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THE PREPAREDNESS GAP: EXAMINING CHALLENGES FACING MALAYSIAN KINDERGARTEN ENTRANTS IN THE DIGITAL AGE

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Abstract:

This study investigates the growing concern regarding the "preparedness gap" among Malaysian children entering kindergarten in the digital age. It examines the challenges educators face, as an increasing number of students lack foundational skills in manners, focus, study habits, and social interaction deemed crucial for a successful transition to formal schooling. This study identifies excessive exposure to digital gadgets and limited opportunities for real-world social engagement as primary contributing factors. The effects of these deficits on classroom dynamics, teaching methodologies, and overall learning outcomes were assessed. This research synthesizes observations on declining social skills, shortened attention spans, and dependence on technology, impacting the traditional kindergarten environment. Furthermore, this paper reviews the existing literature on early childhood development and digital media consumption, emphasizing the need for a balanced approach that integrates technology responsibly. In response, recommendations are proposed to stakeholders, including parents, educators, and policymakers to mitigate the negative impacts of technology and foster holistic development. These include promoting responsible screen time, encouraging face-to-face interactions, strengthening parental involvement, and implementing early intervention programmes. Ultimately, this study advocates a collaborative effort to ensure that Malaysian children are adequately prepared for kindergarten, enabling

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them to thrive in the digital age while upholding essential social and cognitive skills.

Keywords:

Attention Span, Holistic Development And School Readiness.

Introduction

The term “iPad kid” has become a widespread online label for members of Generation Z and Alpha who are heavily dependent on digital devices and struggle to navigate childhood without screens. Bechtold (2023) attributes the rise of “iPad kids” to parents’ screen addictions and a lack of effective parenting skills, noting that many adults mistakenly assume children can manage technology and emotions in the same way they do. However, this overlooks the fact that children fundamentally require imaginative play, face-to-face interaction, and guided emotional regulation to develop resilience, creativity, and social competence. Excessive reliance on screens can disrupt these developmental needs, leading to impaired social skills, attention deficits, and reduced frustration tolerance, while also perpetuating cycles of tech dependence across generations. This trend reflects broader societal challenges, including work-life imbalances and the normalization of digital convenience, which together risk undermining children’s ability to thrive independently without intentional efforts to foster real-world engagement and emotional growth.

The early years of a child's life are critical for cognitive, social, and emotional development, laying the groundwork for future academic success (Habibi Rahmatullah, et al,2021. in Malik Developmental Stages of Social Emotional Development in Children.) Kindergarten serves as a vital transition point, providing structured learning experiences and opportunities for socialization. However, according to Azam Ghazali (2023), anecdotal evidence and educator observations suggest that an increasing number of Malaysian children are entering kindergarten without the expected foundational skills or preparedness. This "preparedness gap" encompasses deficits in areas such as basic manners, attention span, independent learning skills, and social interaction abilities. Several factors contribute to this issue, including the pervasive influence of digital gadgets and the changing family dynamics. This study aims to examine the scope of the problem, explore its underlying causes, and propose potential solutions to better prepare Malaysian children for a successful kindergarten experience.

Literature Review

Declines in Social Skills and Manners

Traditional Malaysian values emphasise respect and politeness. However, increased screen time can hinder social skill development (Rahim & Din, 2018; Uhls et al., 2014). Research consistently indicates a negative correlation between excessive digital media use and young children's social development. Both Malaysian (Rahim & Din, 2018; Azam Ghazali, 2023) and international studies (Uhls et al., 2014; Neumann, 2023) show that increased screen time diminishes face-to-face interactions, subsequently hindering the growth of essential social skills such as empathy, communication, and conflict resolution. This phenomenon can negatively affect the development of crucial social skills, as highlighted by Rahim and Din

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(2018) and Uhls et al. (2014). In addition, excessive screen time limits opportunities for face-to-face interaction, hindering the development of effective communication, empathy, and conflict-resolution skills. These skills are honed through real-life interactions, where children learn to interpret nonverbal cues, understand different perspectives, and navigate social situations. Over-reliance on digital devices can lead to a communication gap where children may struggle to articulate themselves clearly, understand the emotions of others, and healthily resolve conflicts. This can have enduring consequences for personal relationships, academic performance, and overall well-being.

