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The Impact of Employing E-Learning on the Level of Reading Comprehension Basic Stage Students from the Perspective of Their Teachers in Amman

Issa Alhasanat

Abstract

Background/purpose. The main objective of this research is to investigate the impact of employing e-learning on the level of reading comprehension among basic stage students from the perspective of their female teachers in Amman. It also sought to determine whether there were statistically significant differences in these perceptions attributable to academic qualification or years of experience.

Materials/methods. To achieve the study's objectives, the descriptive-analytical approach was adopted. The researcher developed an instrument consisting of 30 items to measure the impact of technological advancements on the level of reading comprehension among basic stage students from their teachers' perspectives. The instrument's validity and reliability were confirmed. The study sample consisted of 270 female teachers.

Results. The study concluded that the perceived impact of employing e-learning on students' reading comprehension was high. The results also indicated no statistically significant differences in perceptions based on academic qualification, while statistically significant differences were found based on years of experience, in favor of teachers with less than four years of experience.

Conclusion. The study highlights the impact of employing e-Learning on the level of reading Comprehension Among Basic Stage Students from the Perspective of Their Female Teachers in Amman. No differences were found based on academic qualifications, whereas differences were observed based on years of experience.

1. Introduction

Technological advancement has had a profound impact on all aspects of life. Developments in information and communication technologies have resulted in a major transformation, rendering the world a small global village with no spatial or temporal boundaries among its various communities. These changes have significantly affected the educational system, emphasizing the importance of integrating technology into the teaching and learning process. This shift has been considered a qualitative leap, whereby schools and universities now utilize modern technological tools such as interactive whiteboards and realistic simulation videos. These tools have transformed the traditional concept of education, reshaped instructional content and methods, and redefined the relationship between teachers and students. Technology plays a crucial role in development, enrichment, and adaptation to meet evolving needs over time to meet the evolving needs and interests of users (Murati & Ceka, 2017).

Technology benefits both students and teachers in the classroom. It allows teachers to adjust their teaching methods to align with the intended learning objectives. Moreover, administrators can analyze educational data to provide teachers with the competencies, support, tools, and resources they require, enabling them to focus on their profession and become more efficient and effective in their teaching practices (Lazar, 2015). Teachers can now fully engage students in modern educational environments through access to educational content and interactive opportunities using digital devices both inside and outside the classroom (Carroll, Lindsey, Chaparro & Winslow, 2021).

Technological innovations offer new possibilities for learning and instruction, which can be implemented using a range of teaching methods, strategies, and contexts through new applications in information and communication technologies. In recent years, there has been a significant surge in educational technological tools, particularly smartboards, mobile phones, and tablet computers (Abdul Basit, 2011).

In response, the Jordanian Ministry of Education has actively sought to incorporate such technologies to advance students' competencies in information and communication. This initiative has included strategic plans stemming from the National Education Strategy. Specifically, the Ministry has made significant strides in digitizing curricula and offering them electronically through platforms such as the EduWave system (Abdulraouf, 2014).

Teachers can utilize modern technological tools either individually or collaboratively within the classroom to create engaging and stimulating educational environments. These tools—such as interactive boards, mobile phones, and tablets—form an integrated system of devices, programs, and resources aimed at enhancing student engagement and improving academic performance (Abdulraouf, 2014).

Interactive whiteboards allow educators to save, store, retrieve, print, and electronically share their instructional content. These boards are compatible with most educational software applications, helping present content in visually attractive and interactive ways. They are ideal for any context that requires visual communication (Al-Ramah, 2006).

Mobile phones offer learners the flexibility to study anytime and anywhere and facilitate quick access to global information networks. Mobile learning is wireless and relatively low-cost, as most digital mobile devices are more affordable than desktop computers. Students who use tablet devices in their learning process tend to achieve higher academic results than those taught using traditional methods. Tablets make learning enjoyable, reduce student boredom, and provide a variety of educational benefits (Allan, 2019).

