectively technology is used in classroom instruction. Ampo et al (2025) revealed that students feel stress during independent learning because of lack of clear instructions, timely feedback, or regular teacher support; students felt overwhelmed and solely responsible for their learning.

When teachers are confident and skilled in using digital tools, they can design more interactive and student-centered reading activities. On the other hand, limited digital competence may hinder effective integration and reduce learning impact.

In the Philippines, digitalization in education has rapidly expanded, especially following the shift to blended and flexible learning models. According to the Department of Education (DepEd, 2022), the integration of ICT in teaching has become a key strategy to improve access to quality education. However, studies have also identified challenges such as inadequate infrastructure, limited access to devices, and unequal internet connectivity among schools (Tria, 2020). According to Ampo et al (2025) students struggled to use digital tools because they lacked resources, particularly in using story-based text to film. Despite these barriers, Filipino teachers continue to adapt by using creative and resourceful strategies in delivering reading instruction through digital means.

At the local level, particularly in schools in Bohol, teachers are gradually adopting digital strategies in teaching reading. Many educators recognize that digital tools can make reading lessons more interesting and easier for students to understand. Platforms such as YouTube, Canva, Quizlet, and digital storybooks are commonly used to support reading activities. However, not all teachers have equal access to technology, and some still experience technical difficulties and limited training opportunities. This highlights the ongoing gap between the potential of digitalization and actual classroom implementation.

Teachers also play a very important role in the success of digital reading instruction. Their ability to use technology effectively determines how well students benefit from digital tools. Studies show that teacher digital competence is strongly associated with improved student learning outcomes (Nguyen & Habók, 2023). Teachers who are skilled in integrating technology can better support students in reading comprehension, vocabulary development, and independent learning. In contrast, teachers with limited training may struggle to maximize the benefits of digital tools.

Despite the growing use of digital tools in education, there is still a need for more localized studies, especially in Philippine schools. Many existing studies focus on global or national contexts, while fewer research efforts examine specific school settings such as Saint Joseph Academy of Candijay, Bohol, Inc. This creates a research gap in understanding how digitalization truly affects reading instruction at the grassroots level. This study aims to fill that gap by examining teachers' experiences, competencies, perceived impacts, and challenges in using digital tools in teaching reading.

The purpose of this study is to provide a clearer understanding of how digitalization influences reading instruction in a real classroom setting. It specifically seeks to describe how teachers use digital tools, how competent they feel in using them, how they perceive their impact on students' reading development, and what challenges they encounter in the process. Through this, the study hopes to contribute useful insights that may help improve teaching practices and support educational planning.

The findings of this study are expected to benefit teachers, school administrators, and policymakers. For teachers, the study may provide ideas for improving classroom strategies using digital tools. For school leaders, it may serve as a basis for improving training programs and providing better technological support. For policymakers, the study may offer evidence for strengthening digital education programs and ensuring equal access to learning resources. Most importantly, the study contributes to the growing body of knowledge on how digitalization shapes reading instruction in the modern classroom.

Research Problem

This study aims to determine the impact of digitalization in teaching reading among teachers of St. Joseph Academy of Candijay, Bohol, Inc., in terms of digital tool usage, teacher competence, perceived effects on learners, and challenges encountered.

Specifically, it seeks to answer the following questions:

1. What is the profile of the respondents in terms of:
   1.1 Age
   1.2 Gender

1.3 Years in teaching
1.4 Grade level taught
1.5 Training in digital teaching

2. What is the level of digitalization in teaching reading in terms of:
   2.1 Access and use of digital tools;
   2.2 Teacher competence in digital reading instruction?
3. What is the perceived impact of digitalization on students' reading skills?
4. What challenges do teachers encounter in digital reading instruction?
5. What is the overall impact of digitalization in teaching reading?
6. What digital tools are commonly used in reading instruction?
7. What challenges do teachers encounter in the application of digital reading instruction?
8. What suggestions are given to improve the digital teaching of reading?

Methodology

Research Design

This study utilized a convergent parallel sequential mixed-methods design to systematically gather and analyze data related to the impact of digitalization in teaching reading. In this design, quantitative and qualitative data were collected and analyzed in separate phases, then integrated to provide a more comprehensive understanding of the phenomenon under study.

The quantitative component employed a descriptive-correlational approach to determine teachers' access to digital tools, level of competence, perceived impact on students' reading skills, and challenges encountered. It also examined the significant relationships among selected variables related to digitalization in reading instruction. Descriptive statistical tools such as frequency counts, percentages, means, and standard deviations, as well as correlational analysis, were used to analyze the quantitative data.

