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| RESEARCH ARTICLE

Screen Dependency and Oral Language Development of Kindergarten Children

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| ABSTRACT

This study investigated the relationship between unregulated screen time and the language and literacy skills of 40 Kindergarten learners at Tagjaguimit Elementary School, City of Naga, Cebu, during the 2025–2026 school year. Utilizing a descriptive-correlational design, the research examined parental profiles, learners' daily screen habits, and their developmental outcomes. Data were gathered through adapted survey questionnaires, teacher-completed checklists, and classroom observations, then analyzed using weighted means and Pearson correlation coefficients. The findings reveal that parent-respondents are predominantly young to middle-aged, lower-income earners with high school education, which may influence their supervision of digital device access. Learners generally engage in moderate screen time, averaging 1–2 hours daily, primarily for educational purposes and entertainment. While learners demonstrate strong foundational skills, such as letter recognition and following directions, notable gaps persist in expressive and higher-order tasks, including storytelling, vocabulary use, and sentence construction. Statistical analysis yielded negligible positive correlations between unregulated screen time and language ($r = 0.220$) or literacy ($r = 0.208$) skills, indicating that screen duration alone does not significantly impact these competencies. The study concluded that the quality and purpose of digital engagement are more critical than quantity. It recommended the implementation of guided digital learning programs, parental workshops on purposeful screen use, and targeted interventions focusing on expressive language skills. These measures aim to bridge developmental gaps and ensure technology serves as a constructive tool for early childhood education within the semi-rural community setting.

| KEYWORDS

Screen dependency, unregulated screen time, oral language development, literacy skills, Kindergarten learners

| ARTICLE INFORMATION

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Introduction

The increasing presence of digital devices in children's homes has changed the early learning environment of many Kindergarten learners (Ling et al., 2022). Televisions, smartphones, tablets, and online video platforms are now common sources of entertainment and information for young children. While digital media may offer educational benefits when content is age-appropriate and guided by adults, unregulated screen time may reduce children's opportunities for conversation, storytelling, social play, book handling, and interaction with adults and peers (Aldhilan et al., 2025). The World Health Organization emphasizes that children's sedentary behavior, including recreational screen use, should be limited and balanced with physical activity, sleep, and social interaction because these routines are important for healthy development (World Health Organization, 2020).

In Kindergarten, oral language development is one of the strongest foundations for school readiness. Children's ability to listen, follow directions, express ideas, answer questions, name objects, describe experiences, and participate in conversations supports later reading and writing. Oral language skills are also closely connected to vocabulary development, phonological

awareness, comprehension, and early literacy performance. Research on reading development shows that language comprehension, vocabulary, and background knowledge are essential for children's ability to understand texts as they progress in school (Duke, Ward, & Pearson, 2021). Similarly, Hjetland et al. (2020) found that early language abilities are important pathways leading to later reading comprehension.

Recent studies have raised concern about the relationship between high screen exposure and young children's language development. A systematic review and meta-analysis by Madigan et al. (2020) reported that greater quantity of screen use was generally associated with lower child language skills, while better-quality screen experiences, such as educational content and adult co-viewing, were associated with stronger language outcomes. This suggests that screen time is not only a matter of duration but also of regulation, content, and adult involvement. When children use screens without guidance, they may receive fewer chances to practice expressive language, ask and answer questions, or engage in meaningful back-and-forth communication.

Literacy development in kindergarten also requires active and repeated exposure to print, sounds, letters, stories, drawing, writing, and oral discussion. Early literacy skills include letter recognition, sound awareness, print awareness, vocabulary, listening comprehension, and emergent writing. Excessive or unregulated screen use may affect these skills when it replaces shared reading, storytelling, manipulative play, and classroom-like routines at home. Hutton et al. (2020) found that higher screen-based media use among preschool-aged children was associated with differences in brain white matter tracts related to language and emergent literacy skills. This finding supports the need to examine how screen habits may be connected to children's observed literacy behaviors during the early years.

Despite growing evidence on screen exposure and child development, several research gaps remain. Many existing studies focus on general screen time, but fewer studies specifically examine unregulated screen time, which refers to screen use without consistent adult supervision, time limits, content monitoring, or guided interaction. In addition, much of the available research comes from broader international contexts, while fewer school-based studies describe the experiences of kindergarten learners in local public elementary school settings. For Don Andres Soriano Elementary School, there is a need to document how much unregulated screen time learners experience per day and how their language and literacy skills are observed in the classroom. This local evidence is important because screen habits, family routines, access to devices, and home literacy practices may differ across communities.

This study therefore seeks to assess the relationship between screen dependency and the oral language and literacy development of kindergarten children at Don Andres Soriano Elementary School. Specifically, it aims to determine the average unregulated screen time of learners per day, the level of their observed language skills, and the level of their observed literacy skills. By focusing on these areas, the research may provide useful information for teachers, parents, and school leaders in planning developmentally appropriate interventions. The findings may also support stronger home-school collaboration, including parent orientation on healthy screen habits, guided media use, storytelling, shared reading, and language-rich activities that promote Kindergarten learners' communication and early literacy development.

