

Article

Extent of Parental Involvement in the Reading Comprehension Performance of Learners Using Digital Games

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Abstract: This study investigates the relationship between various dimensions of parental involvement in reading and learners' performance in reading using digital games. Through the analysis of survey data from a sample of parents and learners, several key findings emerge. While certain aspects of parental involvement, including parenting practices, communication with the school, engagement in learning activities at home, and participation in decision-making processes, are found to significantly impact learners' performance in reading with digital games, volunteering does not exhibit a significant influence. These results underscore the critical role of specific forms of parental involvement in enhancing reading outcomes in digital learning environments. The study highlights the importance of targeted efforts to strengthen parental engagement strategies, particularly in communication and collaboration with schools, to effectively support students' literacy development in the context of digital educational tools.

Keywords: Parental involvement, reading, digital games, learners' performance

Introduction

Parental involvement in education is a pivotal factor that significantly contributes to the overall development and academic success of learners (Otani, 2020). Numerous studies have demonstrated that when parents actively engage in their children's education, it results in improved academic performance, better school attendance, and an increased likelihood of continuing education beyond compulsory levels (Khusanov et al., 2022). Parental engagement encompasses a broad spectrum of activities, including helping with



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homework, attending parent-teacher meetings, and fostering a home environment that values learning (Diaz, 2023). This foundational involvement lays the groundwork for cultivating learners' curiosity, motivation, and persistence towards academic challenges, thereby playing a crucial role in shaping their educational journey and future prospects (Fatima & Khan, 2023).

According to Tan et al. (2020) the relationship between parental involvement and reading comprehension of learners is particularly noteworthy. Reading comprehension is a critical skill that underpins academic achievement across various subjects (Almulla & Alamri, 2021). Parents play an essential role in developing these skills from an early age by reading with their children, discussing content, and encouraging them to explore a wide range of reading materials (Preece & Levy, 2020). Such activities not only enhance vocabulary and understanding but also instill a love for reading that can last a lifetime (Asif & Yang, 2021). Furthermore, when parents are actively involved in monitoring and supporting their child's reading development, it can lead to significant improvements in comprehension skills (Rand & Morrow, 2021). This support helps identify and address any difficulties early on, ensuring that learners are well-equipped to tackle more complex texts as they progress through their education (Goudeau et al., 2021).

Parental involvement extends to the realm of digital learning environments, which have become increasingly prevalent (Haleem et al., 2022). The use of digital games for educational purposes offers a unique opportunity for parents to engage with their children's learning in a dynamic and interactive way (Ganesh et al., 2022). Participating in or overseeing their child's use of educational games, parents can help reinforce learning objectives, provide immediate feedback, and tailor the learning experience to their child's individual needs (Kartel et al., 2022). This active involvement in learning through digital games can significantly enhance learners' engagement, motivation, and ultimately, their performance in various academic areas, including reading comprehension (Yu et al., 2021).

Digital games have been recognized for their potential to positively impact learners' performance (Acquah & Katz, 2020). These interactive platforms provide an engaging and motivating environment that can make learning more enjoyable and accessible (Cheung et al., 2021). The use of digital games in education supports the development of critical thinking, problem-solving skills, and digital literacy (Chen & Chuang, 2021). Moreover, educational games often incorporate adaptive learning technologies that adjust the difficulty level based on the learner's performance, ensuring that each child is challenged appropriately (Yildirim & Surer, 2021). This personalized learning experience can lead to significant improvements in academic performance, particularly in subjects like reading and mathematics.

However, despite the potential benefits of digital games in education, there are notable research gaps, particularly concerning the Most Essential Learning Competencies (MELCs) of the Department of Education (DepEd) schools. The MELCs outline the crucial knowledge, skills, and competencies that learners are expected to acquire at each grade level. There is a need for research to explore how digital games can be effectively integrated with the MELCs to enhance learning outcomes. Additionally, studies should investigate the role of parental involvement in this process and how it influences the effectiveness of digital games in meeting these essential competencies.

The direction of future research should therefore focus on examining the integration of digital games with the MELCs, with a particular emphasis on the role of parental involvement. Investigating how digital games can be tailored to align with the MELCs and how parents can support their children's learning within this framework is crucial. Research should also explore the potential barriers to effective parental involvement in digital game-based learning and strategies to overcome these challenges. By addressing these research gaps, we can gain a deeper understanding of how to leverage digital games and parental involvement to enhance the educational experiences and outcomes of learners in DepEd schools.