The qualitative component involved follow-up interviews or open-ended responses to further explore teachers' experiences, insights, and challenges in using digital tools for reading instruction. This phase provided deeper explanations and contextual understanding of the quantitative findings. After the separate analyses, the results from both quantitative and qualitative strands were compared, merged, and interpreted to identify convergences, differences, and complementary insights. This integration strengthened the validity of the findings and offered a richer explanation of the impact of digitalization in teaching reading.

Participants and Sampling Technique

The participants of this study were teachers from Saint Joseph Academy of Candijay, Bohol, Inc., who are actively engaged in teaching reading across grade levels. The total sample consisted of n = 31 teachers who were directly involved in reading instruction. A purposive sampling technique was employed to ensure that only participants with relevant experience in digital reading instruction were included in the study. Specifically, the inclusion criteria required participants to be full-time teachers currently teaching reading subjects, with at least one year of teaching experience and exposure to the use of digital tools such as e-books, applications, and multimedia platforms. Participation was voluntary, and only those who consented were included. On the other hand, teachers who were not teaching reading subjects or had no experience in using digital tools in instruction were excluded from the study. This non-probability sampling approach ensured that the data gathered were directly relevant, accurate, and aligned with the objectives of the research.

Research Locale

This study was conducted at St. Joseph Academy of Candijay, Bohol, Inc. school I.D. 404239, a private educational institution located in the Candijay District, in the eastern part of Bohol, Philippines, 6312. The school offers basic education programs and serves learners from different grade levels, making it an appropriate setting for examining teaching practices in reading across diverse educational stages.

The school integrates digital tools into instruction, particularly in reading, through the use of multimedia resources, online platforms, and digital learning materials.

The selection of this locale was based on its accessibility to the researchers and the presence of teachers who are actively engaged in teaching reading using digital tools. This setting provided relevant and reliable data needed to examine the

impact of digitalization in teaching reading, as it reflects actual classroom practices within a localized Philippine educational context.

Research Instrument

The study utilized a researcher-adapted questionnaire developed from validated instruments and related studies on digital literacy and technology integration in education. The instrument was designed to capture key variables such as access to digital tools, teacher competence, perceived impact on students' reading skills, and challenges encountered. The questionnaire consisted of three parts:

- Part I: Respondents' demographic and professional profile
- Part II: 25 Likert-scale items measuring the main variables of the study
- Part III: Open-ended questions to gather additional insights and support the quantitative findings

The Likert-scale items were rated from 1 (Strongly Disagree) to 4 (Strongly Agree). The instrument was guided by established frameworks such as the TPACK framework (Mishra & Koehler, 2006), ensuring alignment with technology integration principles. To ensure content validity, the questionnaire was reviewed by experts in education and research, who evaluated its clarity, relevance, and alignment with the study objectives.

Data Gathering Procedure

Data were collected over two weeks at Saint Joseph Academy of Candijay, Bohol, Inc., using a face-to-face approach to ensure accessibility and a high response rate. Before data collection, permission was secured from the school administration and from the School of Advanced Studies. The respondents were informed about the purpose of the study, the voluntary nature of their participation, and the confidentiality of their responses. Printed questionnaires were distributed to the 31 teacher-respondents during scheduled faculty interactions. Participants were given approximately 10–15 minutes to complete the questionnaire. The completed questionnaires were collected immediately or within the agreed timeframe. All responses were checked for completeness and consistency before proceeding to data analysis. No experimental procedures, interventions, or control groups were involved, as the study focused solely on describing teachers' perceptions and experiences.

Data Analysis Procedure

The data gathered in this study were analyzed using descriptive statistical methods. Responses from the Likert-scale items were organized using frequency counts and percentages, while the mean (M) was computed to determine the level of teachers' access to digital tools, competence, perceived impact on students' reading skills, and challenges encountered. The weighted mean was used to interpret the level of agreement of respondents for each indicator. Item means were further aggregated to obtain composite means for each dimension of the study. These values were interpreted using a 4-point Likert scale interpretation guide (Strongly Agree, Agree, Disagree, Strongly Disagree). Responses to the open-ended questions were summarized and grouped according to common themes to support and explain the quantitative findings. However, these were not subjected to in-depth qualitative analysis, as the study primarily followed a descriptive quantitative approach.

Ethical Considerations

Ethical standards were strictly observed throughout the study to ensure the protection of participants and the integrity of the research process. Before data collection, approval was obtained from the school administration, and all respondents were provided with an informed consent form explaining the purpose of the study, the voluntary nature of their participation, and their right to withdraw at any time without penalty. The respondents' profiles were kept confidential to protect their privacy, and no personal identifiers were disclosed. Responses were coded numerically to maintain anonymity. All data were securely stored in password-protected devices and were used solely for research purposes, not for personal, business, or other uses, with results presented in aggregate form. The study posed no risk or harm to participants, as it only involved the administration of survey questionnaires. Since the respondents were adult teachers, no parental consent was required. In addition, the findings of this research are presented to the respondents before the data are destroyed after their validation. Adhering to these ethical principles, the study ensured confidentiality, respect, and credibility in the conduct of the research.