Literature Review

Digital devices have become part of many Kindergarten children's daily routines, making screen dependency an important concern in early childhood education. Learners may be exposed to smartphones, tablets, television, online videos, and games before they develop the ability to regulate their own media use. When screen time is unregulated, children may spend long periods using devices without adult supervision, content monitoring, or time limits. Studies show that many young children exceed recommended screen-time limits, and high screen exposure has been linked to different developmental and health concerns (McArthur et al., 2022; Li et al., 2020). Screen use becomes more concerning when it replaces play, conversation, sleep, physical activity, and parent-child interaction, which are necessary for young children's growth and learning (Radesky et al., 2020). Early exposure to screen media has also been associated with later cognitive and communication outcomes, suggesting that screen habits during the preschool and Kindergarten years may influence school readiness (Supanitayanon et al., 2020; Takahashi et al., 2023).

Oral language and literacy skills are essential foundations for kindergarten learning because they help children listen, speak, follow directions, answer questions, understand stories, recognize sounds, identify letters, and begin writing. Language development depends strongly on meaningful interaction, rich vocabulary exposure, storytelling, and responsive communication with adults and peers (Rowe & Snow, 2020). However, excessive or unguided screen use may reduce parent-child talk and limit opportunities for children to practice expressive and receptive language (Brushe et al., 2024). Research also shows that children's digital media use is associated with language development, especially when media use affects the quality of interaction in the home environment (Sundqvist et al., 2021). Since early literacy requires phonological awareness, alphabet knowledge, oral vocabulary, and print-related experiences, Kindergarten learners need guided activities that connect

spoken language with reading and writing (Ehri, 2020). Reading and writing should also develop together through meaningful literacy experiences, making it important for this study at Don Andres Soriano Elementary School to assess learners' average unregulated screen time per day and their observed language and literacy skills (Graham, 2020).

Methodology

This study employed a descriptive-correlational research design to describe the unregulated screen time and the observed language and literacy skills of kindergarten learners and to determine the relationship among these variables. The study was conducted at Tagjaguimit Elementary School, Barangay Tagjaguimit, City of Naga, Cebu, a public elementary school serving learners from Kindergarten to Grade 6. The respondents were the 40 enrolled Kindergarten learners. The scoping procedure of the study was limited to identifying the learners' average daily unregulated screen time and assessing their observed language and literacy development during the period of data gathering. It did not include other developmental areas such as numeracy, motor skills, or socio-emotional behavior. Parent surveys were used to gather data on screen exposure, while teacher-guided assessment checklists were used to determine the learners' language and literacy skills. The screen time indicators were adapted from Vandewater et al. (2007), while the language and literacy checklists were adapted from Wetherby and Prizant (2002), the National Early Literacy Panel (2008), Clay (1991), and Snow, Burns, and Griffin (1998). The data were scored using a 5-point Likert scale. For screen time, ratings ranged from "Never" or not used at all to "Always" or 7–8 hours per day. For language and literacy skills, ratings ranged from "At Risk – Needs Monitoring" to "Very Good." Data were tabulated and analyzed using Microsoft Excel, weighted mean, and Pearson's r. The methodology ensured an organized process for determining whether unregulated screen time is associated with the language and literacy development of kindergarten learners.

Table 1. *Learners' purpose of screen time*

Purpose of screen time	f	Rank
Educational	32	1
Entertainment	14	3
To calm the child	11	4
While parents are busy	21	2

*multiple response

Results

Table 1 shows that the main purpose of learners' screen time was educational, ranking first with 32 responses. This implies that most parents allowed screen use for learning activities. Screen use while parents were busy ranked second with 21 responses, indicating its role as a temporary child activity. Entertainment ranked third with 14 responses, while calming the child ranked fourth with 11 responses. Overall, screen time served both educational and practical household purposes.

Table 2. *Average unregulated screen time of the learners per day*

Type of Screen time	WM	SD	Verbal Description
TV	2.13	0.79	1-2 hours
Youtube	2.28	0.82	1-2 hours
Ad Apps	2.23	1.00	1-2 hours
Aggregate Weighted Mean	2.21		1-2 hours
Aggregate Standard Deviation		0.87	

Table 2 shows that the learners had an average unregulated screen time of 1–2 hours per day, with an aggregate weighted mean of 2.21 and aggregate standard deviation of 0.87. YouTube obtained the highest mean of 2.28, followed by ad apps with 2.23, and television with 2.13. Although all screen types were interpreted as 1–2 hours, the results suggest that learners were slightly more exposed to mobile or online screen platforms than television.