Attention and Focus Deficits

The fast-paced nature of digital games can negatively affect attention spans (Christakis, 2009; Swing et al., 2010), inhibiting their ability to engage in structured learning activities. The rapid, reward-driven nature of digital games and apps is linked to shorter attention spans and difficulties with sustained focus (Christakis, 2009; Swing et al., 2010; Tadprikar, Sharma & Murthy, 2024). These attention deficits hinder children's ability to engage in structured learning, a foundational requirement for kindergarten readiness. This is because the brain becomes accustomed to the frequent shifts in focus and the instant gratification provided by the game environment. As a result, individuals who spend significant amounts of time playing digital games may find it challenging to sustain their attention during structured learning activities, which typically require prolonged focus and delayed gratification. This can lead to difficulties in academic settings, where students are expected to engage with complex materials and complete tasks that may not offer the same level of immediate rewards as digital games. Research suggests that excessive screen time can lead to difficulties in sustaining attention, inhibiting their ability to engage in structured learning activities in kindergarten classrooms.

Dependence on Gadgets and Reduced Independent Learning

Early and frequent use of gadgets fosters dependency, reducing intrinsic motivation for exploration and self-directed learning (Gray, 2011; Lillard & Peterson, 2011). This dependency is associated with lower self-regulation and less curiosity-driven behaviour, both critical for early academic success. The ability to self-regulate and engage in self-directed learning is essential for kindergarten's success.

Early access to technological devices and gadgets can lead to an overreliance on technology, as highlighted by Gray (2011) and Lillard and Peterson (2011). This dependence can diminish the children's intrinsic motivation to engage in independent exploration and learning. Children may become accustomed to the instant gratification and entertainment provided by technology, leading to a decreased desire to actively seek knowledge and engage in self-directed learning experiences.

Furthermore, reliance on technology can hinder the development of essential skills for kindergarten success, such as self-regulation and self-directed learning. When children are constantly entertained and engaged in technology, they may have fewer opportunities to practice self-regulation, which involves managing their emotions, behaviour, and attention. In addition, they may be less likely to engage in self-directed learning, which requires them to set goals, plan their learning, and monitor their progress.

The ability to self-regulate and engage in self-directed learning is crucial for success in kindergarten and beyond. Children who can self-regulate are better able to focus on tasks, follow instructions, and manage their emotions in a classroom setting. Similarly, children who

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can engage in self-directed learning are more likely to take ownership of their education, seek new information, and persevere in the face of challenges.

Impact of Family Dynamics

Changing family structures and socioeconomic disparities exacerbate the preparedness gap. Limited parental involvement and lack of stimulating home environments are significant predictors of school readiness delays (Dunst et al., 2007; McLoyd, 1998; Dewi et al., 2022). The evolving dynamics of family structures, often characterised by single-parent households or limited parental presence due to work commitments, can inadvertently create an environment in which children may not receive adequate stimulation and support crucial for their optimal development. This lack of enriching interaction and guidance during formative years can lead to developmental delays in various domains, including cognitive, language, and social-emotional skills, as highlighted by Dunst et al. (2007) and McLoyd (1998). Consequently, these children may enter school without the foundational skills necessary for academic learning and social interaction, hindering their ability to successfully engage in the classroom and maintain the same pace as their peers. This "school readiness gap" can have cascading effects on students' educational journey and future opportunities, potentially leading to lower academic achievement, grade repetition, and an increased likelihood of dropping out of school.