Results and Discussion

This chapter presents the results of the study and provides a detailed discussion of the findings in relation to the research objectives. The data gathered from the respondents were systematically analyzed using descriptive statistical tools, including frequency counts, percentages, means, and standard deviations. These were used to describe and interpret the respondents' profile and their responses regarding the impact of digitalization in teaching reading. The results are presented in a clear and organized manner according to the specific research questions of the study, particularly focusing on teachers' access to and use of digital tools, level of competence in digital reading instruction, perceived impact on students' reading skills, and the challenges encountered in integrating digitalization into teaching reading. Furthermore, the discussion provides an interpretation of the findings in relation to existing literature and studies. It highlights patterns, similarities, and differences observed in the data, thereby offering a deeper understanding of how digitalization influences reading instruction in the classroom setting.

Part I. Respondent's Profile

Age Range	Frequency	Percentage (%)
24-29	22	70.97
30-34	3	9.68
35-39	1	3.23
40-44	2	6.45
45-49	1	3.23
50-54	2	6.45
Total	**31**	**100.0**

Table 1. Frequency and percentage distribution of respondents in terms of age range

Most respondents belong to the 24–29 age group, accounting for 70.97% of the total population. The remaining respondents are distributed across older age groups, each with relatively small percentages ranging from 3.23% to 9.68%, indicating a highly concentrated age distribution among younger participants.

Sex	Frequency	Percentage (%)
Male	4	12.90
Female	27	87.10
Total	**31**	**100.0**

Table 2. Frequency and percentage distribution of respondents in terms of sex

The data reveals that the majority of respondents are female teachers (87.10%), while only a small proportion are male (12.90%). This indicates a strongly female-dominated teaching population within the sample. This distribution reflects the common trend in the education sector where teaching, particularly in basic education, is predominantly composed of female educators. The low representation of male teachers suggests limited gender balance in the workforce, which may influence classroom dynamics, mentoring diversity, and role modeling within schools.

Years in Teaching	Frequency	Percentage (%)
One-Three	23	74.19
Four-Seven	3	9.68
Eight-Ten	2	6.45
Eleven and above	3	9.68
Total	**31**	**100.0**

Table 3. Frequency and percentage distribution of respondents in terms of years in teaching

Most of the respondents have 1–3 years of teaching experience (74.19%), indicating a largely early-career group. Only a small proportion belongs to the higher experience brackets, showing that the sample is heavily concentrated among newer teachers.

Grade Level Taught	Frequency	Percentage (%)
Pre-elementary	2	6.45
Elementary	7	22.58
JHS	5	16.13

SHS	2	6.45
Mixed	15	48.39
Total	**31**	**100.0**

Table 4. Frequency and percentage distribution of respondents in terms of grade level taught

The data shows that almost half of the respondents (48.39%) are teaching in mixed grade levels, indicating that many teachers are handling more than one level of learners. The next largest group is elementary teachers (22.58%), while both pre-elementary and SHS teachers (6.45% each) have the smallest representation. The mixed grade level category is particularly important in this study because it reflects teachers who are assigned across different levels, especially Junior High School (JHS) teachers who also handle Senior High School (SHS) classes. This arrangement is common in schools with limited staffing, where teachers are required to teach across grade bands to meet instructional needs. It suggests that some respondents are not limited to a single teaching level but instead experience cross-level teaching responsibilities, particularly transitioning from JHS subjects to SHS subjects. This may also indicate greater workload diversity and adaptability among these teachers.

Training	Frequency	Percentage (%)
Yes	18	58.06
NO	13	41.94
Total	**31**	**100.0**

Table 5. Frequency and percentage distribution of respondents in terms of training

The data shows that a majority of respondents 58.06% have received training, while 41.94% have not undergone any training. This indicates that more than half of the participants are exposed to professional development opportunities, which may contribute to improved teaching practices and instructional effectiveness. However, a substantial proportion of respondents still lack training, suggesting a need for further capacity-building programs. This gap implies that not all teachers have equal access to professional development, which may affect consistency in teaching quality and the implementation of updated teaching strategies.