The integration of these technologies has affected all elements of the educational system at various levels. The teacher’s role has notably evolved, shifting from a traditional instructor to a

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facilitator and guide. Modern educational literature now refers to the teacher as a facilitator, responsible for creating learning environments tailored to students' levels, selecting appropriate materials, monitoring progress, and guiding learners toward achieving educational goals (Abdul Basit, 2011).

Reading comprehension is central to education, aiming to enhance students' awareness and intellectual understanding. A proficient reader possesses the functional skills necessary to comprehend written material at advanced levels, enabling them to analyze and interpret texts, understand the author's intent, and form objective judgments based on high comprehension (Al-Sayyid, 2004).

Reading comprehension expands an individual's educational experiences and enhances their intellectual development, supporting the educational goal of transforming students from passive recipients to active participants who analyze, interpret, critique, and connect ideas (Abdul Latif, 2004).

Reading comprehension results from the reader's interaction with text, drawing on prior knowledge to derive meaning from written symbols. It begins with recognizing symbols and understanding the relationships between words, followed by interpreting meaning and identifying the author's intent. Thus, comprehension is an interactive cognitive process between the reader and the writer (Ashour & Maqdadi, 2005).

It involves a set of essential mental functions that utilize cognitive abilities and sensory perceptions to acquire and construct meaning. These include attention, analysis, inference, synthesis, criticism, judgment, reception, organization, experience, and interpretation. Reading comprehension is a complex, mentally-driven process that depends heavily on cognitive perception (Al-Sayyid, 2004).

Sartawi and Zaytoun (2009) describe reading comprehension as an active cognitive process that integrates linguistic, cognitive, and perceptual factors aimed at understanding the message, idea, or concept the author seeks to convey.

Reading comprehension has hierarchical levels that are interconnected. Researchers have classified and named these levels. According to the American Academic Support Centre (2006), there are three levels of reading comprehension:

1. Literal Level: The reader's ability to recall specific details from the text and relate them to the main ideas.

2. Interpretive Level: The reader's ability to "read between the lines," determine the author's purpose, and connect new information with prior knowledge.

3. Applied Level: The reader's ability to analyze and synthesize information and apply it to new contexts or situations.

In alignment with the political and educational leadership's belief in the importance of improving learning environments in schools across Jordan, the Ministry of Education has launched initiatives to make classrooms more attractive and stimulating for students. These efforts aim to support students' abilities, uncover their talents, and improve the overall quality of educational outcomes.

To achieve this, the Ministry has provided schools with advanced technological devices and equipment, organized training courses for educators and administrators, and launched the "Jordan Education Initiative" to integrate technology into classrooms and make it accessible to millions of students (Al-Majali, 2011).

The widespread adoption of modern digital technology—including information communication systems, networking tools, digital imaging, and other innovations—has transformed how people learn and how instruction is delivered. These changes have had a significant influence on all educational fields.

1.1. Problem Statement

In the modern era, there is a growing need for new methods and technologies to enhance the educational process, as one of the primary goals of instruction is to improve its effectiveness. Quality teaching necessitates the integration and application of modern educational technologies.

Reading comprehension is a complex process involving a variety of cognitive and linguistic skills. A deficiency in any of the cognitive abilities essential to understanding can lead to underperformance in reading comprehension. Al-Hayajneh and Al-Tal (2018) found that teachers often complain about students’ low levels of comprehension. Abu Sarhan (2014) indicated that students' weaknesses in critical and creative comprehension stem from traditional teaching methods that rely heavily on rote learning and focus primarily on literal-level comprehension. Hasan (2016) recommended that Arabic language teachers be trained in using modern instructional strategies to develop reading comprehension skills across all educational stages.

Based on the researcher’s experience in training early-grade teachers and monitoring them in the field, it was observed that students' levels of comprehension, particularly after the shift to remote learning and the increasing reliance on digital technologies, necessitate further investigation. There is a need to study the impact of technological developments on reading comprehension due to their significant implications for the educational process.

