
Teacher's Observations on the Effects of Electronic Gadget Usage on Learners' Attention and Focus

■ **Mary Jan Monteza:** Tagjaguimit Elementary School, Philippines.
E-mail: maryjanmonteza@gmail.com

Helen Revalde: Cebu Technological University, Philippines.

Dennis Plando: Cebu Technological University, Philippines.

Kaitlin Marie Opingo: Cebu Technological University, Philippines.

ABSTRACT: This research assessed the influence of electronic gadget usage on the attention and focus of kindergarten learners through a teacher-based assessment conducted at a selected kindergarten institution during the school year 2023–2024. The primary goal was to provide data for the development of a proposed intervention plan. Employing a descriptive-correlational research design, the study involved 60 purposively chosen kindergarten teacher-respondents who answered a validated survey questionnaire. The data gathered were analyzed using statistical tools such as the weighted mean and Pearson product-moment correlation coefficient. The results revealed that the majority of the pupils were six years old, female, had parents who were high school graduates, and came from families with two to three children, typically raised under an authoritative parenting style. Gadget usage among the children was generally described as “occasional,” with smartphones and tablets commonly used for entertainment purposes. In terms of learners’ attention and focus, high ratings were reported for both attention duration and task completion. However, learner engagement, although still rated high, showed a significant negative correlation with gadget usage. Statistical results indicated weak but significant positive correlations between gadget usage and both attention duration ($r = 0.330$) and task completion ($r = 0.347$). On the other hand, Pearson correlation showed negligible and non-significant associations between gadget use and all three attention-focus areas, implying that screen time alone may not substantially impact early learners’ attentiveness and engagement in school tasks.

Key words: Attention span, electronic gadgets, engagement level, kindergarten pupils, screen time, task completion.



1. Introduction

Kindergarten children are increasingly exposed to electronic gadgets such as tablets, smartphones, and TVs, which now play a role in both home and school environments. Studies have shown that prolonged screen time in early years is linked to delayed cognitive and language development, as well as higher risks of attention difficulties (Madigan, 2019; Wu, 2022; Hutton, 2020). Screen exposure has also been associated with reduced executive function, diminished imaginative play, and heightened cognitive load in young children (Rideout, 2017; Barr, 2019). These findings highlight the growing concern among educators and parents about balancing the educational potential of gadgets with their possible developmental risks.

Attention and focus skills crucial for future academic achievement are vulnerable to excessive gadget use. Research has shown that toddlers with more than 90 minutes of daily screen exposure are more likely to display hyperactivity and attentional problems by preschool age (Tamana, 2019; Walsh, 2020; Linebarger, 2004; Hinkley, 2019; Pagani, 2013). Cross-sectional studies also report that increased screen time is associated with weaker executive functioning, slower processing, and reduced sensorimotor skills (Wu, 2022; Chen, 2019). Furthermore, multitasking with gadgets tends to reduce efficiency in completing tasks, adding another layer of risk for learners still developing self-regulation (Foerde, 2016).

Gadget use can also influence emotional regulation, peer relationships, and classroom engagement. UNICEF notes that excessive early screen exposure can shorten attention spans and lower empathy (UNICEF, 2019). Experimental studies demonstrate that fast-paced media can cause immediate declines in executive function performance in preschoolers (Lillard, 2011; Anderson, 2017; Christakis, 2018; Linebarger, 2004; Hinkley, 2019). Such content conditions children to expect rapid stimulation, making it harder for them to sustain focus during slower-paced classroom activities (Radesky, 2016; Wu, 2022).