Methodology

The study adopted a descriptive correlational research design to comprehensively examine the reading comprehension abilities of Grade Three students in three selected public elementary schools in Cebu, Philippines. These schools include Kang-atis Elementary School, Lapu-Lapu City Central Elementary School, and Babag I Elementary School. The primary aim was to ascertain the current state of reading comprehension among the students, the extent and nature of their parents' involvement in reading activities, and the utilization of digital games specifically designed to enhance reading comprehension skills. This research method allowed for the collection of quantitative data to identify patterns, relationships, and correlations between the different variables under study. Employing standardized assessment tools and surveys, the study measured the reading comprehension levels of the students, quantified the degree of parental involvement in their children's reading development, and evaluated the frequency and impact of using digital games on improving reading comprehension. The questionnaire on Parent Involvement consisted of 30 items that described various practices related to parent involvement. These practices were categorized into five aspects: Parenting, Communicating, Volunteering, Learning at Home, and Decision-Making. Parents were asked to rate their engagement in these practices on a scale ranging from Never (lowest) to Always (highest). The second instrument measured the comprehension level of the grade three

learner – respondents using the Free Reading Comprehension Games Online for Kids from The Learning Apps. It has ten (10) stories with four questions each.

Results and Discussion

Table 1. Responses on Parenting

Indicators	Mean	StDev	Interpretation
Parenting			
1. I receive information on what I can do at home to help my child improve or advance his or her reading comprehension	3.53	0.68	Always
2. I receive information on the benefits of playing digital games towards reading comprehension.	1.50	0.51	Never
3. I receive information on child development in his/her reading comprehension improvement.	3.13	1.28	Often
4. I attend workshops on parenting and child development in reading	1.80	0.66	Rarely
5. I attend parent training programs on family literacy, financial literacy or other programs that concern planning for my children's reading development.	2.60	0.62	Often
6. I welcome and encourage my child's teacher to do home visitation to check his/her reading comprehension development.	3.83	0.38	Always
Aggregate Mean	2.73	0.69	Often

The results from Table 1 indicate a mixed pattern in parental engagement with activities related to their children's reading comprehension development. While there is a strong inclination towards receiving information at home to aid their child's reading comprehension (Mean = 3.53, StDev = 0.68), parents seem less engaged with the benefits of digital games for reading comprehension (Mean = 1.50, StDev = 0.51), indicating a gap in understanding or awareness in this area. However, parents are moderately involved in receiving information about child development in reading comprehension (Mean = 3.13, StDev = 1.28), although this suggests some room for improvement. There is a notable lack of attendance in workshops on parenting and child development in reading (Mean = 1.80, StDev = 0.66), indicating a potential area for intervention or outreach by educational institutions or community organizations. On a positive note, parents are somewhat active in attending parent training programs on various literacy aspects (Mean = 2.60, StDev = 0.62). Particularly encouraging is the high level of encouragement for teacher home visitation to monitor reading comprehension development (Mean = 3.83, StDev = 0.38), demonstrating a strong partnership between parents and educators. Overall, the aggregate mean of 2.73

with a standard deviation of 0.69 suggests that parents are often engaged in activities related to their children's reading comprehension, but there are clear opportunities for further involvement and education in certain areas to enhance support for their child's literacy development.

Table 2. Responses on Communicating

Indicators	Mean	StDev	Interpretation
Communicating			
1. If I have questions, concerns or comments about my child reading ability, I inform my child's teacher or school through visiting him or her at school, communicating via Facebook messenger or text right away.	2.27	1.23	Rarely
2. When my child's school communicates with me through f2f conference or Facebook messenger, it is easy for me to read and understand.	2.93	0.74	Often
3. When the folder of the student works sent home, I review and give comments to my child's schoolwork.	2.07	0.91	Rarely
4. I pick up the works of my child and confer with the teacher on how to improve his reading performance.	2.40	0.77	Rarely
5. I receive and respond to useful notices, phone calls, and other communications from the school.	3.07	1.05	Often
6. I attended PTA meetings and conferences to be aware of different school policies, programs, reforms and activities.	2.30	0.60	Rarely
Aggregate Mean	2.51	0.88	Often

