Article

Assessing The Influence of Digital Reading Tools on The Literacy Skills of The Grade Three Learners

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Abstract: This study explored the influence of digital reading tools on the literacy skills of Grade Three learners in the Philippine educational context using a descriptive-correlational research design. The research documented the types of digital reading tools used, their frequency of use, and the instructional strategies accompanying their implementation. A correlational analysis was then conducted to examine the relationship between the learners' engagement with these digital tools and their literacy outcomes as measured by custom-designed literacy assessments. The results indicated that while the learners perceived digital reading tools as highly engaging and beneficial for their reading experience, there was no statistically significant relationship between the use of these tools and their actual literacy levels. The findings suggest that although digital reading tools enhance the reading process, their impact on literacy skills may be limited, pointing to the need for further investigation into other factors that contribute to literacy development in young learners.

Introduction

In recent years, there has been a global shift towards integrating digital technology into education, fundamentally transforming how teaching and learning occur. Digital tools have become integral to enhancing educational outcomes, particularly in literacy, by offering interactive, engaging, and personalized learning experiences (Kailani et al., 2021). Literacy, especially in the foundational years of education, is crucial as it lays the groundwork for future academic success and lifelong learning. Early literacy skills are not only essential for reading

and writing but also for developing critical thinking and the ability to engage with information critically and creatively (Dwipayana, 2021).

The growing incorporation of digital reading tools in classrooms reflects this shift, with schools increasingly adopting technology to support literacy development. These tools, ranging from e-books to interactive reading apps, provide students with diverse and flexible ways to engage with text, potentially improving their reading skills and comprehension (López-Escribano et al., 2021; Tan, 2022). Given the significant investment in these technologies, it is essential to assess their effectiveness in enhancing literacy, ensuring that they contribute meaningfully to students' learning experiences (Sowmya & Hoblidar, 2022).

Despite the widespread use of digital reading tools, there remains a specific problem that needs to be addressed: understanding how these tools influence the literacy skills of Grade Three learners. This age group is particularly critical as it represents a pivotal point in a child's educational journey, where foundational literacy skills are solidified (Churchill, 2020). Investigating how digital tools impact these learners is crucial to determining their role in supporting or hindering literacy development at this stage (Dwiyasa et al., 2022).

Current research on the impact of digital tools on young learners' literacy skills presents gaps, particularly regarding the long-term effects and the specific conditions under which these tools are most effective. While some studies highlight the benefits of digital reading tools, others raise concerns about their potential to distract or overwhelm young learners (Masyhura & Ramadan, 2021). Addressing these gaps is necessary to provide a clearer understanding of how to best utilize digital tools in literacy education (Bhat, 2023).

The primary objective of this study is to assess the impact of digital reading tools on the literacy skills of Grade Three learners. Additionally, the research aims to explore the factors influencing the effectiveness of these tools and provide recommendations for improving literacy outcomes. Understanding these dynamics, the study seeks to offer evidence-based insights that can guide educators and policymakers in integrating digital tools more effectively in the classroom. Moving forward, this research will focus on evaluating the use of digital reading tools in a real-world educational setting, analyzing their effects on student literacy, and identifying best practices for their implementation. The findings of this study are expected to contribute to the broader discourse on digital literacy and provide practical recommendations for enhancing educational practices in the digital age.

Methodology

The study employed a descriptive-correlational research design to examine the influence of digital reading tools on the literacy skills of Grade Three learners in the Philippines. The methodology was

structured in two phases. First, the descriptive phase involved documenting the types and usage patterns of digital reading tools in Grade Three classrooms, including the frequency of use, instructional contexts, and pedagogical strategies employed. This phase aimed to provide a comprehensive overview of how digital technologies were integrated into literacy instruction. In the second phase, correlational analysis was conducted to explore the relationship between students' engagement with these digital tools and their performance on custom-designed literacy assessments. These assessments were specifically developed by the researcher to reflect the literacy outcomes that the digital tools aimed to achieve, allowing for a more accurate evaluation of their impact within the unique educational context of the Philippine Grade Three curriculum.

Results and Discussion

Table 1. Age and Gender of the Learners

Age (in years)	Female		Male		Total	
	f	%	f	%	f	%
10	2	4.00	0	0.00	2	4.00
9	8	16.00	19	38.00	27	54.00
8	7	14.00	14	28.00	21	42.00
Total	17	34.00	33	66.00	50	100.00

The data presented in Table 1 provides an overview of the age and gender distribution of the Grade Three learners involved in the study. The total sample size consists of 50 students, with a higher proportion of males (66%) compared to females (34%). The majority of the learners are 9 years old, accounting for 54% of the total sample, with 16% of these being females and 38% being males. The next largest age group is 8-year-olds, making up 42% of the sample, with 14% being females and 28% being males. Only a small percentage of learners, specifically 4%, are 10 years old, and all of these are female. This distribution indicates a diverse age range within the Grade Three cohort, with a notable gender disparity favoring male students in this sample.

The data in Table 2 illustrates the learners' perceptions of the influence of digital reading tools on their literacy skills. All indicators received a "Very High" verbal description, with weighted means ranging from 4.30 to 4.86. The highest-rated indicator, with a weighted mean of 4.86, suggests that students find their reading sessions more interactive and engaging when using digital reading tools. Similarly, multimedia elements like images and videos in these tools are highly effective in capturing students' attention, as reflected by a weighted mean of 4.82. Students also reported spending more time reading with digital tools compared to traditional books (4.66) and expressed a strong preference for using these tools both in and outside the classroom (4.64).

