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Article

Exploring The Relationship Between Addiction to Gadget Use and Reading Development in Grade One Learners

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Abstract: This study examined the relationship between gadget addiction and reading development in Grade One learners, utilizing a descriptive quantitative research approach. Data were collected from parents to analyze learners' gadget usage habits and their reading proficiency. Initial findings indicated a significant negative correlation between higher levels of gadget addiction and lower reading skills, particularly in reading fluency and comprehension. While the correlation was not extremely strong, it was evident that excessive gadget uses hindered reading development. The participants displayed moderate levels of gadget addiction, which adversely affected their literacy abilities. This underscores the necessity for parents, educators, and policymakers to monitor and regulate children's screen time. The study recommends interventions aimed at reducing screen usage and promoting balanced literacy activities as essential components of educational strategies to enhance reading skills. Furthermore, it concludes that additional research is needed to better understand this dynamic and to develop targeted interventions. Addressing gadget addiction early may be crucial in fostering improved reading outcomes among young learners, ensuring a healthy balance between digital engagement and literacy development.

Keywords: Early Childhood Education, Addiction to Gadget Use, Reading Development, Grade One Learners

Introduction

Reading development is a critical component of early childhood education, as it forms the foundation for academic success and lifelong learning (Snow et al., 2019). Early literacy skills, including phonemic awareness, vocabulary acquisition, and reading comprehension, are strong predictors of future academic performance (Lonigan & Shanahan, 2020). The rapid advancement of digital technologies has introduced new trends in education and entertainment, leading to an

increase in gadget use among children as young as five years old (Tariq et al., 2020). By the time they enter Grade One, many children are already familiar with various gadgets, including smartphones and tablets, often using them for both learning and leisure (Dong et al., 2021).

The increasing prevalence of gadget use among young children has raised concerns about its impact on cognitive and behavioral development, particularly among early learners (Domoff et al., 2019). Prolonged and unregulated use of digital devices has been associated with delays in cognitive development, including language acquisition and early literacy skills (Hutton et al., 2020). Excessive screen time may lead to a phenomenon known as gadget addiction, which refers to compulsive or excessive dependence on digital devices for entertainment or distraction (Hawi & Samaha, 2020). This addiction is increasingly recognized as a potential impediment to learning, as it can limit children's engagement with traditional literacy activities, such as reading books (Chen et al., 2021).

Key indicators of gadget addiction in young children include prolonged screen time, emotional dependence on gadgets, and the use of devices as a primary source of entertainment or stress relief (Mendoza et al., 2021). Children who exhibit these behaviors often struggle to transition from digital to print-based learning environments, which may impede their reading development (Cheng & Yuen, 2022). Research suggests that children addicted to gadgets may have lower levels of reading fluency, comprehension, and vocabulary acquisition compared to their peers who have balanced media exposure (Ophir et al., 2020). Gadget addiction, therefore, presents a significant challenge for educators aiming to foster early literacy skills in Grade One learners (Kim & Chun, 2021).

Early reading development is not only crucial for immediate academic achievement but also for long-term educational outcomes (García & Cain, 2020). Studies have shown that children who develop strong reading skills in early grades tend to perform better across various subjects in later years, including math, science, and social studies (Smith et al., 2021). Literacy serves as the foundation for acquiring knowledge in all academic areas, and deficiencies in reading during the early years can lead to persistent academic challenges (Castro et al., 2022). The importance of early intervention in reading is therefore critical for long-term academic success (Lopez et al., 2022).

In light of these trends, there is a growing need to balance technology use with traditional literacy development in early learners (Subrahmanyam et al., 2021). While gadgets offer certain educational benefits, such as interactive learning apps, excessive reliance on them can undermine the development of essential reading skills (Kucirkova & Littleton, 2020). Teachers and parents need to implement strategies that ensure children engage in traditional literacy activities, such as reading printed books, alongside the use of digital media (Wolf et al.,

2022). Striking the right balance is essential for promoting a holistic approach to literacy development in the digital age (Zhong et al., 2021).

The study of the relationship between gadget addiction and reading development has the potential to offer significant insights for educators, parents, and policymakers (Ihmeideh et al., 2022). By identifying the specific ways in which gadget addiction affects literacy acquisition, this research could inform the development of intervention strategies aimed at mitigating the negative impacts of excessive screen time (Leung & Wang, 2023). Additionally, it could contribute to the growing body of literature on the influence of digital media on early childhood education, providing a foundation for further research and policy development (Mansor & Mahmoud, 2023).