Part II. Digitalization in Teaching Reading

Statement	Weighted Mean	Descriptive	Interpretation
I regularly use digital tools (e.g., tablets, apps, e-books) in teaching reading.	3.52	SA	Highly Practiced
I am confident in using digital platforms for reading instruction.	3.52	SA	Highly Practiced
My school provides sufficient digital resources for teaching reading.	3.26	SA	Highly Practiced
I integrate multimedia (videos, audio, animations) in reading lessons.	3.58	SA	Highly Practiced
I use online reading platforms or applications to support learners.	3.48	SA	Highly Practiced
Composite Mean	**3.47**	**SA**	**Highly Practiced**

Scale	Description	Interpretation
4	Strongly Agree	Highly Practiced
3	Agree	Moderately Practiced
2	Disagree	Less Practiced
1	Strongly Disagree	Not Practiced

Table 6. A. Access and Use of Digital Tools

The findings in Table 6 show that teachers generally have a high level of access to and use of digital tools in teaching reading, as reflected in the composite mean of 3.47, interpreted as Strongly Agree / Highly Practiced. This indicates that digitalization is already well-integrated into classroom reading instruction and is actively utilized by teachers in their teaching practices. Specifically, teachers reported that they regularly use digital tools such as tablets, applications, and e-books in teaching reading (WM = 3.52). This suggests that digital resources have become part of their routine instructional

practices rather than being occasional supplements. Likewise, teachers expressed confidence in using digital platforms for reading instruction (WM = 3.52), which implies that they are not only exposed to technology but are also comfortable and competent in applying it in actual teaching situations. In terms of institutional support, respondents also agreed that their schools provide sufficient digital resources for teaching reading (WM = 3.26). Although this obtained the lowest mean among the indicators, it still falls under the "Strongly Agree" category, suggesting that while resources are generally available, there may still be room for improvement in terms of quantity, quality, or accessibility. Moreover, teachers indicated that they actively integrate multimedia materials such as videos, audio, and animations in their reading lessons (WM = 3.58), which obtained the highest mean. This reflects a strong effort to make reading instruction more engaging and interactive for learners. Similarly, the use of online reading platforms and applications (WM = 3.48) further shows that teachers are adopting modern digital tools to support learners' reading development. Overall, the results suggest that teachers are not only familiar with digital tools but are actively and effectively incorporating them into reading instruction. This reflects a positive shift toward technology-enhanced teaching practices, where digitalization plays a meaningful role in improving engagement and instructional delivery in reading education.

Statement	Weighted Mean	Descriptive	Interpretation
I have adequate training in integrating digital tools in reading instruction.	3.06	A	Moderately Practiced
I can effectively design reading activities using digital tools.	3.45	SA	Highly Practiced
I can troubleshoot basic technical problems during lessons.	3.16	A	Moderately Practiced
I can guide learners in using digital tools for reading tasks.	3.42	SA	Highly Practiced
I continuously improve my digital teaching skills.	3.45	SA	Highly Practiced
Composite Mean	**3.31**	**SA**	**Highly Practiced**

Scale	Description	Interpretation
4	Strongly Agree	Highly Practiced
3	Agree	Moderately Practiced
2	Disagree	Less Practiced
1	Strongly Disagree	Not Practiced

Table 7. B. Teacher Competence in Digital Reading Instruction

Table 7 reveals that teachers demonstrate a generally high level of competence in digital reading instruction, as reflected in the composite mean of 3.31, interpreted as Strongly Agree / Highly Practiced. This suggests that, overall, teachers are capable of using digital tools effectively to support reading instruction, although certain areas still require further strengthening.

In particular, teachers expressed strong confidence in their ability to design reading activities using digital tools (WM = 3.45) and their commitment to continuously improving their digital teaching skills (WM = 3.45). These findings indicate a positive professional attitude toward growth and adaptation, showing that teachers are not only using technology but are also actively developing their competencies to keep up with digital demands in education.
Similarly, respondents agreed that they can guide learners in using digital tools for reading tasks (WM = 3.42), which reflects their role not just as content facilitators but also as mentors in helping students navigate digital learning environments. This highlights the teachers' ability to support learner engagement in technology-enhanced reading activities.

However, some areas show slightly lower ratings. Teachers indicated that they have only a moderate level of training in integrating digital tools in reading instruction (WM = 3.06), suggesting that formal professional development opportunities may still be limited or not fully sufficient. Likewise, their ability to troubleshoot basic technical problems during lessons (WM = 3.16) was also rated as moderately practiced, which may imply occasional challenges in handling technical issues independently during instruction.

Overall, the findings suggest that while teachers are generally competent and confident in using digital tools for reading instruction, their competence is largely shaped by self-learning and practical experience rather than structured training. This highlights the need for continuous professional development programs focused on enhancing technical troubleshooting skills and strengthening formal training in digital pedagogy.