Thus, the core problem of this study can be summarized by the following central question:

What is the impact of employing e-learning on the level of reading comprehension among basic stage students from the perspective of their female teachers in Amman?

1.2. Research Questions

1. What is the impact of employing e-learning on the level of reading comprehension among basic stage students from the perspective of their female teachers in Amman?

2. Are there statistically significant differences at the ($\alpha = 0.05$) level in this impact due to:

- Academic qualification?
- Years of experience?

1.3. Significance of the Study

The significance of this study lies in two key areas:

1. Theoretical Significance

The study provides educators and specialists in reading instruction with theoretical insights that may help improve learning environments and enhance students’ reading comprehension. It also supports teachers in designing lesson plans and classroom programs that effectively use modern technological tools to address comprehension challenges. Furthermore, the study presents a list of key challenges faced by teachers in integrating technology into reading instruction.

2. Practical Significance

1. The study may assist Arabic language teachers in planning and using technology in instruction, especially in designing intervention programs to produce more effective educational content that keeps pace with contemporary developments.

2. The results may also inform decision-makers and stakeholders of the importance of using technological learning resources to improve students’ reading comprehension levels.

1.4. Operational Definitions

- E-Learning:

E-learning is a fundamental approach to future education and one of the most significant outcomes of the digital age. It relies on modern communication tools such as computers, networks, multimedia, electronic libraries, and internet portals. It is an integrative process that involves the interaction of various elements to achieve the objectives of educational institutions, whether in the classroom or remotely (Harthi, 2020).

Operationally, the researcher defines e-learning as the actual use of modern technological tools, including electronic resources, by Arabic language teachers in the teaching process. This is measured using the instrument developed by the researcher.

- Reading Comprehension:

Reading comprehension is a mental ability that aids in recognizing and connecting information to prior knowledge to infer new meanings (Harthi, 2020).

Operationally, the researcher defines it as the extent to which students understand, internalize, effectively use, connect, reformulate, and generate synonyms for the information presented.

1.5. Study Boundaries and Limitations

- Spatial Boundaries:

The study was conducted in schools affiliated with the Directorate of Education for the University District in Amman.

- Temporal Boundaries:

The study was applied during the first semester of the 2024–2025 academic year.

- Human Boundaries:

The study was limited to female Arabic language teachers in the Directorate of Education for the University District in the Hashemite Kingdom of Jordan.

- Topical Boundaries:

The focus of the study was to explore the impact of employing e-learning on the level of reading comprehension among basic stage students from the perspective of their female teachers in Amman.

2. Literature Review

Technological advancements have increasingly reshaped reading instruction, with numerous studies affirming their potential to enhance comprehension and related literacy skills. Research consistently indicates that integrating digital tools, multimedia, and innovative pedagogical approaches can positively influence students' reading performance, though the extent of impact varies by context, technology type, and instructional design.

2.1. Technology-Enhanced Reading Instruction

Several studies have demonstrated that technology-supported methods can significantly improve reading comprehension and associated skills. For instance, Abdul Qader (2015) reported that adopting a cognitive–academic approach to language learning not only enhanced creative reading comprehension but also improved linguistic communication among preparatory students. Similarly, Al-Masri (2017) showed that an electronic program tailored for fourth-grade learners effectively developed both reading speed and comprehension, underscoring the value of structured technological interventions in Arabic language instruction.

In inclusive classroom contexts, Jozwik and Douglas (2017) found that integrating internet-based tools, mind mapping apps, and peer collaboration enhanced comprehension strategies among mixed-ability fourth graders, including English language learners with learning difficulties. These results highlight the adaptability of digital tools in differentiated learning environments.