The findings presented in Table 2 shed light on parental communication practices within the context of their child's education. Notably, parents demonstrate a tendency to rarely initiate communication with their child's teacher or school regarding reading ability concerns (Mean = 2.27, StDev = 1.23), indicating a potential barrier in proactive engagement. However, when communication is initiated by the school, whether through face-to-face conferences or digital platforms like Facebook messenger, parents generally find it easy to comprehend (Mean = 2.93, StDev = 0.74), suggesting receptiveness to communication once initiated by the educational institution. Despite this, parents report rarely reviewing and providing feedback on their child's schoolwork when it's sent home (Mean = 2.07, StDev = 0.91), indicating a possible disconnect between home and school involvement in academic progress monitoring. Additionally, parents infrequently engage in discussions with teachers to improve their child's reading performance (Mean = 2.40, StDev = 0.77), suggesting missed opportunities for collaborative efforts in addressing

academic challenges. However, parents are often responsive to school communications overall (Mean = 3.07, StDev = 1.05), indicating a willingness to engage with school-related information. Despite this, attendance at PTA meetings and conferences is reported as rare (Mean = 2.30, StDev = 0.60), potentially limiting parents' awareness of school policies, programs, and activities. The aggregate mean of 2.51 with a standard deviation of 0.88 suggests that while there is some regularity in parental communication with schools, there are notable areas for improvement in terms of proactive engagement and collaboration between parents and educators to support their child's academic development.

Table 3. Responses on Volunteering

Indicators	Mean	StDev	Interpretation
Volunteering			
1. I volunteer in the classroom to help the teachers or in the school's reading program and still adhering to the health and safety protocols against pandemic.	3.43	0.77	Always
2. I avail reading resources for families provided by the school such as reading charts, reading booklet and other reading materials.	2.17	0.91	Rarely
3. I provided information about my interests or availability for volunteering at school.	2.03	0.93	Rarely
4. When I volunteer at home, I need assistance or instructions from the teachers on how to assess my child's reading development.	2.33	0.61	Rarely
5. I am available to teach at home for my child's reading activities.	3.20	0.85	Often
6. I receive information about the role of the parent and the process on how to teach my child in reading.	2.93	0.94	Often
Aggregate Mean	2.68	0.84	Often

Table 3 presents insights into parental volunteering behaviors, particularly in the context of supporting their child's reading development. Parents demonstrate a strong commitment to classroom volunteering and participation in the school's reading program while adhering to health and safety protocols, with a mean score of 3.43 and a standard deviation of 0.77, indicating a consistent and active engagement in this aspect. However, there appears to be less involvement in availing reading resources provided by the school for families, as indicated by a mean score of 2.17 and a standard deviation of 0.91, suggesting a potential area for improvement in accessing available resources. Similarly, parents report infrequently providing information about their interests or availability for volunteering at school (mean = 2.03, stdev = 0.93), indicating a lack of proactive

engagement in this regard. When volunteering at home, parents express a need for assistance or instructions from teachers on how to assess their child's reading development (mean = 2.33, stdev = 0.61), highlighting a desire for clearer guidance and support from educators. Nonetheless, parents demonstrate a willingness to engage in teaching their child reading activities at home (mean = 3.20, stdev = 0.85), suggesting a proactive approach to supporting their child's literacy skills outside of school. Additionally, parents often receive information about their role in teaching their child to read (mean = 2.93, stdev = 0.94), indicating a degree of awareness and understanding of their responsibilities in this aspect. The aggregate mean of 2.68 with a standard deviation of 0.84 suggests that while parents often engage in volunteering activities related to their child's reading development, there are opportunities for increased involvement, particularly in accessing resources and proactive communication with schools.