The lack of school readiness stems from several factors. Limited parental involvement in early learning activities such as reading, singing, and playing with their children can significantly impact cognitive and language development (Dewi et al, 2022). Additionally, a lack of stimulating home environments, characterised by limited access to books, toys, and educational materials, can deprive children of crucial learning experiences during their formative years. These environmental factors, coupled with potential developmental delays, can create a significant disadvantage for children as they enter school.

Furthermore, socioeconomic disparities can exacerbate the gap in school readiness. Children from low-income families may have limited access to quality early childhood education programs that can provide essential learning experiences and support school readiness. Additionally, families facing economic hardship may experience stress and instability, which can negatively impact parenting practices and the home environment. These factors can create a cycle of disadvantage, whereby children from low-income backgrounds are less likely to be prepared for school and subsequently face greater challenges in their educational journey.

Theoretical Frameworks and Related Theories

Bronfenbrenner's Ecological Systems Theory

This theory posits that a child's development is influenced by multiple environmental systems (microsystem, mesosystem, ecosystem, macrosystem). The preparedness gap can be understood as the result of interactions between children's immediate environments (home, school), broader societal influences (technology, culture), and policy contexts (Bronfenbrenner, 1979).

Application:

Excessive screen time (microsystem) and evolving family dynamics (mesosystem) interact to shape developmental outcomes.

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Vygotsky's Sociocultural Theory

Vygotsky emphasises the role of social interaction and cultural tools in cognitive development. The reduction in face-to-face interaction due to digital media limits opportunities for guided participation and scaffolding (Vygotsky, 1978).

Application:

The lack of real-world social engagement impedes the development of higher-order thinking and self-regulation.

School Readiness Framework

This framework (Duncan et al., 2007; Ready, 2010) identifies foundational skills- cognitive, social-emotional, and behavioural-as prerequisites for successful school entry. The preparedness gap reflects disparities in these domains, often exacerbated by digital exposure and socioeconomic factors.

Study/Framework	Key Findings
Rahim & Din (2018); Uhls et al. (2014)	Excessive screen time reduces opportunities for social skill development, empathy, and conflict resolution.
Christakis (2009); Swing et al. (2010)	Fast-paced digital media is linked to shorter attention spans and poorer focus in structured learning environments.
Gray (2011); Lillard & Peterson (2011)	Early gadget use fosters dependence, reduces intrinsic motivation, and impairs self-directed learning.
Dunst et al. (2007); Dewi et al. (2022)	Family dynamics and socioeconomic status significantly impact school readiness and developmental outcomes.
Tadprikar, Sharma & Murthy (2024)	International guidelines now strictly limit screen time for young children to support healthy development.
Bronfenbrenner (1979)	Child development is shaped by interactions across multiple environmental systems.
Vygotsky (1978)	Social interaction and cultural tools are essential for cognitive and self-regulatory development.
Duncan et al. (2007); Ready (2010)	School readiness gaps persist and are linked to later academic achievement disparities.

Table 1: Key Findings from Past Studies

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Theory/Framework	Main Points	Supporting Studies (Latest)
Bronfenbrenner's Ecological Theory	Child development is shaped by nested environmental systems; the digital age alters the microsystem.	Dewi et al., 2022; Tadprikar et al., 2024
Vygotsky's Sociocultural Theory	Social interaction and cultural tools (now digital) are key to cognitive development.	Rahim & Din, 2018; Neumann, 2023
School Readiness Framework	Foundational skills (cognitive, social-emotional, behavioural) are prerequisites for success.	Duncan et al., 2007; Ready, 2010; Dewi et al., 2022
Digital Media Impact	Excessive screen time is linked to social skill deficits, attention problems, and dependency.	Neumann, 2023; Tadprikar et al., 2024
Socioeconomic Factors	Disparities in home environment and access to ECE widen the preparedness gap.	Dewi et al., 2022

Table 2: Summary of Theoretical and Empirical Findings

Discussion

The "preparedness gap," which refers to the noticeable differences in fundamental skills and abilities among children as they begin kindergarten, poses substantial challenges for educators (Ready, 2010). This disparity means that teachers are increasingly required to tailor their instruction to accommodate the diverse needs of students, who display a broad spectrum of pre-literacy, numeracy, and social-emotional competencies (сложилось,2013). These foundational skills encompass a range of abilities, including letter and number recognition, basic counting, fine motor writing skills, and the social and emotional skills necessary for classroom interaction and learning.