Statement	Weighted Mean	Descriptive	Interpretation
Digital tools improve students' reading comprehension.	3.48	SA	Highly Practiced
Digitalization increases students' interest in reading.	3.42	SA	Highly Practiced
Students are more engaged when digital tools are used.			
Digital reading materials enhance vocabulary development.	3.58	SA	Highly Practiced
	3.42	SA	Highly Practiced
Digital tools help struggling readers improve.	3.39	SA	Highly Practiced
Composite Mean	**3.46**	**SA**	**Highly Practiced**

Scale	Description	Interpretation
4	Strongly Agree	Highly Practiced
3	Agree	Moderately Practiced
2	Disagree	Less Practiced
1	Strongly Disagree	Not Practiced

Table 8. C. Perceived Impact on Students' Reading Skills

Table 8 shows that teachers hold a strongly positive perception of the impact of digitalization on students' reading skills, as shown by the composite mean of 3.46, interpreted as Strongly Agree / Highly Practiced. This suggests that teachers generally believe that the use of digital tools contributes meaningfully to improving students' reading development and engagement.

In particular, teachers strongly agree that digital tools improve students' reading comprehension (WM = 3.48). This indicates that technology-supported reading activities are seen as effective in helping learners better understand and process reading materials. Likewise, the statement that students are more engaged when digital tools are used obtained one of the highest ratings (WM = 3.58), suggesting that digitalization makes reading lessons more interactive and captures learners' attention more effectively compared to traditional approaches.

Teachers also agreed that digital reading materials enhance vocabulary development (WM = 3.42). This implies that exposure to varied digital texts, multimedia content, and interactive reading platforms helps students encounter new words in meaningful contexts, thereby enriching their vocabulary. Similarly, they believe that digital tools help struggling readers improve (WM = 3.39), showing that technology is also viewed as a supportive intervention for learners who have difficulties in reading.

Although still rated positively, this slightly lower mean suggests that while digital tools are helpful, their effectiveness for struggling readers may depend on proper guidance, appropriate materials, and teacher intervention.

Overall, the results suggest that teachers view digitalization as a valuable support system in reading instruction, particularly in enhancing comprehension, engagement, vocabulary development, and learner support. This reflects a growing recognition that integrating technology in reading instruction can create more meaningful and learner-centered reading experiences.

Statement	Weighted Mean	Descriptive	Interpretation
Lack of devices limits effective teaching of reading.	3.55	SA	Highly Practiced
Internet connectivity affects digital reading activities.	3.48	SA	Highly Practiced
Students are easily distracted when using digital tools.	3.32	SA	Highly Practiced
I find it difficult to manage digital classrooms.	3.06	A	Moderately Practiced
Lack of training hinders effective digital teaching.	3.61	SA	Highly Practiced
Composite Mean	**3.41**	**SA**	**Highly Practiced**

Scale	Description	Interpretation
4	Strongly Agree	Highly Practiced
3	Agree	Moderately Practiced
2	Disagree	Less Practiced
1	Strongly Disagree	Not Practiced

Table 9. D. Challenges in Digital Reading Instruction

The findings show that teachers generally strongly agree that challenges are present in digital reading instruction, as reflected in the composite mean of 3.41, interpreted as Strongly Agree / Highly Practiced. This indicates that while digital tools are widely used in teaching reading, several barriers still affect their smooth and effective integration in the classroom. One of the most pressing concerns is the lack of adequate devices, which teachers identified as a major limitation in delivering effective reading instruction (WM = 3.55). This suggests that not all learners may have equal access to digital tools, which can create gaps in participation and learning experiences. Similarly, internet connectivity issues (WM = 3.48) were also strongly agreed upon, highlighting that unstable or limited internet access continues to disrupt digital reading activities and affects the consistency of instruction.

Teachers also observed that students can easily become distracted when using digital tools (WM = 3.32). While technology enhances engagement, it may also introduce distractions such as games, social media, or unrelated applications, which can interfere with focused reading tasks. In addition, although still within the "Agree" category, teachers reported some difficulty in managing digital classrooms (WM = 3.06), indicating that classroom control and monitoring of learners in a digital environment can be more challenging compared to traditional settings.

Notably, the strongest challenge identified was the lack of training in digital teaching (WM = 3.61). This suggests that despite the use of digital tools, many teachers still feel that they have not received sufficient formal training to fully maximize technology in reading instruction. This gap may affect their confidence and efficiency in managing digital learning environments.

Overall, the results imply that while digitalization is actively practiced in reading instruction, its effectiveness is still influenced by infrastructural limitations, learner behavior, classroom management difficulties, and insufficient training. These challenges highlight the need for stronger institutional support, improved digital infrastructure, and continuous professional development programs to enhance the effectiveness of digital reading instruction.

