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Screen Time and Preschoolers' Acquisition of Social Skills in Public Childcare Centres in Obio/Akpor Local Government Area of Rivers State, Nigeria

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Abstract

The modern preschooler navigates a bifurcated environment in which face-to-face socialization is increasingly influenced, and sometimes displaced, by digital content. This paper investigated the relationship between screen time and preschoolers' acquisition of social skills in public early childcare centers in Obio/Akpor Local Government Area of Rivers State, Nigeria. A correlational research design was adopted for the study. The study was guided by two research questions and two hypotheses. The population of the study was 4,523 preschoolers in Obio/Akpor Local Government Area of Rivers State, Nigeria. The study used a sample of 452 preschoolers, representing 10% of the target population. A simple random sampling technique was used to draw the sample. An instrument designed by the researchers and titled Screen-Time and Preschoolers' Acquisition of Social Skills Checklist (STPASS) was used to elicit responses from the respondents. Two experts in Early Childhood Education validated the instrument. Test-retest was used to assess the reliability of the instrument, yielding a coefficient of 0.82. The data generated in the study were analyzed using the Pearson Product Moment Correlation Coefficient (PPMC). The findings of the study showed that there is a weak positive relationship between interactive and passive screen time and preschoolers' acquisition of empathy and patience in public childcare centers in Obio/Akpor Local Government Area of Rivers State, Nigeria. The paper recommended that caregivers and early childhood educators in public childcare centers in Obio/Akpor Local Government Area of Rivers State, Nigeria, should intentionally incorporate well-designed interactive screen-time activities into the daily learning routines of preschoolers. Digital tools and apps that promote shared play, communication, and emotional recognition can enhance the acquisition of empathic skills. The choice of these instruments should be determined by their capacity to develop collaboration, turn-taking, and emotional awareness in young children.

Keywords: Screentime, Social Skills, Interactive Screen-Time, Passive Screen-Time.

Introduction

Social skills in preschoolers are core skills that form the basis for successful interaction and meaningful involvement with peers, caregivers and educators. Such skills include cooperation, turn-taking, dispute resolution, emotional management, communication, and awareness of social cues such as facial expressions, and body language. Early childhood social competency is important for school preparedness, peer acceptability, and later mental health consequences. Public preschools in Obio/Akpor Local Government Area of Rivers State, Nigeria, are mostly state-run and cater for children from urban and peri-urban regions. In these schools, learners are regularly exposed to group-based environments that feature structured play activities, story times, teacher-led activities and free play zones. In such environments, toddlers routinely practice necessary social skills, learn and develop turn-taking abilities during circle time, exchange resources at craft tables, negotiate roles in pretend play, and respond to peers' emotions. These little experiences build up abilities like self-control, cooperation, empathy and patience. Educators have also noted that children with superior social skills move into formal schooling more easily, adjust better to routines and have fewer behaviour concerns.

Social skills are more than just developmental milestones. They are a type of social capital, especially for youngsters who can empathise with their peers, making them more likely to be included in social play. Those who display patience and impulse control are assigned responsibilities and group assignments. Conversely, weaknesses in these behaviours such as impatience, unwillingness to share or lack of perspective-taking can lead to peer rejection, and repeated remedial input from teachers. This in turn, may negatively affect a child's confidence and willingness to participate. In daycare centres, children receive feedback loops through their interactions with peers and adults. Children absorb routines, learn how to respond in socially acceptable ways, and modify their behaviour accordingly. This deeper perspective opens the door to a more profound investigation of patience and empathy.

Patience in preschool is the ability to sit quietly, suffer little delays or frustrations, and exercise self-control over time in early life. Children in public childcare centres within the Obio/Akpor Local Government Area of Rivers State, Nigeria, are often faced with situations that require them to be patient. Such as waiting for their turn during group activities such as circle time or snack distribution, queuing, waiting during transitions from play areas or waiting while the teacher calls on others. In these structured environments, the ability to wait without interruption, such as throwing a tantrum or jumping the queue, is crucial. Patience is gained by preschoolers through repeated, scaffolded experiences. When a teacher asks children to queue quietly, they learn by modelling and reinforcement. Children learn the social rule: wait, because it is good; it is right. Observational learning is also important. If a child waits in silence, others will see it and do it. Patience is about controlling impulses. The child who restrains a want to take a toy and instead waits his turn is showing better self-regulation. Importantly, social interactions build the patience of a child. Peers take turns to reinforce the behaviour reciprocally. For instance, in pretend play sessions where children share one prop such as a toy guitar, the negotiation of time and turn-taking becomes part of the play script. As the youngster rushes or refuses to wait, others pull away, or adults step in, directing the group to equitable sharing. Children learn about the social and emotional importance of waiting through repeated interactions.