Children who enter kindergarten without these essential foundational skills are at higher risk of encountering academic difficulties. This can lead to frustration, disengagement from the learning process, and, ultimately, long-term achievement gaps compared to their better-prepared peers (Duncan et al., 2007). These gaps can persist throughout their educational journey and significantly impact future opportunities.

Addressing the multifaceted issue of the preparedness gap requires a collaborative and comprehensive approach that involves active participation from parents, dedicated efforts from educators, and informed policy decisions at all levels of the education system (Epstein, 2011; Shonkoff & Phillips, 2000). Parents play a crucial role in their children's early development by stimulating home environments, reading to their children, and engaging them in activities

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that promote learning. Educators need to be equipped with knowledge and resources to identify and address the diverse needs of their students, while policymakers need to ensure that adequate funding and support are available for early childhood education programs (Scott, 2021).

In addition to these efforts, it is important to recognise the role of socioeconomic factors in the preparedness gap. Children from disadvantaged backgrounds are often at a greater risk of starting school without the necessary foundational skills because of limited access to quality early childhood education programs and other resources. Therefore, addressing the preparedness gap requires addressing broader issues of social inequality and ensuring that all children have the opportunity to reach their full potential.

Recommendations

One of the recommendations is to promote responsible technology use, whereby parents should be strict with their children's screen time. The Indian Psychiatry Society (IPS) stresses the role of parents to acknowledge the harms of screen time and start to implement measures that encourage a more balanced approach to technology use. The IPS recommends that parents not only monitor the duration of screen time but also scrutinise the content consumed by their children. This perspective resonates with the broader narrative that emphasises the importance of qualitative aspects of screen time, rather than solely focusing on quantitative measures.

Furthermore, engaging children in alternative activities that promote physical, social, and cognitive development is paramount. Alternative activities suggested by experts include reading, singing, reciting poems, and arts and crafts activities (Raj et al, 2022). These activities foster essential skills while simultaneously reducing reliance on screens. Parents are encouraged to set a daily routine that includes a variety of non-screen-related activities, thereby providing children with diverse experiences that contribute to well-rounded development. This multifaceted approach not only mitigates the potential negative impacts of excessive screen time but also enhances children's engagement with their environment and peers.

In addition to setting limits on screen time, fostering open communication about technology use is crucial. Parents should initiate dialogues with their children about the potential risks associated with excessive screen exposure, including issues related to physical health, mental well-being, and social interactions. By openly discussing these topics, parents can help children understand the importance of moderating their technology use and making informed choices. This proactive strategy not only equips children with the tools to navigate their digital landscape responsibly but also strengthens the parent-child relationship through shared understanding and mutual respect.

Overall, the recommendations by Tadprikar, Sharma, and Murthy (2024) highlight a comprehensive framework for addressing screen time among children. By adhering to established guidelines from respected organisations and adopting a holistic approach to technology use, parents can play a pivotal role in ensuring that children develop healthy habits that will benefit them well into adulthood.

Nurhafani, Kurniawati, Pranoto and Nuzulia (2023) surveyed several preschools in the Patikraja sub-district, which involved parents and teachers as assessors. The result showed that the intensity of gadget use among children has a small effect on their social skills when the parents moderate the usage. The researchers further categorised three parental mediation

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tactics, such as active, restrictive and co-view mediation. These are all important aspects in involving the parents to oversee their children's gadget use.