Statement	Weighted Mean	Descriptive	Interpretation
Digitalization improves the quality of reading instruction.	3.45	SA	Highly Practiced
Digital tools make teaching reading more efficient.	3.45	SA	Highly Practiced
Digitalization supports differentiated instruction in reading.	3.48	SA	Highly Practiced
Digital teaching aligns with modern educational needs.	3.52	SA	Highly Practiced
I prefer using digital tools over traditional methods in reading instruction.	3.42	SA	Highly Practiced
Composite Mean	**3.46**	**SA**	**Highly Practiced**

Scale	Description	Interpretation
4	Strongly Agree	Highly Practiced
3	Agree	Moderately Practiced
2	Disagree	Less Practiced
1	Strongly Disagree	Not Practiced

Table 10. E. Overall Impact of Digitalization

The results indicate that teachers have a strongly positive perception of the overall impact of digitalization in teaching reading, as reflected in the composite mean of 3.46, interpreted as Strongly Agree / Highly Practiced. This suggests that digital tools are not only widely used in reading instruction but are also viewed as highly beneficial in improving teaching practices and learning experiences. Teachers strongly agree that digitalization improves the quality of reading instruction (WM = 3.45) and makes teaching reading more efficient (WM = 3.45). This implies that digital tools help streamline lesson

delivery, make instructional materials more accessible, and support smoother classroom implementation. In other words, technology is seen as a practical aid that enhances how reading lessons are delivered.

In addition, respondents believe that digital tools support differentiated instruction in reading (WM = 3.48). This indicates that teachers recognize the value of technology in addressing the diverse learning needs of students, allowing them to provide varied materials and activities suited to different reading levels and abilities. Teachers also strongly agree that digital teaching aligns with modern educational needs (WM = 3.52), which obtained the highest mean. This reflects a clear awareness that education is evolving, and digitalization is now an essential part of contemporary teaching practices. It suggests that teachers see themselves as adapting to the demands of 21st-century education. Furthermore, while still positively rated, the statement that teachers prefer using digital tools over traditional methods in reading instruction (WM = 3.42) indicates a favorable but more balanced preference. This suggests that although teachers appreciate digital tools, traditional methods may still have value in certain instructional contexts. Overall, the findings show that teachers view digitalization as a meaningful and necessary advancement in reading instruction, improving efficiency, instructional quality, and adaptability to learner needs. However, the results also imply that digital tools are best understood not as replacements, but as complementary supports to traditional teaching approaches.

Part III: Open-Ended Responses

To further support the quantitative findings, an open-ended question was included to gather the teachers' personal insights regarding the digital tools they commonly use in teaching reading. The responses were analyzed using thematic analysis, where similar answers were grouped into meaningful categories or themes. This helped in identifying common patterns in teachers' actual classroom practices.

Question 1: What digital tools do you commonly use in teaching reading?

Themes	Description	Sample Responses
1. Online Learning Platforms and Applications	Teachers use interactive digital platforms to support reading activities, assessments, and content creation.	"Epic for Kids," "Quizlet," "Canva," "ChatGPT"
2. Basic Digital Devices and Productivity Tools	Common gadgets and software are used for lesson preparation and presentation.	"TV and laptop," "cellphone," "PowerPoint," "MS Word," "WPS"
3. Multimedia and Video Resources	Teachers integrate videos and audio-visual materials to make reading lessons more engaging.	"YouTube," "video tools," "visual storytelling"
4. Digital Reading Resources	Online storybooks and digital libraries are used to enhance reading exposure and comprehension.	"Online storybooks," "digital libraries," "reading apps"
5. Phonics and Read-Aloud Support Tools	Digital tools are used specifically for phonics instruction and guided reading activities.	"Phonics songs," "read-aloud stories"

Table 11. Thematic Analysis of Digital Tools Used in Teaching Reading

The responses show that teachers are using a wide variety of digital tools in teaching reading, which can be grouped into five major themes. Most notably, teachers rely on online platforms and applications such as Epic, Quizlet, Canva, and ChatGPT to make their lessons more interactive and engaging. These tools allow them to present reading materials in creative ways and assess students more efficiently.
At the same time, teachers continue to use basic digital devices and productivity tools like laptops, televisions, and PowerPoint presentations. This suggests that even simple technologies play an important role in supporting daily teaching practices.

Another key finding is the strong use of multimedia resources, particularly YouTube videos and other visual tools. Teachers use these to support read-aloud activities, phonics instruction, and storytelling, making lessons more enjoyable and easier for learners to understand.

In addition, the use of digital reading resources, such as online storybooks and digital libraries, shows that teachers are providing students with more access to reading materials beyond traditional printed texts. This helps promote reading habits and improve comprehension skills.