Table 4. Responses on Learning at Home

Indicators	Mean	StDev	Interpretation
Learning at Home			
1. I have the full knowledge on what my child should learn in reading and be able to do at home.	2.30	0.75	Rarely
2. I inform the school what my goals are for my child's learning in reading or what interventions for my child's need.	3.50	0.63	Always
3. I know the reading policy of the school and I know confidently how to monitor and discuss reading activities at home.	3.23	0.77	Often
4. I monitor my child's reading activities and provide additional input to enrich his/her reading development in school.	2.17	0.53	Rarely
5. I set calendar of reading activities for my child at home or schedule advance reading	2.30	0.60	Rarely
6. I participated in trainings conducted by the school for my child's reading development despite the pandemic.	2.13	0.51	Rarely
Aggregate Mean	2.61	0.63	Often

Table 4 provides insights into parental practices regarding facilitating learning at home, particularly in relation to their child's reading development. The findings suggest that parents often communicate their goals and interventions for their child's reading education to the school (mean = 3.50, stdev = 0.63), indicating a proactive approach to collaborative planning with educators. Similarly, parents frequently demonstrate familiarity with the school's reading policy and feel confident in monitoring and discussing reading activities at home (mean = 3.23, stdev = 0.77), suggesting a strong understanding of their role in supporting their child's literacy. However, there are areas where

parental involvement is less frequent, such as having full knowledge of what their child should learn in reading at home (mean = 2.30, stdev = 0.75) and actively monitoring their child's reading activities to provide additional input for enrichment (mean = 2.17, stdev = 0.53), indicating potential gaps in awareness and engagement. Similarly, parents report rarely setting calendars of reading activities or scheduling advanced reading for their child at home (mean = 2.30, stdev = 0.60), suggesting opportunities for increased organization and structure in supporting their child's reading habits. Additionally, participation in trainings conducted by the school for their child's reading development during the pandemic is reported as rare (mean = 2.13, stdev = 0.51), highlighting a potential area for increased engagement and professional development. The aggregate mean of 2.61 with a standard deviation of 0.63 suggests that while parents often demonstrate proactive communication and understanding of their role in supporting their child's reading development at home, there are opportunities for increased knowledge, involvement, and structured activities to further enrich their child's literacy skills.

Table 5. Responses on Decision Making

Indicators	Mean	StDev	Interpretation
Decision Making			
1. I am actively participating in Parent- Teacher Conference and safety planning for my child's reading comprehension performance.	2.23	0.57	Rarely
2. I am actively working with the other parents for more assistance and collaboration in teaching reading at home.	1.87	0.73	Rarely
3. I am involved in school- decision making at my child's school.	1.73	0.52	Never
4. I help in planning family involvement activities.	1.90	0.71	Rarely
5. I receive information and participated in the election for homeroom and general PTA board.	1.83	0.75	Rarely
6. I am included in the group chat to keep updated whatever reading materials/resources send by the teacher for my child's reading development.	1.97	0.62	Rarely
Aggregate Mean	1.92	0.65	Rarely

Table 5 provides insights into parental involvement in decision-making processes related to their child's reading comprehension performance. The findings suggest that parents are rarely actively participating in parent-teacher conferences and safety planning for their child's reading comprehension (mean = 2.23, stdev = 0.57), indicating potential opportunities for increased engagement in collaborative discussions with educators about their child's academic progress and safety

measures. Similarly, parents report rare collaboration with other parents for assistance and collaboration in teaching reading at home (mean = 1.87, stdev = 0.73), suggesting potential areas for fostering a supportive community among parents to enhance literacy education. Furthermore, parental involvement in school decision-making processes is reported as never (mean = 1.73, stdev = 0.52), indicating a lack of representation or participation in shaping school policies and initiatives related to reading education. Additionally, parents rarely report contributing to planning family involvement activities (mean = 1.90, stdev = 0.71) and participating in elections for homeroom and general PTA boards (mean = 1.83, stdev = 0.75), highlighting opportunities for increased involvement in shaping the school community and fostering parental engagement. Moreover, parents are rarely included in group chats to stay updated on reading materials and resources sent by the teacher for their child's reading development (mean = 1.97, stdev = 0.62), indicating potential gaps in communication between teachers and parents regarding educational resources and strategies. The aggregate mean of 1.92 with a standard deviation of 0.65 suggests that parents are rarely involved in decision-making processes related to their child's reading education, indicating opportunities for increased collaboration, participation, and communication between parents and educators to support their child's literacy development effectively.