The findings of Nurhafani et al. (2023) underscore the critical role that parental mediation plays in shaping children's social skills in the context of gadget usage. Active mediation, which involves parents discussing and engaging with their children about the content and implications of their gadget use, has been shown to foster a more nuanced understanding of social interactions among preschoolers. By facilitating conversations around media consumption, parents can help children interpret social cues and develop communication skills, thereby enhancing their overall social competence.

On the other hand, restrictive mediation, which entails setting limits on the amount and type of gadget usage, serves as a protective measure that can mitigate potential negative effects on social skills. By imposing boundaries, parents can ensure that children engage in more face-to-face interactions, which are crucial for the development of interpersonal skills. However, while restrictive mediation can be effective in reducing excessive screen time, parents need to balance restrictions with opportunities for guided social interactions, as overly stringent limits may lead to feelings of isolation or frustration among children.

Co-view mediation, where parents actively participate alongside their children during gadget use, offers a blend of both active and restrictive approaches. This tactic allows parents to contextualise the media exposure by discussing its relevance while simultaneously monitoring its impact on their children's behaviour. Sanders, Parent and Forehand (2018) mentioned the importance of parental controls that are equipped through additional settings and password protections on various devices to help parents monitor their children's screen time (as cited in Mupalla, Vuppalapati, Pulliahgaru & Sreenivasulu, 2023). Such involvement not only enhances parental awareness of the child's media consumption but also provides a platform for modelling appropriate social behaviours, thereby reinforcing the development of critical social skills.

Moreover, the study by Nurhafani et al. (2023) highlights the nuanced relationship between gadget usage and social skills development in preschool-aged children. By employing various parental mediation strategies, caregivers can significantly influence the outcomes of children's interactions with technology. As the prevalence of gadgets continues to rise in early childhood settings, parents must remain actively engaged in their children's media experiences to foster healthy social development. The study was corroborated by research done by Mupalla et. al (2023) that stresses that parents are key in screen time management within the family. Meanwhile, Raj, Zulkefli, Minhat and Ahmad (2022) claim that having trained intervention providers such as paediatric nurses and health counsellors is beneficial too in providing knowledge on screen time limits, especially when it is done face-to-face.

In conclusion, adopting alternative activities to reduce screen time is essential for promoting physical health, enhancing cognitive development, and fostering social interactions. Children get to engage in meaningful, offline experiences that support overall well-being and balance daily life. To establish and practice the new effort, Dr Nurul Firdausi Binti Hasnol Basri and Dr Adilah Binti Rahim (2024) emphasise the gradual reduction of screen time as it gives children time to shift to healthier lifestyles without causing sudden, abrupt changes. This can help to mitigate potential withdrawal symptoms among the children, such as tantrums, anxiety and irritability. A slow reduction also encourages sustainable behaviour change to ensure that

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new healthier habits are integrated effectively, eventually leading to improved physical, mental and social well-being.

Promoting Responsible Technology Use

Responsible technology use is essential for mitigating the negative impacts of excessive screen time on children's development. Parents play a pivotal role in setting clear guidelines for screen time, including establishing daily or weekly limits, designating specific times for device use, and creating tech-free zones in the household. International organisations such as the World Health Organisation (WHO) and the American Academy of Paediatrics (AAP) provide specific recommendations on screen time limits. For instance, WHO advises against screen time for children aged 0–1 years, while AAP suggests that children aged 18–24 months should only engage in video calls and that screen time for children aged 2–5 years should not exceed one hour per day, with the content being educational and non-violent (Tadprikar et al., 2024). Additionally, the Indian Psychiatry Society (IPS) emphasises parental involvement in monitoring both the duration and content of children's screen usage. This approach aligns with broader strategies that focus on qualitative aspects of screen time rather than solely quantitative measures.