Overall, the findings suggest that teachers are combining different types of digital tools to create a more engaging, flexible, and learner-centered reading environment. This supports the earlier quantitative results, which showed that digitalization is highly practiced and has a positive impact on reading instruction.

Question 2: What challenges do you encounter in digital reading instruction?

Themes	Description	Sample Responses
1. Student Distraction and Lack of Focus	Learners tend to lose focus easily when using digital tools, affecting engagement in reading tasks.	"Distractions and diversion of focus," "less focus and interrupted."
2. Internet Connectivity and Technical Issues	Unstable internet and technical problems disrupt lesson flow and reduce instructional time.	"Lack of internet connection," "slow performance," "software issues"
3. Limited Resources and Accessibility	Insufficient devices and poor access to technology limit effective implementation.	"Limited internet access and devices," "electricity issues"
4. Lack of Training and Technical Skills	Teachers feel the need for more training in using digital tools effectively.	"Lack of training on how to use digital tools," "unfamiliarity with platforms"
5. Time-Consuming Preparation	Preparing digital materials requires significant time and effort from teachers.	"Preparing PPT in every lesson," "time-consuming for preparation."
6. Classroom Management and Monitoring Difficulties	Monitoring student progress and behavior in a digital environment is challenging.	"Difficulty monitoring reading progress," "visibility of the presentation"
7. Limited Parental Support	Lack of support from parents affects students' participation, especially in home-based learning.	"Lack of parental support at home"

Table 12. Thematic Analysis of Challenges in Digital Reading Instruction

The responses reveal that while digital tools are widely used in teaching reading, teachers continue to face several practical and instructional challenges in their implementation.
One of the most common concerns is student distraction and lack of focus. Teachers observed that learners are easily diverted when using digital devices, which can interrupt reading activities and reduce the effectiveness of instruction. This highlights the challenge of maintaining students' attention in a technology-rich environment.

Another major issue is related to internet connectivity and technical problems. Unstable internet access, slow system performance, and software issues were frequently mentioned as factors that disrupt the smooth flow of lessons and limit instructional time. These challenges are further compounded by limited resources, such as a lack of available devices and occasional electricity problems, which restrict both teachers and students from fully engaging in digital learning.

Teachers also expressed concerns about the lack of sufficient training and technical skills, indicating that not all educators feel fully prepared to maximize the use of digital tools. Alongside this, the time-consuming nature of preparing digital materials, such as PowerPoint presentations, adds to the workload of teachers and may affect lesson efficiency.

In terms of classroom management, respondents noted difficulties in monitoring students' reading progress and maintaining visibility during instruction, especially in digital settings. Additionally, limited parental support at home was identified as a challenge, particularly in ensuring that students stay engaged and complete their reading tasks outside the classroom.

Overall, these findings suggest that while digitalization offers many benefits in reading instruction, its effectiveness is influenced by challenges related to infrastructure, learner behavior, teacher preparedness, and external support systems. Addressing these concerns is essential to maximizing the potential of digital tools in improving reading outcomes.

Question 3: What suggestions can you give to improve the digital teaching of reading?

Themes	Description	Sample Responses
1. Use of Interactive Activities and Multimedia	Teachers suggested incorporating more engaging activities and multimedia	"Quizzes, games, and multimedia resources to engage students," "use interactive digital platforms," "gradually integrate more interactive activities."

Themes	Description	Sample Responses
	resources to maintain students' interest in reading.	
2. Strengthening Reading Strategies and Guided Learning	Respondents emphasized the importance of actively guiding learners during reading activities.	"Encourage students to highlight key ideas, take notes, and reflect," "provide guided reading support."
3. Teacher Training and Professional Development	Teachers recommended additional seminars, training, and continuous professional development related to digital teaching.	"Provide training and seminar for teachers," "continuation of teacher development."
4. Provision of Adequate Digital Resources	Teachers expressed the need for sufficient digital tools and resources for both teachers and students.	"Provide digital resources to use," "adequate digital tools for students and teachers."
5. Simplifying and Improving Digital Materials	Teachers suggested improving the quality and clarity of digital content to make it more suitable for learners.	"Lessen animations and improve texts," "simplify the terminologies."
6. Blended and Differentiated Instruction	Respondents recommended combining digital and traditional methods and adapting instruction according to learners' needs.	"Blend digital and traditional reading," "differentiated instruction."
7. Offline and Accessible Digital Tools	Teachers recommended the use of digital tools that can still function without internet access.	"Offline use of digital teaching tools"
8. Emphasis on Foundational Reading Skills	Teachers highlighted the need to strengthen basic reading skills, especially phonics, even in digital instruction.	"Emphasize phonics instruction," "help learners recognize letter sounds and practice decoding."