2.2. Multimedia and Digital Storytelling

The use of multimedia and storytelling in reading instruction has also yielded promising outcomes. Allan (2019) demonstrated that digital storytelling significantly improved oral reading fluency and motivation in second graders, suggesting that narrative-based multimedia can engage learners both cognitively and affectively. Likewise, Ahmed (2020) found that interactive multimedia enhanced e-reading skills among sixth-grade students, advocating for its broader adoption across educational stages.

Further, Al-Zaben (2022) confirmed the positive impact of multimedia-supported instruction on reading comprehension among basic stage students in Jordan, with experimental groups outperforming their traditionally taught peers. Collectively, these findings suggest that multimedia not only supports comprehension but also fosters student engagement and motivation.

2.3. Teachers' Practices and Contextual Factors

While technology shows clear benefits, teacher practices and contextual variables remain influential. Al-Azami (2018) found that Kuwaiti middle school teachers' application of reading comprehension skills was moderate overall, with differences linked to qualifications and experience. This points to the need for targeted professional development to ensure effective technology integration.

2.4. Emerging and Advanced Technologies

Recent research has expanded to emerging tools such as artificial intelligence (AI). Al-Qawabah (2024) explored teachers' perceptions of AI in early primary education, identifying its potential to support technical and conceptual skill development but also revealing a need for teacher training and collaborative design. Similarly, Mamadou Diallo (2023) emphasized the role of assistive technologies—such as text-to-speech applications and electronic dictionaries—in promoting independent learning and reading engagement.

Post-pandemic studies have also addressed systemic challenges in reading achievement. Lydia et al. (2024), focusing on Peru, reported a national reading comprehension crisis exacerbated by socioeconomic gaps and limited teacher training. Nevertheless, the integration of technological tools over recent years has yielded notable improvements, highlighting the critical role of digital literacy for both educators and learners.

2.5. Research Gap

Across diverse contexts, these studies affirm the potential of technology to enhance reading comprehension and related skills. However, the literature reveals a gap in research exploring the impact of e-learning specifically on reading comprehension among basic stage students from the perspective of female teachers in Amman. Addressing this gap, the present study examines how female educators perceive and evaluate the influence of e-learning on students' reading comprehension, providing insights from a context and population not previously studied in depth.

3. Methodology

This section presents a description of the study population, sample, methodology, research instrument, procedures for verifying the validity and reliability of the instrument, and the statistical methods used to analyze the data and extract findings.

3.1. Research Design

To achieve the objectives of the study, the descriptive-analytical method was employed.

3.2. Research Participants

The population consisted of all female Arabic language teachers working in schools under the Directorate of Education for the University District in the Hashemite Kingdom of Jordan during the first semester of the 2024–2025 academic year, totaling 560 teachers.

3.3. Sample

A convenience sample of 270 female teachers was selected, representing 48% of the total population. The questionnaire was distributed electronically using the Google Drive platform.

The following table (Table 1) presents the demographic and professional characteristics of the study sample:

Table 1. Demographic and professional characteristics of the study sample

Variable	Category	Frequency	Percentage (%)
Academic Qualification	Bachelor's Degree	215	79.6%
	Postgraduate Studies	55	20.4%
	Total	270	100.0%
Years of Experience	Less than 4 years	24	12.9%
	4 to less than 10 years	84	31.2%
	10 years and above	162	55.9%
	Total	270	100.0%

3.4. Data Collection Instruments

The researcher developed a questionnaire to measure the impact of employing e-learning on the level of reading comprehension among basic stage students. The development of the instrument was based on a review of theoretical literature and previous studies, including those by Allan (2019), Ahmed (2020), and Al-Masri (2017).

The instrument consisted of two sections. Section one included demographic and professional information such as academic qualifications and years of experience. Section two contained 30 items designed to measure the perceived impact of e-learning on reading comprehension among basic stage students from the perspective of their female teachers.