Table 2. Level of Influence of the Digital Reading Tools on the Literacy Skills of the Learners

S/N	Indicators	WM	Verbal Description
1	Digital reading tools make my reading sessions more interactive and engaging.	4.86	Very High
2	The multimedia elements (e.g., images, videos) in digital reading tools capture my attention.	4.82	Very High
3	I find myself spending more time reading when using digital tools compared to traditional books.	4.66	Very High
4	I prefer using digital reading tools for reading activities both in and outside the classroom.	4.64	Very High
5	Digital reading tools help me better understand the stories and information I read.	4.76	Very High
6	Features like in-app dictionaries and annotations in digital reading tools aid my comprehension.	4.30	Very High
7	Interactive quizzes and summaries in digital reading tools help reinforce what I have read.	4.38	Very High
8	I feel more confident answering questions about my reading when I use digital tools.	4.46	Very High
9	I am more motivated to read daily because of the accessibility and ease of use of digital reading tools.	4.54	Very High
10	The rewards and achievements in digital reading tools encourage me to read more.	4.46	Very High
11	I feel a sense of accomplishment when completing readings or activities on digital platforms.	4.32	Very High
12	I am always eager to use digital reading tools for new reading assignments.	4.46	Very High
13	Immediate feedback provided by digital reading tools helps me understand my reading strengths.	4.44	Very High
14	I use the feedback from digital tools to improve my reading skills.	4.58	Very High
15	The feedback mechanism in digital reading tools is helpful for setting my reading goals.	4.56	Very High
Aggregate Weighted Mean		4.55	Very High

Moreover, digital tools significantly enhance comprehension (4.76), with features like in-app dictionaries and annotations being particularly helpful (4.30). Interactive quizzes and summaries within these tools also play a crucial role in reinforcing what students have read (4.38), contributing to their confidence in answering reading-related questions (4.46). The motivation to read daily is bolstered by the accessibility and ease of use of digital tools (4.54), and rewards and achievements further encourage reading (4.46). The learners also feel a sense of accomplishment (4.32) and eagerness (4.46) when using digital tools, especially due to the immediate feedback provided (4.44), which helps them recognize their reading strengths and areas for improvement (4.58). The feedback mechanisms are also valued for helping students set and achieve reading goals (4.56). Overall, the aggregate weighted mean of 4.55 underscores the strong positive influence that digital reading tools have on enhancing the literacy skills of the learners.

Table 3. Level of Literacy Skills of the Learners

Literacy Level	f	%
Fluent	25	50.00
Halter	19	38.00
Syllabic	1	2.00
Word for Word	5	10.00
Total	50	100.00

The data in Table 3 presents the distribution of literacy skill levels among the 50 learners in the study. Half of the learners (50%) are classified as "Fluent," indicating that they have achieved a high level of literacy proficiency, being able to read with ease and comprehension. A significant portion of the learners, 38%, are at the "Halter" level, suggesting that while they have some reading skills, they may experience difficulties with fluency or complex texts. A smaller percentage of learners, 10%, fall into the "Word for Word" category, indicating that these students read slowly, processing one word at a time, which could hinder their overall comprehension. Only 2% of the learners are at the "Syllabic" level, which suggests they are in the early stages of literacy development, focusing on reading by recognizing syllables rather than whole words. This distribution indicates a varied level of literacy skills within the group, with a majority showing proficiency but a notable percentage requiring additional support to improve their reading capabilities.

The data in Table 4 presents the results of the statistical test examining the relationship between the influence of digital reading tools and the literacy levels of the learners. The test yielded a chi-square value of 0.333 with 2 degrees of freedom and a p-value of 0.847. Since the p-value is significantly higher than the threshold of 0.05, the null hypothesis (Ho) is not rejected.

Table 4. Test of Relationship between the Influence of the Digital Reading Tools and Literacy Level of the Learners

Variables	χ^2-value	df	p - value	Decision	Remarks
Influence of the Digital Reading Tools and Literacy Level	0.333	2	0.847	Do not reject Ho	Not Significant

*significant at p<0.05

This indicates that there is no statistically significant relationship between the influence of digital reading tools and the literacy levels of the learners. In other words, while digital reading tools are perceived positively by the learners, their use does not appear to have a significant impact on improving the literacy levels as measured in this study. This

suggests that other factors may be contributing to the literacy outcomes observed, and the effectiveness of digital reading tools in enhancing literacy skills may require further investigation or be dependent on additional variables not accounted for in this analysis.

Conclusion

The analysis provides a comprehensive understanding of the learners' demographics, literacy skills, the perceived influence of digital reading tools, and the relationship between these tools and literacy outcomes. The data shows a diverse age group with a majority of 9-year-olds, and a gender distribution skewed towards males. While 50% of learners are fluent readers, a significant portion (48%) falls into the "Halter" and "Word for Word" categories, indicating varying levels of reading proficiency within the group. Despite the very high perceived influence of digital reading tools on engagement, comprehension, and motivation to read, as evidenced by high weighted means across all indicators, the statistical analysis reveals no significant relationship between the use of these tools and the learners' literacy levels. This suggests that while digital tools are well-received and enhance the reading experience, they do not necessarily translate into measurable improvements in literacy skills within this sample. Further research may be needed to explore other factors influencing literacy development and to determine under what conditions digital tools might be more effective in enhancing literacy outcomes.

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