Preschoolers' empathy is the ability to recognise, understand, and respond compassionately to others' feelings and points of view. It involves both emotional empathy, experiencing others' feelings and knowing that others may have different thoughts or feelings. Between the ages of 3 and 5, children begin to show little signs of empathy, such as soothing a sobbing friend, giving up a toy, or helping someone they think needs aid. Pre-schoolers in public daycare centres in Obio/Akpor Local Government Area of Rivers State, Nigeria, often meet their peers weeping because they fell, sad because they lost a game or excited because of a new item. The group context and teacher-led reflection times such as circle time discussions about feelings, help children describe emotions they observe, such as: Grace was sad because her water can got broken. Noticing these clues helps toddlers develop empathy. Teachers often elicit answers to questions such as, how can we make Grace feel better? As the youngsters grow, they start to instinctively provide comforting words, tissues, or offer comfort or play with classmates who are upset.

Screen time refers to the duration an individual, particularly a child, spends interacting with devices that feature screens such as televisions, computers, tablets, smartphones, and gaming consoles. In early childhood education contexts, screen time has become an increasingly scrutinised concept due to its potential implications for children's cognitive, emotional, social, and behavioural development (AAP, 2016; Domoff et al., 2019). As digital technologies become more embedded in daily life, including in homes and public childcare centres, understanding screen time as both a developmental tool, and potential risk factor is crucial.

Screen time involves both content and context. Content is what the child is seeing or engaging with, whether it be an educational program, an entertainment video or an interactive learning app. The screen use context includes where, when, how often, and with whom it is utilised (Livingstone & Helsper, 2007). These characteristics are important for the developmental consequences of exposure to screens. For example, instructional content viewed with a carer who asks the child questions or elaborates on the information tends to provide more favorable learning results than viewing it alone or passively (Radesky & Christakis, 2016). Screen time is typically divided into passive and engaging. Passive screen time is defined as observing without significant interaction, such as watching television, whereas interactive screen time is defined as actively participating with content, such as playing educational games or video chatting (Strasburger, 2011). Research indicates that deliberate and restricted usage of interactive screen activities could promote early literacy and problem-solving skills in children. However, high levels of passive screen time have been correlated with decreased attention span, decreased face-to-face interaction, and delayed learning of social-emotional skills (Christakis et al., 2004; Zimmerman & Christakis, 2007).

Most importantly, screen use can substitute for proper developmental experiences in early life. The initial years of infancy are defined by rapid brain development. Social interactions, and physical play are critical for cerebral growth and social skills development. Excessive screen time, particularly when it is unsupervised, can reduce opportunities for children to engage in imaginative play, physical activity, and peer contact – all of which are important for developing skills such as patience, empathy, and emotional control (WHO, 2019). Furthermore, screen overexposure has been associated with behavioural difficulties including greater levels of hostility, irritability and poor impulse control in preschool children (Pagani et al., 2010). For instance, in Nigeria, screen time is already part of the early learning environment in public childcare centres, such as Obio/Akpor Local Government Area in Rivers State. Often, the usage of screen time is driven by infrastructure problems, gaps in carer training, and the availability of materials. Many may be more prone to passive screen time, as interactive tools or structured digital learning programs are not accessible. This points to the importance of stakeholders such as caretakers, school heads, and policymakers monitoring not just the amount of screen time but also the nature and purpose of screen time in early childhood settings (Okeke et al., 2022).

Interactive screen time is the kind of digital activity that requires active engagement, such as educational programs, touch-screen games or video-chat interactions that give feedback loops, and cognitive hurdles. In Obio/Akpor Local Government Area of Rivers State, Nigeria, childcare centres employ tablets or educational software frequently in small groups for interactive screen time where children can touch, answer or work together with their peers or teachers. Well-structured and scaffolded interactive screen use will not negatively affect (may even facilitate) social skill development, at least in comparison to passive use (Samuel, 2021). For instance, digital games that encourage cooperative play, turn-taking, and collaborative problem solving can teach collaboration, frustration tolerance, and resilience. The latter is closely related to patience. In group circumstances, when two or more children use the same equipment or software, they are practicing negotiating control, waiting for turns, and communicating, paralleling the same social traits observed in face-to-face play. Interactive media could also teach empathy to young people by having them look after virtual characters responding to emotional situations or working together in story settings. But it needs guidance: even interactive games can isolate children and prevent joint attention or shared reflection without instructor supervision or interaction. Indeed, it has been shown that touch-screen games decrease children's responses to adult joint attention cues when they are engaged in solitary tablet play.