Instrument Validity

The validity of the instrument was verified using two methods:

1. Content Validity (Expert Judgment):

The questionnaire was reviewed by 10 experts, including:

- University faculty members specialized in curriculum and teaching methods
- Educational supervisors
- Experienced Arabic language teachers

They evaluated the accuracy, linguistic clarity, and relevance of the items to the domain being assessed, as well as their appropriateness for measuring the intended construct. Based on their feedback, necessary adjustments were made, including editing, merging, or removing specific items. The agreement rate among experts was 85%, indicating strong content validity.

2. Construct Validity (Internal Consistency):

To confirm the internal consistency of the instrument, it was piloted on an exploratory sample of 40 female teachers from the study population but outside the main study sample. Pearson correlation coefficients were calculated between each item and the total score of the scale.

Table 2. Results of Pearson Correlation Coefficients between Each Item and the Total Score

number	"Item–Total Correlation"	number	"Item–Total Correlation"
1	0.473**	16	0.578**
2	0.629**	17	0.679**
3	0.661**	18	0.566**
4	0.612**	19	0.559**
5	0.699**	20	0.586**
6	0.631**	21	0.804**
7	0.715**	22	0.441*
8	0.582**	23	0.755**
9	0.709**	24	0.788**
10	0.612**	25	0.444*
11	0.633**	26	0.602**
12	0.602**	27	0.575**
13	0.492**	28	0.647**
14	0.382*	29	0.484**
15	0.697**	30	0.412*

*"** Statistically significant at the significance level ($\alpha \leq 0.01$)."*

Interpretation of Table 2

The data in Table 2 indicate that the item–total correlation coefficients ranged between 0.382 and 0.804, and all were statistically significant at the specified level of significance. This confirms a high level of internal consistency among the questionnaire items.

Instrument Reliability

The reliability of the instrument, in terms of internal consistency, was verified using Cronbach's Alpha coefficient. The instrument was applied to an exploratory sample of 40 female teachers drawn from the population but not included in the main study sample. The overall Cronbach's Alpha value was 0.936, which is considered high and indicates strong reliability of the study instrument.

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Weighted Mean

The participants' responses to the questionnaire items were measured using a five-point Likert scale, with the following point distribution:

- Strongly Agree = 5 points
- Agree = 4 points
- Neutral = 3 points
- Disagree = 2 points
- Strongly Disagree = 1 point

The total possible score ranges from 30 to 150, with a cutoff score of 90. To interpret the respondents' ratings of the total score and individual items, arithmetic means were used, based on the range equation:

Range = (Highest score – Lowest score) ÷ 3

= (5 – 1) ÷ 3 = 1.33

Table 3. Weighted Mean Classification for Interpreting the Total and Item Scores

Arithmetic Mean	Level
1.00 – 2.33	Low
2.34 – 3.67	Moderate
3.68 – 5.00	High

3.5. Data Analysis

The data were analyzed using the Statistical Package for the Social Sciences (SPSS). The following statistical techniques were applied:

- Pearson correlation coefficient to test internal validity
- Cronbach's Alpha to assess reliability
- Means and standard deviations to answer the first research question
- Three-Way ANOVA to answer the second research question

4. Results

4.1. Results for the First Research Question

What is the impact of employing e-learning on the level of reading comprehension among basic stage students from the perspective of their female teachers in Amman? To answer this question, arithmetic means, standard deviations, rankings, and levels were calculated for each item and for the total score.

Table 4. Means, Standard Deviations, Rankings, and Levels of the Impact of Employing E-Learning on Reading Comprehension from Teachers' Perspectives (In Descending Order by Mean)

number	Item	Arithmetic Mean	Standard Deviation	Rank	Level
2	Modern e-learning programs serve as engaging tools for students, enhancing reading comprehension.	4.45	0.581	1	High