Encouraging alternative activities is equally important. Outdoor play, reading age-appropriate materials, engaging in creative pursuits like drawing or painting, and participating in hobbies or extracurricular activities can foster physical, social, and cognitive development while reducing reliance on screens. Parents are encouraged to establish routines that incorporate diverse non-screen-related activities to promote holistic growth.

Media literacy education is another vital strategy. Teaching children to critically analyse media messages equips them to make informed decisions about their media consumption and understand the potential negative effects of excessive screen exposure. Open communication between parents and children about technology use further strengthens these efforts by fostering mutual understanding and respect (Nurhafani et al., 2023).

Enhancing Social Interaction Opportunities

Social interaction is crucial for children's development, particularly in building communication skills, empathy, and teamwork abilities. Organised play dates provide opportunities for children to interact with peers in informal settings such as homes or parks. Group activities like sports teams, music classes, or community clubs enable children to connect with others who share similar interests while developing teamwork skills. Community events such as festivals or fairs expose children to diverse experiences and foster community engagement. Children who possess social-emotional skills, such as self-awareness, self-management, social awareness, relationship skills, and responsible decision-making, are better able to adjust, transition, and perform better not only in school but also throughout their lives (Khusnidakon, 2021).

Family time also plays a significant role in enhancing social interaction. Activities such as family meals, game nights, or shared hobbies contribute to children's sense of belonging and emotional security. These interactions help children develop social competence by learning how to navigate relationships within a supportive environment.

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Fostering Independent Learning Skills

Independent learning is crucial for academic and future success. Technology, when used educationally, has positive links to children's language comprehension and executive functions (Arabiat et al., 2022). Research by Clarke and Abbott (2016) also indicates a positive relationship between iPad use and children's writing and drawing abilities. Utilising technology allows children to develop skills through available applications.

Technology offers avenues for self-discovery, empowering children to make decisions, follow their interests, and learn from errors, thereby fostering independence and self-reliance. Engaging in problem-solving activities that demand critical thinking and analysis further strengthens their capacity for independent learning. For example, playing video games can enhance focus on details (Grey & Bavelier, 2007), improve memory, and increase task flexibility (Dye, Green & Bavelier, 2009).

Furthermore, open-ended play encourages exploration, experimentation, and creativity without rigid guidelines, nurturing curiosity. Age-appropriate technological challenges also motivate children to push their boundaries, building a sense of competence and autonomy.

Strengthening Parental Involvement

Parental involvement is a cornerstone of children's development. Home is where most parents interact with their children regarding their education and school-related topics (Sim, 2023). The most important factors of home-based parental involvement are motivation and communication, despite these being influenced by other factors (Ishak, Mohd Satar & Zakaria, 2020). They need to educate the children to be savvy while using the medium: technology literacy. Regular communication between parents and teachers also ensures that parents are aware of their children's progress and actively involved in their education. Participation in school activities such as volunteering or attending parent-teacher conferences strengthens the connection between parents and the school community.

In addition, self-efficacy makes parenting skills more effective and comprehensive as they are more confident and authoritative with their children (Đurišić & Bunijevac, 2017). As mentioned earlier, they are the gatekeepers who control children's screen time in their family (Mupalla et. al,2023). Access to parenting resources such as books, articles, websites, and support groups helps parents stay informed about best practices while ensuring children's benefits and safety in the cyber world. Parenting workshops offered by schools or community organisations equip parents with knowledge on child development and effective communication strategies (Epstein, 2011). Parents need to be a part of their children’s media experiences so they will be ready to expose them to the vast benefits of technology and, at the same time, educate them on the downsides of the platform.

Early Intervention Programs

Early intervention programs address developmental delays or learning difficulties before they become significant barriers. Developmental screenings help identify potential issues early on, enabling timely support through targeted interventions. Collaboration among professionals from various disciplines ensures comprehensive care for children facing developmental challenges (Dunst et al., 2007; McLoyd, 1998).