The duration of gadget use is a critical factor in its developmental impact. The American Academy of Pediatrics recommends no screen time for children under two and no more than one hour daily for ages three to five (AAP, 2016). Despite this, studies report that children in this age range often exceed these limits, with average daily usage between two and three hours (Walsh, 2020; Carson, 2020). Prolonged use has been linked to slower maturation of brain regions involved in imagery, self-regulation, and executive functioning (Hutton, 2020; Christakis, 2018). Task completion is another area of concern, as constant digital interruptions may erode a child's capacity to follow through on activities. Evidence suggests that multitasking with screens leads to longer completion times and lower-quality outcomes (Rosen, 2013; Uncapher, 2015). The instant gratification associated with digital media may also reduce persistence in tasks requiring sustained mental effort (Rideout, 2017; Madigan, 2019). Finally, engagement level can be reduced when children are overly accustomed to fast-paced digital stimulation. Studies have shown that high gadget use is associated with decreased participation in group activities and diminished enjoyment of traditional play (Wu, 2022; Carson, 2020; Hinkley, 2019; Rideout, 2017; Christakis, 2018). Reduced real-world social interaction opportunities can further undermine focus and sustained interest in classroom tasks (UNICEF, 2019; Radesky, 2016; Madigan, 2019; Hutton, 2020; Walsh, 2020).

Although numerous international and national studies have documented the cognitive, behavioral, and socio-emotional impacts of electronic gadget usage in early childhood there remains a lack of empirical data specific to the context of Tagjaguimit Elementary School. Existing research largely focuses on urban or technologically saturated environments, overlooking rural and semi-rural communities where access patterns, parental supervision, and cultural attitudes toward gadgets may differ significantly. Moreover, most prior work examines either cognitive or socio-emotional outcomes in isolation, rather than integrating measures of duration, task completion, and engagement level as perceived by parent-respondents. Without localized evidence, interventions and guidelines for managing gadget use in this school may rely on assumptions drawn from dissimilar populations, risking limited relevance and effectiveness in addressing the unique needs of its kindergarten pupils.

2. Literature Review

Several studies have examined the relationship between electronic gadget usage and young children's attention, with evidence pointing to both potential benefits and significant risks. Research indicates that moderate, structured gadget use can enhance early literacy, numeracy, and problem-solving skills when paired with quality educational content and adult guidance (Alper, 2016; Marsh, 2019). However, prolonged or unsupervised exposure is linked to reduced sustained attention, increased distractibility, and difficulties transitioning between tasks (Madigan, 2019; Tamana, 2019; Radesky, 2016). The rapid pacing and overstimulation of certain digital media appear to condition children to expect constant novelty, weakening their ability to persist with slower-paced classroom activities (Lillard, 2011; Anderson, 2017). Such findings underscore the need to differentiate between educational and entertainment-based gadget use when evaluating developmental impacts.

The effects of gadget usage extend beyond attention into broader cognitive and socio-emotional domains. Longitudinal and experimental studies have found that excessive screen time is associated with poorer executive function, lower academic readiness, and diminished self-regulation skills in preschool-aged children



(Pagani, 2013; Linebarger, 2004; Kucirkova, 2017). Moreover, frequent gadget use often displaces interactive play and real-world social engagement, reducing opportunities to develop empathy, cooperation, and conflict-resolution skills (UNICEF, 2019; Barr, 2019; Hutton, 2020; Radesky, 2016; Christakis, 2018). Notably, brain imaging research has shown structural differences in white matter among young children with high screen exposure, suggesting potential neurological pathways through which attention and learning are affected (Hutton, 2020; Horowitz-Kraus). These converging lines of evidence highlight the complex interplay between cognitive stimulation, behavioral conditioning, and social development in early gadget use.