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4	The use of modern educational technological tools provides the teacher with sufficient confidence to develop students' reading abilities.	4.41	0.680	2	High
12	Using tablets increases students' interaction with the reading text.	4.40	0.554	3	High
8	The use of the interactive whiteboard enhances interaction among the elements of the educational process	4.38	0.588	4	High
16	Using the interactive whiteboard provides a stimulating learning environment for students when teaching reading skills.	4.37	0.586	5	High
6	The Arabic language teacher needs guides and manuals on how to use technological tools to support students' reading instruction.	4.34	0.667	6	High
14	The availability of modern technological tools affects the teaching of reading comprehension.	4.34	0.684	6	High
11	Using a data show projector saves time and effort for both the teacher and the student in teaching reading.	4.27	0.782	7	High
9	The use of modern educational technologies enhances students' imagination and their ability to visualize the text.	4.25	0.750	8	High
3	The use of modern educational technological tools achieves the objectives of reading comprehension plans more effectively than traditional methods.	4.24	0.728	9	High
10	The application of modern educational technological tools in the learning environment positively impacts students' creativity in the literary and artistic expressions of the reading text.	4.21	0.764	10	High
15	The administrative and supervisory staff at the Directorate of Education support the use of modern educational technological tools in teaching reading.	4.20	0.673	10	High
19	Students accept the use of modern educational technological tools in the classroom for teaching reading skills.	4.18	0.765	11	High
1	Modern technological advancements in education have achieved a qualitative leap in students' reading comprehension.	4.14	0.746	12	High
17	Mobile phones help students with self-directed learning of reading.	4.13	0.837	13	High
13	The use of tablets enhances students' self-confidence during reading.	4.12	0.819	14	High
5	The use of mobile phones in education improves some of the students' reading abilities.	4.10	0.873	15	High
25	The use of the interactive whiteboard requires specialized training courses.	4.03	0.800	16	High

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29	“Activating the use of technological advancements in teaching students saves effort and time	4.02	0.787	17	High
7	Modern educational technological tools contribute to accommodating students’ interests.	3.99	0.950	18	High
18	Supportive curricula are available for the use of modern educational technological tools in teaching reading to students.	3.88	0.998	19	High
28	The integration of modern educational technology reflects positively on teachers’ performance in reading instruction.	3.87	0.887	20	High
22	Educational e-learning platforms contribute to the development of students’ reading abilities.	3.86	0.962	21	High
26	The use of modern technological tools in teaching increases the burden on the teacher.	3.84	0.851	22	High
20	Modern educational technologies help diversify instructional approaches to reading.	3.81	0.992	23	High
27	The activation of modern technological tools in education leads to greater improvements in students’ reading performance compared to traditional teaching methods.	3.80	0.837	23	High
21	Students demonstrate a preference for engaging with modern educational technology, particularly because of the interactive programs it provides during reading activities.	3.77	1.075	24	High
24	The integration of technological advancements in instruction is not fully aligned with the prescribed reading curriculum.	3.75	0.940	25	High
23	The overuse of technological tools in the classroom may result in decreased student attention and increased distraction during lessons.	3.71	0.984	26	High
30	School infrastructure is adequately prepared to facilitate the integration of technological advancements in teaching and learning	3.51	1.148	27	Moderate
Total Score		4.07	0.480	--	High

The results presented in Table 4 indicate that the overall mean score for the impact of employing e-learning on reading comprehension among basic stage students, from the perspective of their teachers in the University Directorate of Education in Amman, was 4.07, with a standard deviation of 0.480, representing a high level of agreement.

The highest-rated item was Item 2: "Modern e-learning programs are an attractive element that contributes to improving students’ reading comprehension," with a mean of 4.45 and a standard deviation of 0.581, rated at a high level.

This was followed by Item 4: "The use of modern educational technological tools gives the teacher sufficient confidence to develop students' reading abilities," which came in second with a mean of 4.41 and a standard deviation of 0.680—also rated high.

In third place came Item 12: "The use of tablets increases students’ interaction with the reading text," with a mean of 4.40 and a standard deviation of 0.554, also indicating a high level.