The primary objectives of this study are twofold: (1) to determine the extent of gadget addiction among Grade One learners and (2) to explore the correlation between gadget addiction and key components of reading development, such as reading fluency, comprehension, and vocabular. Assessing these relationships, the study aims to provide educators with practical recommendations for managing gadget use to optimize reading outcomes. This research will also investigate how socioeconomic factors and parental involvement may influence the interplay between gadget use and literacy development.

Future research should focus on longitudinal studies that track the impact of gadget use on literacy development over time, as this would provide a more comprehensive understanding of its long-term effects. There is also a need for experimental studies that explore the effectiveness of various intervention strategies, such as limiting screen time or incorporating digital literacy into reading curricula. Addressing these gaps, researchers can contribute to a deeper understanding of how technology and traditional literacy practices can be integrated to support early reading development.

Methodology

This study utilized a quantitative descriptive correlational research approach to systematically examine the level of gadget addiction and its effects on learners' reading skills. This methodology facilitates objective measurement and statistical analysis of variable relationships, making it well-suited for the study's aims. Through quantitative data, the research seeks to identify patterns, trends, and correlations, offering empirical insights into the influence of gadget addiction on reading skills. According to Creswell (2014), a descriptive correlational design is valuable for capturing an accurate view of current conditions and assessing variable relationships without altering the study environment. This approach's strength lies in its ability to gather data from a wide sample, allowing for generalization of findings to similar contexts and populations. A survey questionnaire was used to gather quantitative data, ensuring the study's objectivity and reproducibility. The data

collected underwent statistical analysis to evaluate the direction and strength of the relationship between gadget addiction and reading skills. This detailed analytical process provides a strong basis for making conclusions about the effects of gadget addiction on children's reading abilities. By closely analyzing these connections, the study contributes to the existing academic literature while offering practical insights for educators, policymakers, and curriculum developers working to enhance early literacy outcomes.

Results and Discussion

Table 1. Age and Gender of the Respondents

Age (in years)	Female		Male		Total	
	f	%	f	%	f	%
8 and above	3	4.69	1	1.56	4	6.25
7	21	32.81	17	26.56	38	59.38
6	14	21.88	8	12.50	22	34.38
Total	38	59.38	26	40.63	64	100.00

Table 1 presented the age and gender distribution of the 64 respondents in the study. It is evident that the majority of the grade one pupils are 7 years old, with 21 females (32.81%) and 17 males (26.56%) in this age group. There were also 14 females' pupils (21.88%) and 8 males (12.50%) who are 6 years old, there were 3 females (4.69%) and only 1 male who is 8 years old and above. In summary, the majority of the grade one pupils were 7 years old, and there were more females than males in the sample.

Table 2. Parents' Highest Educational Attainment

Educational Attainment	Mother		Father	
	f	%	f	%
College Graduate	7	10.94	12	18.75
College Level	10	15.63	7	10.94
High School Graduate	30	46.88	28	43.75
High School Level	10	15.63	3	4.69
Elementary Graduate	3	4.69	2	3.13
Elementary Level	3	4.69	8	12.50
No formal Education	1	1.56	4	6.25
Total	64	100.00	64	100.00

Table 3 provided a detailed overview of the highest educational attainment of the parents of the 64 grade one pupils in the study. Notably, the majority of both mothers and fathers fall into the "High School Graduate" category, with 30 mothers (46.88%) and 28 fathers (43.75%) having completed education at this level. Following this, the "College Graduate" category also accounts for a significant portion of the sample, with 7 mothers (10.94%) and 12 fathers (18.75%) having attained this level of education. Additionally, there were a few cases

where parents did not provide a response to this question. Parental educational attainment significantly shapes a child's educational journey. Various studies have established that parental education impacts a child's cognitive development, educational aspirations, and long-term success.

Table 3 Extent of the child's addiction towards gadgets' use

S/N	Indicators	WM	Verbal Description
1	It is hard for my child to stop using screen media	3.28	Moderate
2	Screen media is the only thing that seems to motivate my child	2.50	Low
3	Screen media is all that my child seems to think about	2.42	Low
4	My child's screen media use interferes with family activities	3.31	Moderate
5	My child's screen media use causes problems for the family	2.81	Moderate
6	My child becomes frustrated when he/she cannot use screen media	2.92	Moderate
7	The amount of time my child wants to use screen media keeps increasing	2.89	Moderate
8	My child sneaks using screen media	3.05	Moderate
9	When my child has had a bad day, screen media seems to be the only thing that helps him/her feel better	2.58	Low
Aggregate Weighted Mean		2.86	Moderate