Passive screen time refers to media consumption where children watch without active engagement, such as TV programs, cartoons, or pre-recorded videos. In the Nigerian context, public childcare centres may afford occasional group viewing sessions, for example, showing educational videos, but often such content remains unaccompanied by interaction or discussion. Robert (2023) maintained that passive screen time is inversely associated with social skills such as compliance, cooperation, patience, and empathy. The cross-sectional study of preschool children found that greater television or DVD viewing was negatively associated with compliant skills such as following rules, waiting, and cooperating, but interactive screen device usage (games, tablets) showed no such association. The displacement hypothesis proposes that time spent passively watching media displaces opportunities for social interaction and active play, which are both critical for learning social norms, waiting, turn-taking, and perspective taking. Specifically for patience, passive screen use tends to reduce real-world experiences where children must wait. If children repeatedly use screens in isolation, they may become accustomed to immediate sensory input and entertainment, reducing their tolerance for delay. They may expect constant stimulation, making it harder to wait calmly during group rituals, line-ups, or teacher-led transitions in the childcare centre.

The study was anchored on the Social Learning Theory of Albert Bandura. This theory was developed in 1977 by Albert Bandura a Canadian-American psychologist who lived between 1925 and 2021. The theory argues that learning occurs within a social context, and that much of human behaviour is acquired through observational learning, imitation, and modelling. According to Bandura, children learn not only through direct experience, but also by watching others, whether those "others" are real-life individuals or characters on a screen. The core principles of Social Learning Theory are attention, retention, reproduction, and motivation. These are highly relevant to how preschoolers engage with screen-based content and develop social behaviours such as patience, and empathy. For instance, when a preschooler watches a cartoon character display kind, cooperative, or patient behaviour, and this character is positively rewarded, the child is more likely to retain and imitate such behaviour in real-life social contexts. Conversely, exposure to aggressive or antisocial behaviour on screen may lead to the replication of undesirable behaviours in peer interactions, especially when such behaviour is portrayed as acceptable or rewarded in media content.

In recent years, screen time has become an increasingly prominent feature in the daily lives of preschool children, both at home and within early childhood education centres. While digital devices offer potential educational benefits, especially through interactive content, concerns have grown regarding their impact on the social development of young children. Social skills such as patience and empathy are foundational for healthy peer relationships, emotional regulation, and school readiness, yet evidence suggests that excessive or unstructured screen time may hinder the acquisition of these vital competencies. In Obio/Akpor Local Government Area of Rivers State, Nigeria, public childcare centres are experiencing a gradual integration of digital media into early learning routines. However, this integration often occurs in the absence of structured guidelines, adequate caregiver training, or a clear understanding of how different forms of screen exposure, such as interactive versus passive, influence preschoolers' social behaviour. While interactive screen use, when guided, may foster collaboration and empathy, passive screen time such as unmoderated television viewing, may limit real-life social interactions, reduce opportunities for shared play, and displace valuable face-to-face communication.

Despite the growing use of screen-based tools in Nigerian preschool settings, empirical studies focusing on how screen time affects the development of social skills like patience, and empathy among preschoolers in Obio/Akpor Local Government Area Rivers State, Nigeria, remain scarce. This gap in research raises critical questions about the appropriateness, duration, and content of screen use in these early childhood centres. Without a clear understanding of the relationship between screen time, and social development, caregivers may unknowingly adopt practices that impair rather than enhance children's social readiness for primary education. Therefore, this study seeks to examine the relationship between screen time and preschoolers' acquisition of social skills in public childcare centres in Obio/Akpor Local Government Area of Rivers State, Nigeria.

The general purpose of the paper is to investigate the relationship between screen time and preschoolers' acquisition of social skills in public childcare centres in Obio/Akpor Local Government Area of Rivers State, Nigeria. Specifically, the study sought to:

1. Ascertain the relationship between interactive screen-time, and preschoolers' acquisition of empathy in public childcare centres in Obio/Akpor Local Government Area of Rivers State, Nigeria.
2. Determine the relationship between passive screen-time, and preschoolers' acquisition of patience in public childcare centres in Obio/Akpor Local Government Area of Rivers State, Nigeria.

The following research questions will guide the paper:

1. What is the relationship between interactive screen-time and preschoolers' acquisition of empathy in public childcare centres in Obio/Akpor Local Government Area of Rivers State, Nigeria?
2. To what extent does passive screen-time relate to preschoolers' acquisition of patience in public childcare centres in Obio/Akpor Local Government Area of Rivers State, Nigeria?