Table 13. Thematic Analysis of Suggestions to Improve Digital Teaching of Reading

The responses indicate that teachers have several practical suggestions for improving the digital teaching of reading. One of the most common recommendations is the increased use of interactive activities and multimedia resources. Teachers believe that quizzes, games, videos, and other engaging digital materials can make reading lessons more interesting and encourage students to participate actively.

Another important suggestion is the need to strengthen guided reading strategies. Teachers emphasized that students should not simply read digital materials independently; instead, they should be guided to identify key ideas, take notes, reflect on what they have read, and actively interact with the text. This suggests that effective digital reading instruction still requires strong teacher guidance.

Respondents also highlighted the importance of teacher training and continuous professional development. Many teachers feel that additional seminars and workshops are necessary to improve their ability to use digital tools effectively in reading instruction. Along with this, they emphasized the need for more available digital resources and devices for both teachers and students.

Teachers further suggested improving the design of digital materials by reducing unnecessary animations, simplifying the language used, and making texts easier for learners to understand. This shows that teachers value clarity and accessibility in digital content.

Moreover, many respondents recommended using a blended approach, combining digital tools with traditional reading methods. They believe that digital instruction is most effective when paired with printed materials, guided reading, and differentiated instruction suited to the needs of different learners.

Another notable suggestion is the use of digital tools that can work offline, especially for learners with limited internet access. Finally, teachers stressed that digital reading instruction should continue to focus on foundational reading skills, particularly phonics, decoding, and word recognition.

Overall, the responses suggest that improving digital reading instruction requires not only better technology but also stronger teacher preparation, more accessible resources, and teaching strategies that keep students actively involved in the reading process.

Conclusion and Recommendations

This study adds to the growing understanding of digitalization in education by showing what is really happening in classrooms at the local level. It goes beyond simply stating that digital tools are being used and instead shows that teachers are already actively integrating technology into reading instruction. However, the study also makes it clear that the success of digitalization is not just about having technology—it depends on having the right balance of access to resources, teacher competence, and proper support.

One important insight from this study is that teachers are not just users of digital tools; they are creative and adaptive educators. They combine different tools such as apps, videos, and presentations with traditional teaching methods to make reading lessons more engaging and meaningful for students. This shows that technology is no longer just an extra aid in teaching but has become an essential part of everyday instruction. At the same time, many teachers develop their skills through experience and self-learning, which highlights the need for more structured training and continuous professional development.

The study also shows that while digital tools help improve students' engagement, comprehension, and vocabulary, they do not completely replace traditional teaching methods. Instead, the most effective approach is a balanced or blended method, where digital tools support strategies like guided reading and phonics instruction. This means that teachers should not only focus on using technology, but also on how to use it effectively to support learning.

In terms of practice and policy, the findings point to the need to address challenges such as limited devices, unstable internet connections, and a lack of training. Without solving these issues, the full benefits of digitalization cannot be achieved. Schools and educational leaders should therefore invest in better infrastructure and provide teachers with the necessary training and support. Professional development programs should focus not only on basic technology skills but also on how to integrate digital tools into teaching and manage digital classrooms effectively.

The study also reminds us that successful digital teaching is not just about technology itself, but about how teachers, students, and the learning environment work together. Teachers need to guide students in using digital tools properly to avoid distractions and to ensure active participation in reading activities. The inclusion of teachers' personal insights in this study further strengthens its value, as it reflects real classroom experiences.
For future research, there is a need to explore digitalization in a wider context by involving more participants and using different research methods. Future studies may also look into students' experiences, the role of parents, and the long-term effects of digital reading instruction on learners' development.

Overall, this study shows that digitalization has great potential to improve the teaching of reading. However, its success depends on continuous support, equal access to resources, and ongoing teacher development. When these are provided, digital tools can become powerful tools in creating more engaging, effective, and inclusive reading instruction.

Acknowledgement

The authors would like to thank the colleagues and institutions who provided guidance, feedback, and support throughout the conduct of this research and the preparation of this manuscript. Any remaining errors or omissions are the sole responsibility of the authors.

Funding

This research received no external funding from any public, commercial, or not-for-profit funding agency, and no organization provided financial support for the conduct of the study, authorship, or publication of this article.

Competing Interests Statement

The authors declare that they have no known competing financial interests or personal relationships that could have appeared to influence the work reported in this article.

Data Availability Statement

Data sharing is not applicable to this article as no new data were created or analyzed in this study; all data used were obtained from previously published sources as cited in the reference list.

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Appendices

No appendices are attached to this study.