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The lowest-rated item was Item 30: "The school infrastructure is adequate to support the use of technological advancements in student education," with a mean of 3.51 and a standard deviation of 1.148—indicating a moderate level.

All other items were rated at a high level.

4.2. Results Related to the Second Research Question

"Are there statistically significant differences at the (α ≤ 0.05) level in the impact of employing e-learning on students' reading comprehension levels from their teachers' perspectives in Amman, attributable to (academic qualification, teaching experience)?" To answer this question, a Three-Way ANOVA was used. Tables 5 and 6 present the results:

Table 5. Means and standard deviations according to academic qualification and teaching experience.

Variable	Category	Frequency	Mean	Standard Deviation	Arithmetic Mean	Standard Error
Academic Qualification	Bachelor's Degree	215	4.08	0.505	0.505	0.066
	Postgraduate Studies	55	4.10	0.381	0.381	0.130
Years of Experience	Less than 4 years	24	4.38	0.474	0.474	0.157
	4 to less than 10 years	84	3.40	0.542	0.542	0.108
	10 years and above	162	4.06	0.426	0.426	0.070

The results of Table 5 indicate apparent differences in the arithmetic means of the study sample regarding the impact of e-learning on reading comprehension among basic stage students, as perceived by their teachers in Amman, attributed to academic qualifications and teaching experience. To determine whether these differences are statistically significant, a Three-Way Analysis of Variance (3-Way ANOVA) was applied. Table 6 presents the results:

Showing the statistical significance of the differences in the impact of employing e-learning on the reading comprehension level of basic stage students from the perspective of their teachers in Amman, attributed to academic qualification and teaching experience.

Table 6. Results of the Three-Way ANOVA

Source of Variation	Sum of Squares	Degrees of Freedom	Mean Square	F-value	Statistical Significance
Academic Qualification	0.074	1	0.074	0.341	0.561
Years of Experience	1.597	2	0.798	**3.657***	**0.030**
Error	19.214	88	0.218		
Total	1569.803	180			
Corrected Total	21.198	176			

Statistically significant at the significance level (α ≤ 0.05).

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The results of Table 6 are as follows:

1. There are no statistically significant differences in the impact of employing e-learning on the reading comprehension level of basic stage students, from the perspective of their teachers in Amman, attributed to academic qualification, based on the calculated F-value of 3.080 and its associated significance level of $\alpha = 0.561$, which is not statistically significant at the significance level ($\alpha \leq 0.05$).

2. There are statistically significant differences in the impact of employing e-learning on the reading comprehension level of basic stage students, from the perspective of their teachers in Amman, attributed to teaching experience, based on the calculated F-value of 3.657 and its associated significance level of $\alpha = 0.030$, which is statistically significant at the significance level ($\alpha \leq 0.05$).

To determine the direction of these differences related to years of experience, a Scheffe post hoc test was applied. Table 7 presents the results:

Table 7. Direction of differences in the impact of employing e-learning according to years of experience.

Levels of the variable	**Mean**	Less than 4 years	4 to less than 10 years	10 years and above
Less than 4 years	4.38	--	**0.38***	**0.32***
4 to less than 10 years	3.40		--	
10 years and above	4.06	**-0.38***	**-0.32***	--

The results of Table 7 indicate that the differences in the mean scores regarding the impact of employing e-learning on the reading comprehension level of basic stage students, from the perspective of their teachers in Amman, attributed to years of experience, favor those with less than 4 years of experience and those with 4 to less than 10 years, compared to those with 10 years or more.

5. Discussion

The findings of this study indicate that the integration of modern technological tools into Arabic language instruction can substantially enhance students' reading comprehension skills. This improvement appears to be linked to the capacity of these tools to make the learning process more interactive, visually stimulating, and cognitively engaging. By enabling students to visualize textual content, technology supports the activation of imagination and mental imagery, both of which are critical to constructing meaning from text. Furthermore, increased motivation and participation observed in this study suggest that technology serves not only as a delivery medium but also as a catalyst for sustained engagement in reading activities.