The following hypotheses will guide the paper:

H01: There is no significant relationship between interactive screen-time, and preschoolers' acquisition of empathy in public childcare centres in Obio/Akpor Local Government Area of Rivers State, Nigeria.

H02: Passive screen-time has no significant relationship with preschoolers' acquisition of patience in public childcare centres in Obio/Akpor Local Government Area of Rivers State, Nigeria.

Methodology

The study adopted a correlational research design. The study population comprised 4,523 preschoolers in Obio/Akpor Local Government Area, Rivers State, Nigeria. The study sample comprised 452 preschoolers, representing 10% of the target population, selected using simple random sampling. An instrument designed by the researchers, titled Screen-Time and Preschoolers' Acquisition of Social Skills Checklist (STPASS), was used to elicit responses from respondents. Two experts in Early Childhood Education validated the instrument. Test-retest was used to assess the instrument's reliability, yielding a coefficient of 0.82. The data generated in the study were analyzed using the Pearson Product-Moment Correlation Coefficient (PPMC).

Results

Table 1: Correlation between interactive screen-time and preschoolers' acquisition of empathy

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		Interactive screen-time	Preschoolers' acquisition of empathy
Interactive screen-time	Pearson Correlation	1	.121**
	Sig. (2-tailed)		.003
	N	452	452
Preschoolers' acquisition of empathy	Pearson Correlation	.121**	1
	Sig. (2-tailed)	.003	

**Significant $p < 0.05$

Table 1 above revealed Pearson correlation on the relationship between interactive screen-time, and preschoolers' acquisition of empathy in public childcare centres in Obio/Akpor Local Government Area of Rivers State, Nigeria. The Pearson correlation coefficient (r) for the relationship between interactive screen-time, and preschoolers' acquisition of empathy is .121. This indicates a weak positive correlation, suggesting that as interactive screen-time slightly increases, preschoolers' acquisition of empathy. The p-value for this correlation is 0.003, which is less than the 0.05 significance level. This means the relationship is statistically significant. Therefore, the null hypothesis is rejected, indicating that there is a weak positive relationship between interactive screen-time and preschoolers' acquisition of empathy in public childcare centres in Obio/Akpor Local Government Area of Rivers State, Nigeria.

Table 2: Correlation between passive screen-time and preschoolers' acquisition of patience

		Passive screen-time	Preschoolers' acquisition of patience
Passive screen-time	Pearson Correlation	1	.177**
	Sig. (2-tailed)		.012
	N	452	452
Preschoolers' acquisition of patience	Pearson Correlation	.177**	1
	Sig. (2-tailed)	.012	

Significant $p < 0.05$

Table 2 above presents the Pearson correlation between passive screen-time and preschoolers' acquisition of patience in public childcare centers in Obio/Akpor Local Government Area of Rivers State, Nigeria. The Pearson correlation coefficient (r) for this relationship is .177. This indicates a weak positive correlation, suggesting that passive screen-time slightly increases preschoolers' acquisition of patience. The p-value for this correlation is 0.012, which is less than the 0.05 significance level. This means the relationship is statistically significant. Therefore, the null hypothesis is rejected, indicating that there is a weak positive relationship between passive screen-time and preschoolers' acquisition of patience in public childcare centers in Obio/Akpor Local Government Area of Rivers State, Nigeria.

Discussion

The findings in hypothesis one shows the correlation coefficient (r) for the relationship between interactive screen-time, and preschoolers' acquisition of empathy is .121. This indicates a weak positive correlation, suggesting that as interactive screen-time slightly increases, preschoolers' acquisition of empathy. The p-value for this correlation is 0.003, which is less than the 0.05 significance level. This means the relationship is statistically significant. Therefore, the null hypothesis is rejected, indicating that there is a weak positive relationship between interactive screen-time and preschoolers' acquisition of empathy in public childcare centres in Obio/Akpor Local Government Area of Rivers State, Nigeria. The study consolidated the previous research carried out by Samuel (2021), who found that interactive screen use, when thoughtfully designed and scaffolded, does not harm, and may even support social skills development, especially when compared to passive use. For instance, digital games that encourage cooperative play such as turn-taking, joint problem solving, can promote teamwork, frustration tolerance, and resilience, the latter being closely linked to patience. In group settings where two or more children interact with the same device or app, they

practice negotiating control, waiting for turns, and communicating, paralleling those same social behaviours seen in face-to-face play.