3. Methodology

This study used a quantitative research design with a correlational and cross-sectional approach to examine the relationship between electronic gadget usage and the attention and focus of kindergarten pupils. Quantitative research was chosen because it collects numerical data that can be analyzed statistically, allowing the researcher to identify patterns, trends, and relationships between variables in an objective way. The correlational design helped determine whether there was a connection between the two main variables gadget usage and attention/focus without manipulating them. The cross-sectional approach meant that data was collected from the participants at one point in time, making it practical and efficient. The Input-Process-Output (IPO) model was used as the study’s framework, guiding how data was organized and interpreted. Two main survey instruments were used: the Electronic Gadgets Usage Survey, which had 15 statements about preschoolers’ exposure to gadgets, and the Attention and Focus Survey, which also had 15 statements about how gadget use affects pupils’ ability to pay attention and stay focused. Both surveys were answered by the parent-respondents using a five-point Likert scale: 5 (Strongly Agree), 4 (Agree), 3 (Undecided), 2 (Disagree), and 1 (Strongly Disagree). This allowed respondents to express varying degrees of agreement or disagreement. After collecting the data, statistical analysis was conducted to determine the direction (positive or negative) and strength of the relationships between variables. The findings were intended to provide both academic insights and practical strategies for improving attention and focus in early childhood education.

4. Results

Table 1. Extent of Engagement in the Use of Electronic Gadgets.

S/N	Indicators	WM	Verbal Description
1	My child uses a smartphone or tablet at home.	3.87	Frequent
2	My child uses gadgets primarily for entertainment (watching videos, playing games, etc.).	3.62	Frequent
3	My child uses gadgets for more than 2 hours per day.	3.22	Frequent
4	Gadget usage affects my child’s regular sleep schedule.	2.82	Occasional
5	Gadget usage affects my child’s eating habits.	2.73	Occasional
6	My child insists on using gadgets during mealtime or family time.	2.72	Occasional
7	My child prefers using gadgets over interacting with peers or siblings.	2.58	Occasional
8	My child becomes irritable, angry, or upset when gadgets are taken away or restricted.	2.60	Occasional
9	My child uses gadgets without adult supervision.	2.90	Occasional
10	My child asks for gadgets immediately after waking up or arriving home from school.	3.10	Occasional
Aggregate Weighted Mean		3.02	Occasional
Standard Deviation		0.49	

The parents’ perception in Table 1 has shown the overall weighted mean for gadget usage is 3.02, interpreted as "Occasional." The highest indicators include using smartphones or tablets (WM = 3.87) and using gadgets for entertainment (WM = 3.75). However, activities like unsupervised use or use during family time scored lower, reflecting moderate control over gadget access. This implies that while gadget use is prevalent, it is not excessive, and some regulation exists within the household. Occasional gadget use suggests families may be attempting to balance digital exposure with other developmental activities. According to



Tandon et al. (2021) found that screen use tied to educational content when scaffolded by adult interaction can promote focused attention and cognitive development. Similarly, Radesky et al. (2020) emphasize that when screen time is used for educational content and is guided by a caregiver, it can promote focused attention and deeper learning. However, consistent unsupervised or passive media consumption even in moderate amounts may still pose risks. Lissak (2022) warned that without structured screen routines and boundaries, occasional exposure may escalate into habits that impair sustained focus and social interaction in young children. Domoff et al. (2020) further argue that occasional use can lead to problematic patterns over time if boundaries are not clearly defined and maintained. These findings reinforce the importance of not only limiting screen time but also actively shaping its quality through guided, intentional, and developmentally aligned digital use especially in early childhood where attention and self-regulation are still emerging skills.

The parents’ perception in Table 2 has shown the overall weighted mean for gadget usage is 3.02, interpreted as "Occasional." The highest indicators include using smartphones or tablets (WM = 3.87) and using gadgets for entertainment (WM = 3.75). However, activities like unsupervised use or use during family time scored lower, reflecting moderate control over gadget access. This implies that while gadget use is prevalent, it is not excessive, and some regulation exists within the household. Occasional gadget use suggests families may be attempting to balance digital exposure with other developmental activities. According to Tandon et al. (2021) found that screen use tied to educational content when scaffolded by adult interaction can promote focused attention and cognitive development.

Table 2. Level of Attention and Focus among Kindergarten Pupils in terms of Duration.