Table 3. L*evel of observed language skills of the learners*

S/N	Indicators	WM	SD	Verbal Description
1	Understands and follows 2-step directions	3.95	0.93	Observed
2	Speaks in complete sentences	3.40	1.13	Moderately Observed
3	Uses age-appropriate vocabulary	3.38	1.05	Moderately Observed
4	Engages in conversation with peers	3.48	1.15	Observed
5	Answers WH- questions correctly	2.98	1.12	Moderately Observed
6	Tells a short story in sequence	3.18	0.93	Moderately Observed
	Aggregate Weighted Mean	3.39		Moderately Observed
	Aggregate Standard Deviation		1.05	

Table 3 shows that the learners' observed language skills were generally Moderately Observed, with an aggregate weighted mean of 3.39 and standard deviation of 1.05. The highest mean was on understanding and following 2-step directions (3.95), indicating stronger receptive language skills. Engaging in conversation with peers was also observed (3.48). However, speaking in complete sentences, using age-appropriate vocabulary, answering WH- questions, and telling a short story in sequence were only moderately observed, suggesting areas for language improvement.

Table 4. Level of observed literacy skills of the learners

S/N	Indicators	WM	SD	Verbal Description
1	Identifies letters of the alphabet	4.38	0.84	Highly Observed
2	Recognizes own name in print	3.85	1.03	Observed
3	Holds a book correctly and turns pages	3.28	0.96	Moderately Observed
4	Matches letters with sounds (phonemic awareness)	3.80	1.11	Observed
5	Understands left-to-right progression of reading	3.10	1.01	Moderately Observed
6	Retells stories read aloud	3.13	0.97	Moderately Observed
7	Attempts to write own name	3.45	0.90	Observed
	Aggregate Weighted Mean	3.57		Observed
	Aggregate Standard Deviation		0.97	

Table 4 shows that the learners' observed literacy skills were generally Observed, with an aggregate weighted mean of 3.57 and standard deviation of 0.97. The highest result was identifying letters of the alphabet (4.38), described as Highly Observed. Recognizing own name, matching letters with sounds, and attempting to write own name were Observed. However, holding a book correctly, understanding left-to-right progression, and retelling stories were only Moderately Observed, indicating areas needing literacy support.

Table 6. *Test of relationship between the unregulated screen time and the literacy skills of the learners*

Variables	r-value	Strength of Correlation	p - value	Decision	Remarks
Unregulated Screen Time and Literacy Skills	0.208	Negligible Positive	0.199	Do not reject Ho	Not Significant

*significant at $p<0.05$ (two-tailed)

Table 6 shows the relationship between unregulated screen time and the literacy skills of the learners. The computed r-value of 0.208 indicates a negligible positive correlation, meaning the relationship between the two variables is very weak. The p-

value of 0.199 is greater than the 0.05 level of significance; therefore, the null hypothesis is not rejected. This means that unregulated screen time has no significant relationship with the learners' literacy skills.

Table 7. *Test of relationship between the unregulated screen time and the language skills of the learners*

Variables	r-value	Strength of Correlation	p - value	Decision	Remarks
Unregulated Screen Time and Language Skills	0.220	Negligible Positive	0.173	Do not reject Ho	Not Significant

*significant at p<0.05 (two tailed)

Table 7 shows the relationship between unregulated screen time and the language skills of the learners. The computed r-value of 0.220 indicates a negligible positive correlation, which means that the relationship between the two variables is very weak. The p-value of 0.173 is greater than the 0.05 level of significance; therefore, the null hypothesis is not rejected. This means that unregulated screen time has no significant relationship with the learners' language skills.

Discussion

The results show that learners' screen time was mainly used for educational purposes, followed by use while parents were busy, entertainment, and calming the child. Their average unregulated screen time was only 1–2 hours per day, with YouTube showing the highest mean among the screen types. This suggests that although learners were exposed to screens, the level of use was not excessive based on the scale used. However, the use of screens while parents were busy and to calm the child indicates that screen time also served as a household management tool, not purely as a learning activity. This may still require parental guidance to ensure that children access age-appropriate and meaningful content. In terms of development, the learners' language skills were moderately observed, while their literacy skills were generally observed. They performed better in following directions, engaging with peers, identifying letters, recognizing their names, and matching letters with sounds. However, storytelling, answering WH- questions, book handling, and understanding reading direction still need improvement. The correlation results showed that unregulated screen time had no significant relationship with either literacy skills or language skills. This means that, in this study, screen time alone did not strongly explain the learners' language and literacy development. Other factors such as parental support, home reading practices, teacher instruction, and learner readiness may have greater influence.

Conclusion

The study reveals that Kindergarten learners generally engage in moderate screen time, averaging 1–2 hours per day, primarily for educational purposes and during productive hours such as morning and afternoon. While learners demonstrate foundational language and literacy skills, gaps remain in expressive abilities and higher-order literacy tasks, such as storytelling, vocabulary use, and comprehension. The demographic and socioeconomic profiles of parents predominantly young to middle-aged, lower-income, and with limited tertiary education may influence children's screen use patterns and access to learning resources. Importantly, unregulated screen time shows negligible impact on learners' language and literacy skills, highlighting that the quality and purpose of digital engagement, rather than quantity alone, are critical for supporting early learning and development.

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