The findings in hypothesis two show the correlation coefficient (r) for the relationship between passive screen-time and preschoolers' acquisition of patience is .177. This indicates a weak positive correlation, suggesting that passive screen-time slightly increases preschoolers' acquisition of patience. The p -value for this correlation is 0.012, which is less than the 0.05 significance level. This means the relationship is statistically significant. Therefore, the null hypothesis is rejected, indicating that there is a weak positive relationship between passive screen time in relation to preschoolers' acquisition of patience in public childcare centres in Obio/Akpor Local Government Area of Rivers State, Nigeria. The finding is in tandem with the opinion of Robert (2023), who stated that passive screen time is inversely associated with social skills such as compliance, cooperation, patience, and empathy.

Conclusion

This study examined screen time and preschoolers' acquisition of social skills in public childcare centres in Obio/Akpor Local Government Area of Rivers State, Nigeria. The findings indicate that while both forms of screen time show only weak positive relationships with social skill acquisition, the statistically significant associations underscore the need for moderation, structure, and thoughtful integration of screen-based tools in early childhood education. Caregivers and educators must be mindful of the type of screen content, duration of exposure, and presence of guided interaction, as these factors influence whether screen time has a constructive or detrimental influence on children's social development. Therefore, rather than a blanket rejection or acceptance of screen time, what is needed is a strategic and intentional approach to its application in preschool settings to support, rather than replace essential human interaction and play.

Recommendations

Based on the revelation of the findings of the study, the following recommendations are made to enhance screen-time and the acquisition of social skills in public childcare centres in Obio/Akpor Local Government Areas of Rivers State, Nigeria:

1. Caregivers and early childhood educators in public childcare centres in Obio/Akpor Local Government Area Rivers State, Nigeria, should intentionally incorporate well-designed interactive screen-time activities into the daily learning routines of preschoolers. Digital tools and apps that promote shared play, communication, and emotional recognition can be used to enhance empathy development. These tools should be selected based on their potential to foster collaboration, turn-taking, and emotional awareness among children.
2. While passive screen-time has shown a slight positive correlation with the development of patience, there remains a need for its careful regulation. Caregivers and parents should ensure that passive content, such as educational videos or storytelling programs, is age-appropriate and includes themes that model patience and self-regulation. Screen exposure should be timed and supplemented with reflective discussions or follow-up activities that reinforce the lessons conveyed during viewing.

References

- American Academy of Pediatrics. (2016). Media and young minds. *Pediatrics*, 138(5), e20162591. <https://doi.org/10.1542/peds.2016-2591>
- Christakis, D. A., Zimmerman, F. J., DiGiuseppe, D. L., & McCarty, C. A. (2004). Early television exposure and subsequent attentional problems in children. *Pediatrics*, 113(4), 708–713. <https://doi.org/10.1542/peds.113.4.708>
- Domoff, S. E., Harrison, K., Gearhardt, A. N., Gentile, D. A., Lumeng, J. C., & Miller, A. L. (2019). Development and validation of the Problematic Media Use Measure: A parent report measure of screen media "addiction" in children. *Psychology of Popular Media Culture*, 8(1), 2–11. <https://doi.org/10.1037/ppm0000163>
- Livingstone, S., & Helsper, E. J. (2007). Gradations in digital inclusion: Children, young people and the digital divide. *New Media & Society*, 9(4), 671–696. <https://doi.org/10.1177/1461444807080335>
- Okeke, C. I. O., Ede, M. O., & Nwachukwu, C. O. (2022). Digital learning environments in Nigerian early childhood education: Potentials and concerns. *African Educational Research Journal*, 10(1), 50–60.
- Pagani, L. S., Fitzpatrick, C., Barnett, T. A., & Dubow, E. (2010). Prospective associations between early childhood television exposure and academic, psychosocial, and physical well-being by middle childhood. *Archives of Pediatrics & Adolescent Medicine*, 164(5), 425–431. <https://doi.org/10.1001/archpediatrics.2010.50>
- Radesky, J. S., & Christakis, D. A. (2016). Increased screen time: Implications for early childhood development and behaviour. *JAMA Pediatrics*, 170(5), 397–398. <https://doi.org/10.1001/jamapediatrics.2015.4265>

- Strasburger, V. C. (2011). Children, adolescents, obesity, and the media. *Pediatrics*, 128(1), 201–208. <https://doi.org/10.1542/peds.2011-1066>
- World Health Organization. (2019). *Guidelines on physical activity, sedentary behaviour and sleep for children under 5 years of age*. <https://www.who.int/publications/i/item/9789241550536>
- Zimmerman, F. J., & Christakis, D. A. (2007). Associations between content types of early media exposure and subsequent attentional problems. *Pediatrics*, 120(5), 986–992. <https://doi.org/10.1542/peds.2006-3322>