S/N	Indicators	WM	Verbal Description
1	My child stays focused on an activity (e.g., playing or drawing) for several minutes without shifting.	3.73	High
2	My child remains seated and attentive during family activities like mealtime or storytelling.	3.62	High
3	My child continues an activity (e.g., puzzle, toy play) without frequently getting up or stopping.	3.62	High
4	My child can focus on a task or play independently for at least 5–10 minutes.	3.53	High
5	My child does not need frequent reminders to stay in one place while doing an activity.	3.30	High
Aggregate Weighted Mean		3.56	High
Standard Deviation		0.16	

Similarly, Radesky et al. (2020) emphasize that when screen time is used for educational content and is guided by a caregiver, it can promote focused attention and deeper learning. However, consistent unsupervised or passive media consumption even in moderate amounts may still pose risks. Lissak (2022) warned that without structured screen routines and boundaries, occasional exposure may escalate into habits that impair sustained focus and social interaction in young children. Domoff et al. (2020) further argue that occasional use can lead to problematic patterns over time if boundaries are not clearly defined and maintained. These findings reinforce the importance of not only limiting screen time but also actively shaping its quality through guided, intentional, and developmentally aligned digital use especially in early childhood where attention and self-regulation are still emerging skills.



Table 3. Level of Attention and Focus among Kindergarten Pupils in terms of Task Completion.

S/N	Indicators	WM	Verbal Description
1	My child finishes household routines or simple tasks (e.g., putting away toys, brushing teeth) when asked.	3.63	High
2	My child completes activities like coloring or building blocks without leaving them unfinished.	3.58	High
3	My child usually completes one task before starting a new one.	3.65	High
4	My child returns to a task after being interrupted or distracted.	3.52	High
5	My child follows simple directions (e.g., “pack away your toys”) until the task is fully done.	3.83	High
Aggregate Weighted Mean		3.64	High
Standard Deviation		0.12	

Table 3 shows that the task completion dimension also scored high (WM = 3.64), with the highest item being “follows simple directions” (WM = 3.83). Pupils show a consistent ability to complete activities and routines, indicating that gadget usage has not severely hindered their ability to finish tasks. These results suggest that clear, structured expectations at home and in the classroom foster strong executive functions planning, organization, and persistence even when children have some access to electronic devices. Gomez et al. (2020) reported that children who were taught to break tasks into smaller, manageable steps were better able to sustain effort and complete assignments, even when digital distractions were present at home. Moreover, Mammadov (2020) highlighted that interventions teaching children to break tasks into smaller, manageable parts significantly improved their ability to complete tasks despite background distractions like media devices. These studies emphasize that it’s not simply the amount of gadget exposure that matters but how adults’ scaffold and structure children’s activities. Maintaining clear routines, modeling task-completion behaviors, and providing step-by-step guidance, parents and teachers can help young learners build the executive skills needed to persist through tasks screen time or no screen time.

Table 4. Level of Attention and Focus among Kindergarten Pupils in terms of Engagement Level.

S/N	Indicators	WM	Verbal Description
1	My child shows excitement or joy when doing play or learning activities at home.	4.07	High
2	My child willingly joins in family conversations or activities like storytelling or singing.	3.98	High
3	My child pays attention and responds when spoken to (e.g., looks, answers, or nods).	4.07	High
4	My child initiates learning activities on their own (e.g., looking at books, asking questions, building toys).	3.78	High
5	My child shows curiosity about new things (e.g., asking “why” or exploring how things work).	4.17	High
Aggregate Weighted Mean		4.01	High
Standard Deviation		0.14	

Table 4 shows that engagement level scored the highest among all dimensions (WM = 4.01). Pupils showed strong interest and curiosity in play and learning activities, as well as active participation in conversations. This positive engagement points to a healthy level of cognitive stimulation and social interaction. Despite screen exposure, children’s natural curiosity and social drive remain strong, a testament to the power of guided interaction. Tandon et al. (2021) found that when digital media is used in tandem with caregiver interaction such as co-viewing or parent-facilitated e-book reading children exhibit deeper focus and more meaningful engagement. Similarly, Radesky and Hiniker (2021) reported that transitions from screen time to collaborative, physical, or play-based tasks significantly enhance young children's ability to reengage

with peers and learning activities. These studies suggest that well-timed, scaffolded transitions between screen time and interactive learning can preserve and even boost engagement in young learners.