The data in Table 3 presents a nuanced view of children's addiction to gadget use, revealing an overall moderate level of addiction with an aggregate weighted mean (WM) of 2.86. Notably, indicators such as the difficulty in stopping screen media use (WM: 3.28) and the interference of screen time with family activities (WM: 3.31) suggest significant concerns regarding the impact of technology on family dynamics. Additionally, the tendency for children to sneak usage (WM: 3.05) and their frustration when unable to access screens (WM: 2.92) further highlight potential behavioral issues associated with excessive media consumption. While some indicators, like the notion that screen media is the sole motivator for the child (WM: 2.50) and their overall preoccupation with screens (WM: 2.42), indicate a lower level of concern, they still reflect a dependency that merits attention. Overall, the findings suggest a pressing need for strategies to manage and moderate screen time, emphasizing the balance between digital engagement and healthy family interactions.

Table 4. Level of Reading Skills of the Learners

Reading Skills	Range of Scores	f	%
Outstanding	16-20	41	64.06
Very Satisfactory	11-15	6	9.38
Satisfactory	6-10	1	1.56
Poor	0-5	16	25.00
Total		64	100.00

Table 4 provides an overview of the reading skills levels among learners, indicating a predominantly high level of proficiency. A substantial 64.06% of students achieved an outstanding score, with 41 learners scoring between 16-20, suggesting that most are excelling in their reading abilities. Conversely, only a small fraction of students demonstrated very satisfactory (9.38%) or satisfactory (1.56%) skills, with just 6 and 1 learner(s) respectively falling into these categories. Notably, 25% of the learners scored in the poor range (0-5), highlighting a significant minority that struggles with reading skills. Overall, while the majority exhibit strong reading competencies, the presence of a quarter of learners in the poor category underscores the need for targeted interventions to support those who are not meeting the expected reading standards.

Table 5. Test of relationship between the gadget addiction and reading skills of the learners

Variables	r-value	Strength of Correlation	p - value	Decision	Remarks
Gadget Addiction and Reading Skills	-0.348*	Weak Negative	0.005	Reject Ho	Significant

*significant at p<0.05 (two-tailed)

Table 5 presents the results of the correlation analysis between gadget addiction and reading skills of learners, revealing a weak negative correlation ($r = -0.348$) with a p-value of 0.005. This statistically significant finding (at $p < 0.05$) suggests that as gadget addiction increases, reading skills tend to decrease, albeit only slightly. The negative correlation implies that excessive screen time may be associated with poorer reading abilities among learners. Given the significance of the results, the null hypothesis can be rejected, indicating that there is a meaningful relationship between these two variables. This underscores the importance of addressing gadget addiction to potentially improve reading skills, suggesting that educators and parents should consider strategies to manage screen time effectively in order to foster better literacy outcomes.

Discussion

The analysis of the data reveals important trends regarding age, gender, parental education, gadget addiction, and reading skills among grade one pupils. The demographic data indicate that the majority of the respondents are seven years old, with a notable representation of

females compared to males. This age group aligns with a critical period in cognitive and linguistic development, where foundational skills are formed (Choudhury et al., 2020). Parental education levels, as indicated in Table 2, significantly influence children's educational outcomes. Research consistently shows that higher parental educational attainment correlates with better academic performance in children, emphasizing the role of familial support in educational success (Kim & Schneider, 2020). Moreover, the relationship between gadget addiction and reading skills, highlighted in Table 5, suggests that increased screen time may negatively impact literacy development. The weak negative correlation ($r = -0.348$) implies that as children become more reliant on gadgets, their reading skills may decline. This finding is consistent with contemporary studies that indicate excessive screen time can hinder reading development, primarily due to reduced engagement with traditional reading materials and diminished parent-child reading interactions (Hinkley et al., 2019). To address these concerns, it is essential for educators and parents to implement strategies that limit screen time and promote reading as a vital component of children's daily activities. Encouraging balanced media use can help foster better literacy outcomes and support children's overall cognitive growth (Vandewater et al., 2021).

Conclusion

The data from this study highlight significant insights into the demographic characteristics of grade one pupils, their reading skills, and the impact of gadget addiction on literacy development. The majority of respondents are seven years old, with a predominance of females, and the educational attainment of parents plays a crucial role in shaping children's academic performance. Notably, the moderate levels of gadget addiction and the weak negative correlation between screen time and reading skills underscore the need for interventions aimed at managing screen use among young learners. As excessive screen time is linked to poorer reading abilities, it is essential for educators and parents to prioritize reading activities and foster environments that encourage balanced media consumption. By doing so, they can support the cognitive development of children and enhance their literacy outcomes, ultimately laying a stronger foundation for their future academic success.

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