Table 6. Learners' Performance in Reading Using Digital Games

Raw Score	Verbal Description	Frequency	Percentage
31 - 40	Very Good	29	96.67
21 - 30	Good	1	3.33
11 - 20	Fair	0	0.00
Mean :	37.93		
StDev :	1.64		

Table 6 presents the performance of learners in reading using digital games, with a notable focus on the distribution of scores and corresponding verbal descriptions. The majority of learners scored within the "Very Good" range, with 96.67% falling between 31 and 40, indicating a high level of proficiency in reading comprehension when utilizing digital games as a learning tool. Only a small percentage, 3.33%, fell within the "Good" range, indicating a still positive but slightly lower level of performance. Notably, there were no scores falling within the "Fair" range. The mean score of 37.93 with a standard deviation of 1.64 further supports the overall high level of performance among learners, with minimal variation in scores.

Table 7. Relationship between the Nature of Parental Involvement in Reading and Learners' Performance in Reading using Digital Games

Variables	Chi-Square	df	Critical Value	Significance	Result
Learners' Performance in Reading Using Digital Games					
Parenting	0.207	1	3.841	Not Significant	Ho accepted
Communicating	2.414	2	5.991	Not Significant	Ho accepted
Volunteering	0.315	3	7.815	Not Significant	Ho accepted
Learning at Home	0.259	3	7.815	Not Significant	Ho accepted
Decision Making	0.517	2	5.991	Not Significant	Ho accepted
Overall Involvement	0.599	1	3.841	Not Significant	Ho accepted

Table 7 presents the analysis of the relationship between the nature of parental involvement in reading and learners' performance in reading using digital games. The Chi-Square tests conducted for each variable Parenting, Communicating, Volunteering, Learning at Home, Decision Making, and Overall Involvement—indicate that none of these variables have a significant relationship with learners' performance in reading using digital games. The critical values for significance were not exceeded for any of the variables, leading to the acceptance of the null hypothesis (Ho) for each test. This suggests that there is no significant association between the different aspects of parental involvement in reading and the performance of learners when digital games are utilized as a learning tool. These results imply that while parental involvement in various forms may contribute positively to the overall educational experience of students, when it comes specifically to reading performance using digital games, other factors might be at play. Further research may be needed to identify these factors and explore their impact on student learning outcomes.

Table 8. Difference on Nature of Parental Involvement in Reading and Learners' Performance in Reading Using Digital Games

Variables	df	F-value	P-value	Significance	Result
Learners' Performance in Reading Using Digital Games					
Parenting	29	8.36	0.000	Significant	Ho rejected
Communicating	29	8.91	0.000	Significant	Ho rejected
Volunteering	29	1.47	0.237	Not Significant	Ho accepted
Learning at Home	29	3.81	0.011	Significant	Ho rejected
Decision Making	29	3.66	0.013	Significant	Ho rejected
Overall Involvement	29	5.56	0.002	Significant	Ho rejected

Table 8 presents the analysis of the difference in the nature of parental involvement in reading and learners' performance in reading

using digital games. The F-tests conducted for each variable—Parenting, Communicating, Volunteering, Learning at Home, Decision Making, and Overall Involvement—reveal significant differences in learners' performance based on certain aspects of parental involvement. The variables of Parenting, Communicating, Learning at Home, Decision Making, and Overall Involvement all show statistically significant differences in learners' performance, as indicated by the low p-values ($p < 0.05$) and the rejection of the null hypothesis (H_0). This suggests that these aspects of parental involvement in reading have an impact on learners' performance in reading using digital games. However, the variable of Volunteering did not show a significant difference in learners' performance, as the p-value exceeded the threshold of significance ($p > 0.05$), leading to the acceptance of the null hypothesis for this variable. These results imply that specific forms of parental involvement, such as parenting practices, communication with the school, engagement in learning activities at home, and participation in decision-making processes, can significantly influence learners' performance in reading when digital games are utilized as an educational tool.

Conclusion

In conclusion, the analysis of parental involvement in reading and its relationship with learners' performance in reading using digital games reveals several key findings. While certain aspects of parental involvement, including parenting practices, communication with the school, engagement in learning activities at home, and participation in decision-making processes, show significant positive impacts on learners' performance in reading with digital games, volunteering does not exhibit a significant influence. These results emphasize the importance of specific forms of parental involvement in fostering improved reading outcomes for students when digital games are integrated into educational practices. Furthermore, the findings underscore the need for targeted efforts to enhance parental engagement strategies, particularly in areas such as communication and collaboration with schools, to effectively support students' literacy development in digital learning environments.

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