Table 5. Test of relationship between the Usage of Electronic Gadget and the Level of Attention and Focus among Kindergarten Pupils.

Variables	r-value	Strength of Correlation	p - value	Decision	Remarks
Usage of Electronic Gadgets and Duration	0.095	Negligible Positive	0.473	Do not reject Ho	Not Significant
Usage of Electronic Gadgets and Task Completion	0.059	Negligible Positive	0.653	Do not reject Ho	Not Significant
Usage of Electronic Gadgets and Engagement Level	0.028	Negligible Positive	0.833	Do not reject Ho	Not Significant

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

Table 5 shows that there is a negligible and statistically insignificant relationship between electronic gadget use and all three areas of attention and focus: duration ($r = 0.095$, $p = 0.473$), task completion ($r = 0.059$, $p = 0.653$), and engagement level ($r = 0.028$, $p = 0.833$). These results indicate that, within this group of kindergarten pupils, gadget use does not significantly affect their ability to stay focused, complete tasks, or stay engaged in learning activities. This suggests that moderate and supervised gadget use, as practiced by many families in the study, may not be inherently harmful nor particularly beneficial when it comes to attention and focus in early learners. This aligns with findings by Domoff et al. (2020) found that increased screen time especially when unstructured or unsupervised is linked to reduced attention span and weaker task persistence. Tandon et al. (2021) reported that heavy screen use correlates with lower engagement in classroom activities, particularly when it replaces active play or social learning. While technology alone doesn't appear to boost or harm attention and focus in this case, these findings reinforce the idea that how gadgets are used is more important than how often they are used. It remains important for parents and teachers to ensure that screen time is balanced, purposeful, and combined with interactive learning experiences that foster deeper development.

5. Discussion

The results of the study show that, on average, kindergarten pupils only use gadgets occasionally, with an overall score of 3.02. While smartphones and tablets are used frequently for entertainment, other possible negative effects, such as disrupted sleep, eating habits, or social withdrawal, were only occasional. Parents appear to have some control over gadget access, as unsupervised use and use during family time were less common. Despite some exposure, pupils still scored high in all three areas of attention and focus duration, task completion, and engagement level showing that they can stay focused, complete activities, and participate actively in learning and play. This suggests that when gadget use is moderate and guided by adults, it may not significantly harm children's attention or social behavior. These findings support earlier research showing that supervised and intentional screen time, especially when paired with educational content, can be neutral or even positive for young children's focus and learning. The statistical tests confirmed that gadget use had no significant relationship with any of the three focus areas. This means that in this group, the amount of time spent on gadgets did not strongly affect the children's ability to pay attention, complete tasks, or engage in activities. One reason could be that most families in the study practiced balanced use allowing gadgets but also ensuring time for physical play, family interaction, and other non-digital activities. This balance may help protect children from the negative effects often seen with excessive or unsupervised screen time. However, the results also highlight that the quality of screen use matters more than the quantity. Guided, educational, and age-appropriate digital activities can fit into a healthy routine, but clear rules and limits are still necessary to prevent future problems with focus and social interaction.



6. Conclusion

Based on the analysis and findings of this study, it is concluded that moderate use of electronic gadgets among kindergarten pupils, does not significantly impact their attention and focus. Learners demonstrated strong performance in attention-related behaviors particularly in task completion, sustained focus, and engagement regardless of their screen time levels. The negligible correlations between gadget usage and the three attention variables (duration, task completion, and engagement) suggest that electronic devices, when used occasionally and under appropriate supervision, neither hinder nor enhance these cognitive skills in early learners. However, the data also indicate that engagement, as a deeper and more interactive form of learning, may be more sensitive to the quality of screen experiences rather than the frequency of use. These conclusions emphasize the vital role of guided and intentional technology use, where both parents and teachers serve as active mediators. It reinforces the importance of focusing not only on how much screen time children have, but more critically, on what content they consume, how they engage with it, and the presence of adult interaction during their media use. Thus, a collaborative effort between home and school is essential to create developmentally appropriate, engaging, and balanced digital experiences that support not replace hands-on, play-based, and interpersonal learning critical at the kindergarten level.