A noteworthy implication of these findings is the role of technology in fostering collaborative and self-directed learning. Digital platforms and multimedia applications encourage peer-to-peer interaction, enabling students to exchange interpretations, receive constructive feedback, and refine their reading strategies. This aligns with Vygotskian perspectives on social learning, where dialogue and cooperative tasks scaffold comprehension development. In practice, such collaboration facilitates a deeper understanding of the text by clarifying reading purposes, connecting new information to prior knowledge, and encouraging synthesis and critical reflection.

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The perspectives of participating teachers also highlight how technology can enhance classroom dynamics. Increased teacher–student interaction, improved student confidence in reading aloud, and greater opportunities for creative thinking were all identified as benefits. This suggests that technological integration may positively influence both the cognitive and affective domains of reading instruction, creating a learning environment that is more supportive of diverse learners' needs.

These outcomes are consistent with previous research. Allan (2019) demonstrated that digital storytelling can significantly improve oral reading skills, while Ahmed (2020) reported that interactive multimedia enhances electronic reading abilities. Similarly, Al-Masri (2017) found that electronic programs improved reading speed and comprehension among fourth-grade students. The convergence of findings across these studies and the present research reinforces the view that technology—when effectively designed and implemented—can be a powerful pedagogical tool in reading instruction.

However, it is important to acknowledge certain contextual considerations. The effectiveness of technological tools may depend on factors such as teachers' digital literacy, access to resources, and alignment with curricular goals. Without adequate training and support, there is a risk of underutilizing the potential of these tools. Furthermore, while this study focused on teachers' perspectives, future research could incorporate direct measures of students' reading comprehension over time to validate and extend these findings.

Overall, this study adds to a growing body of evidence that supports the integration of educational technology into Arabic reading instruction. Beyond its immediate impact on comprehension skills, technology holds promise for fostering learner autonomy, enhancing engagement, and promoting more inclusive reading practices in diverse classroom contexts.

6. Conclusion

There is consensus among the teachers, regardless of their academic qualifications, on the positive impact of modern technological educational tools in helping students acquire Arabic language skills. These tools are attractive to students, stimulate their enthusiasm and motivation for reading, and boost their self-confidence by presenting texts clearly.

The differences favoring teachers with less and moderate experience over those with longer experience can be explained by the fact that teachers with less than 4 years and between 4 and 10 years of experience possess knowledge of educational technology and have sufficient training that enables them to effectively use it and develop Arabic language lessons electronically.

Conclusions of the Study:

The impact of employing e-learning on the reading comprehension level of basic stage students, from the perspective of their teachers in Amman, was found to be high. Academic qualifications also had an effect on the use of e-learning and its reflection on reading comprehension levels. Meanwhile, statistically significant differences were found in the impact of employing e-learning on reading comprehension attributed to years of experience, with differences favoring teachers with less than 4 years and those with 4 to less than 10 years of experience over those with 10 years or more.

7. Suggestion

Based on the results of the study, the following recommendations are proposed:

- It is essential to provide electronic educational tools in schools due to their role in improving students' reading comprehension.

- Arabic language teachers should be trained to effectively employ electronic educational tools in teaching Arabic language skills to enhance electronic reading.
- Arabic language teachers should be encouraged to use educational technologies and develop Arabic lessons electronically, facilitating students' acquisition of language skills, especially reading.

Declarations

Author Contributions. Alhasanat: Conceptualization, design, data acquisition, data analysis, drafting Manuscript, Data analysis, Critical revision of the manuscript, writing, editing/reviewing.

Conflicts of Interest. The authors declare no conflict of interest.

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Ethical Approval. Ethical procedures for research considering the participants' voluntariness, Anonymity and informed consent were approved by the Research Ethics Committee, Faculty of Educational Sciences of Yarmouk University, Jordan.

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