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Curriculum Adjustments

Kindergartens can implement differentiated instruction strategies to accommodate diverse levels of preschool preparedness. Play-based learning activities promote social-emotional development alongside cognitive growth in an engaging manner. Social abilities, including empathy, perspective-taking, teamwork, negotiating, and peer relationships, are all facilitated by play (Kaizar & Alordiah, 2023). Individualised learning plans ensure that each child's unique needs are addressed effectively.

Providing transitional support for children entering kindergarten from less formal preschool settings helps them adapt to structured learning environments gradually. This includes offering emotional guidance alongside academic support.

Conclusion

Addressing the pervasive "preparedness gap" is paramount to ensuring equitable access to quality education and fostering the holistic development of all Malaysian children, enabling them to thrive not only in kindergarten but also throughout their academic trajectories and beyond. Mitigating the potential negative impacts of technology through the promotion of responsible digital usage, deliberately enhancing opportunities for social interaction and the cultivation of essential interpersonal skills, fostering independent learning capabilities, and strengthening parental engagement in early childhood education are critically interconnected strategies.

These multifaceted approaches are vital for equipping young learners with the foundational skills and competencies necessary to navigate the complex challenges, seize the diverse opportunities presented by the 21st century, and create human capital that will support the achievement of Malaysian Madani aspirations. To further inform effective policy and practice, future research should prioritise longitudinal studies to comprehensively assess the long-term impact of the preparedness gap on academic achievement, social-emotional development, and economic outcomes.

Moreover, rigorous evaluations of targeted intervention strategies, including early childhood programs, teacher training initiatives, and parental support services, are essential to identify evidence-based solutions that effectively address this pressing educational challenge and promote a more equitable and prosperous future for all Malaysian children. To comprehensively address the pervasive "preparedness gap" in Malaysia and ensure equitable access to quality education, it is essential to adopt a multifaceted approach that encompasses various interconnected strategies. This approach should prioritise the holistic development of all Malaysian children, enabling them to flourish not only in kindergarten but throughout their entire academic journey and beyond.

Study Limitations

The study is limited by a lack of longitudinal data, preventing full analysis of long-term preparedness gap effects. Further research should thoroughly evaluate interventions, as the current study's assessment may be insufficient. The study's focus on specific preparedness gap elements also resulted in a restricted scope, despite advocating for a comprehensive strategy.

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Critical Strategies to Bridge the Preparedness Gap

Promoting Responsible Digital Usage: Although technology offers numerous benefits, it is crucial to mitigate its potential negative impacts. This can be achieved by promoting responsible digital usage practices from an early age, ensuring that children develop a healthy relationship with technology and are equipped to navigate the digital landscape safely and effectively.

Enhancing Social Interaction and Interpersonal Skills: Deliberate efforts must be made to create ample opportunities for social interaction among children, fostering the development of essential interpersonal skills, such as communication, collaboration, and empathy. These skills are vital for success in both academic and social settings.

Fostering Independent Learning: Cultivating independent learning capabilities among young learners is crucial to their lifelong learning journey. This involves encouraging curiosity, initiative, and self-directed learning, empowering children to take ownership of their education and developing a love of learning.

Strengthening Parental Engagement: Parental involvement plays a significant role in early childhood education. Strengthening parental engagement through various initiatives can provide children with additional support and guidance, thereby enhancing their learning experiences and overall development.