References

- Alper, M. (2016). Developmentally appropriate new media literacies: Supporting cultural competencies and social skills in early childhood education. *Journal of Early Childhood Literacy*, 16(4), 479–505. <https://doi.org/10.1177/1468798415590843>
- American Academy of Pediatrics. (2016). Media and young minds. *Pediatrics*, 138(5), e20162591. <https://doi.org/10.1542/peds.2016-2591>
- Anderson, D. R. (2017). The impact of television on cognitive development and educational achievement. *Journal of Communication*, 67(2), 235–253. <https://doi.org/10.1111/jcom.12232>
- Barr, R. (2019). Growing up in the digital age: Early learning and family media ecology. *Current Directions in Psychological Science*, 28(4), 341–346. <https://doi.org/10.1177/0963721419838245>
- Carson, V. (2020). Systematic review of sedentary behavior and cognitive development in early childhood. *Preventive Medicine Reports*, 20, 101243. <https://doi.org/10.1016/j.pmedr.2020.101243>
- Chen, B. (2019). The relationship between screen time and executive function in preschoolers. *Early Childhood Research Quarterly*, 46, 1–10. <https://doi.org/10.1016/j.ecresq.2018.04.001>
- Christakis, D. A. (2018). Interactive media use at younger than the age of 2 years: Time to rethink the American Academy of Pediatrics guideline? *JAMA Pediatrics*, 172(5), 399–400. <https://doi.org/10.1001/jamapediatrics.2018.0001>
- Domoff, S. E., Radesky, J. S., Harrison, K., Riley, M., Lumeng, J. C., & Miller, A. L. (2020). A naturalistic study of child and family screen media and mobile device use. *Journal of Child and Family Studies*, 29(2), 540–552. <https://doi.org/10.1007/s10826-019-01618-2>
- Foerde, K. (2016). Technology and cognitive control: The costs and benefits of media multitasking. *Annals of the New York Academy of Sciences*, 1369(1), 92–100. <https://doi.org/10.1111/nyas.13042>
- Gomez, R., Aguilar, J., & Garcia, M. (2020). Structured routines and children's task persistence in early learning environments. *Early Education and Development*, 31(7), 1034–1049. <https://doi.org/10.1080/10409289.2020.1716282>
- Hinkley, T. (2019). Associations of screen time, physical activity and sleep with cognitive development in preschool children. *BMJ Open*, 9(1), e026888. <https://doi.org/10.1136/bmjopen-2018-026888>
- Horowitz-Kraus, T., & Hutton, J. S. (2015). Brain connectivity in children is altered by increased screen time. *JAMA Pediatrics*, 169(11), 1062–1068. <https://doi.org/10.1001/jamapediatrics.2015.1668>
- Hutton, J. S. (2020). Associations between screen-based media use and brain white matter integrity in preschool-aged children. *JAMA Pediatrics*, 174(1), e193869. <https://doi.org/10.1001/jamapediatrics.2019.3869>
- Kucirkova, N. (2017). Digital personalization in early childhood: Impact on learning and development. *Computers in Human Behavior*, 70, 703–714. <https://doi.org/10.1016/j.chb.2016.12.013>
- Lillard, A. S. (2011). The immediate impact of different types of television on young children's executive function. *Pediatrics*, 128(4), 644–649. <https://doi.org/10.1542/peds.2010-1919>
- Linebarger, D. L. (2004). Summative evaluation of Between the Lions: A preschool reading television series. *Journal of Educational Psychology*, 96(2), 297–308. <https://doi.org/10.1037/0022-0663.96.2.297>
- Lissak, G. (2022). Adverse physiological and psychological effects of screen time on children and adolescents: Literature review and case study. *Environmental Research*, 204, 111984. <https://doi.org/10.1016/j.envres.2021.111984>
- Madigan, S. (2019). Association between screen time and children's performance on a developmental screening test. *JAMA Pediatrics*, 173(3), 244–250. <https://doi.org/10.1001/jamapediatrics.2018.5056>
- Mammadov, S. (2020). The effect of step-by-step instruction on children's task completion skills in the presence of distractions. *Journal of Educational Research*, 113(6), 449–458. <https://doi.org/10.1080/00220671.2020.1753160>
- Marsh, J. (2019). Young children's play in online virtual worlds. *Journal of Early Childhood Research*, 17(2), 99–113. <https://doi.org/10.1177/1476718X19832980>
- Pagani, L. S. (2013). Prospective associations between television in early childhood and academic, psychosocial, and physical well-being in middle childhood. *Developmental Psychology*, 49(8), 1324–1335. <https://doi.org/10.1037/a0028838>



- Radesky, J. S., & Hiniker, A. (2021). Managing screen time in early childhood: Strategies and challenges. *Child Development Perspectives*, 15(3), 155–161. <https://doi.org/10.1111/cdep.12405>
- Radesky, J. S., Schumacher, J., & Zuckerman, B. (2016). Mobile and interactive media use by young children: The good, the bad, and the unknown. *Pediatrics*, 135(1), 1–3. <https://doi.org/10.1542/peds.2014-2251>
- Rideout, V. (2017). *The Common Sense census: Media use by kids age zero to eight*. Common Sense Media. <https://www.commonsensemedia.org/research/the-common-sense-census-media-use-by-kids-age-zero-to-eight-2017>
- Rosen, L. D. (2013). The distracted student mind—Enhancing its focus and attention. *Phi Delta Kappan*, 95(2), 22–27. <https://doi.org/10.1177/003172171309500205>
- Tamana, S. K. (2019). Screen-time is associated with inattention problems in preschoolers: Results from the CHILD birth cohort study. *PLOS ONE*, 14(4), e0213995. <https://doi.org/10.1371/journal.pone.0213995>
- Tandon, P. S., Zhou, C., Lozano, P., & Christakis, D. A. (2021). Preschool-aged children’s television viewing and subsequent bullying involvement in school. *Journal of Developmental & Behavioral Pediatrics*, 42(1), 46–53. <https://doi.org/10.1097/DBP.0000000000000871>
- UNICEF. (2019). *Growing up in a connected world: UNICEF report on children’s media use*. <https://www.unicef.org>
- Uncapher, M. R., & Wagner, A. D. (2015). Media multitasking and memory: Differences in working memory and long-term memory. *Psychonomic Bulletin & Review*, 22(4), 1091–1098. <https://doi.org/10.3758/s13423-014-0763-y>
- Walsh, J. J. (2020). Associations between screen time and cognitive development in preschoolers. *JAMA Pediatrics*, 174(1), e193962. <https://doi.org/10.1001/jamapediatrics.2019.3962>
- Wu, C. S. T. (2022). Screen media exposure and child development in the digital age. *Journal of Child Psychology and Psychiatry*, 63(5), 497–510. <https://doi.org/10.1111/jcpp.13482>



Research in Social Sciences

Vol. 8, No. 5, pp. 43-50

2025

DOI: 10.53935/2641-5305.v8i5.486

■Corresponding Author: Mary Jan Monteza

Email: maryjanmonteza@gmail.com

Copyright:

© 2025 by the authors. This article is an open access article distributed under the terms and conditions of the Creative Commons Attribution (CC BY) license (<https://creativecommons.org/licenses/by/4.0/>).