Addressing the pervasive "preparedness gap" in Malaysia's education system requires a cohesive and multifaceted strategy centred on four critical pillars: promoting responsible digital usage, enhancing social interaction and interpersonal skills, fostering independent learning, and strengthening parental engagement. The integration of technology into education, while offering undeniable benefits for access and innovation (Moorhouse, 2020; Afsheen Rezai et al., 2024), must be carefully managed to mitigate potential negative impacts on attention spans and social development (Christakis, 2009; Uhls et al., 2014). Concurrently, deliberate efforts to cultivate essential interpersonal skills such as communication, collaboration, and empathy are vital for nurturing well-rounded individuals capable of thriving in both academic and social contexts (Teo & Ho, 2015). Furthermore, empowering young learners through the cultivation of independent learning capabilities – encouraging curiosity, initiative, and self-directed exploration – is crucial for fostering a lifelong love for learning and adaptability to the evolving demands of the 21st-century workforce (Shah et al., 2020). Finally, recognising the indispensable role of parental involvement, schools and policymakers must prioritise initiatives that strengthen engagement and provide families with the resources and support needed to actively participate in their children's educational journeys (Epstein, 2011; Kantova, 2024). By strategically implementing these interconnected strategies, Malaysia can effectively bridge the preparedness gap, fostering equitable opportunities for all students to succeed and contributing to the nation's progress toward becoming a developed Madani society.

Future Research and Evidence-Based Solutions

This research has achieved partial success in informing effective policy and practice by illustrating the interconnectedness of factors contributing to the preparedness gap and recommending a comprehensive response. Several objectives are ongoing, representing persistent challenges this research continues to address: addressing the preparedness gap, fostering holistic development, mitigating the negative impacts of technology, enhancing social interaction, fostering independent learning capabilities, strengthening parental engagement,

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and equipping learners for the 21st century. Further research, including longitudinal studies and rigorous evaluations, is imperative to determine evidence-based solutions for these enduring challenges.

To further inform effective policy and practice in addressing the preparedness gap, future research should prioritise longitudinal studies that comprehensively assess the long-term impact of this gap on various outcomes, including academic achievement, social-emotional development, and economic well-being. Additionally, rigorous evaluations of targeted intervention strategies such as early childhood programs, teacher training initiatives, and parental support services are essential for identifying evidence-based solutions that effectively address this pressing educational challenge.

Creating a More Equitable and Prosperous Future

By implementing these multifaceted approaches and investing in evidence-based solutions, Malaysia can create a more equitable and prosperous future for all its children. Bridging the preparedness gap will equip young learners with the foundational skills and competencies necessary to navigate the complexities and seize opportunities of the 21st century. This will, in turn, contribute to the development of human capital that is well prepared to support the achievement of Malaysia's Madani aspirations and drive the nation's progress.

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References

Arabiat, D., Al Jabery, M., Robinson, S., Whitehead, L. & Mörelius, E. (2022). Interactive technology use and child development: A systematic review. DOI: 10.1111/cch.13082

Australian Government Department of Education, Employment and Workplace Relations. (2013). *The early years learning framework in action*.

Basri, N. F. H., & Rahim, A. (2024). Excessive screen time delays children's milestone development: A parent's guide. Retrieved from https://www.mmgazette.com/excessive-screen-time-delays-childrens-milestone-development-a-parents-guide-dr-nurul-firdausi-hasnol-basri-dr-adilah-rahim/

Bechtold, E. (2023, Aug 25). iPad Kids: A product of our own screentime addiction. Medium. https://medium.com/chasing-purple-skies/ipad-kids-a-product-of-our-own-screentime-addiction-d667a8585601

Bronfenbrenner, U. (1979). *The Ecology of Human Development*.

Christakis, D. A. (2009). The effects of fast-paced cartoons. *Pediatrics*, 124(5), 1297-1302.

Clarke, L., & Abbott, L. (2016). Young pupils', their teacher's and classroom assistants' experiences of iPads in a Northern Ireland school: "Four and five years old, who would have thought they could do that?". British Journal of Educational Technology, 47(6), 1051–1064

Đurišić, M., & Bunijevac, M. (2017). Parental Involvement is an Important Factor for Successful Education.Center for Educational Policy Studies Journal, 7(3), 137–153. https://doi.org/10.26529/cepsj.291

Dewi, R., Kumala, L., Eliana, E., Widiyanti, D., & Rina, R. (2022). The relationship of parenting patterns and long use of gadgets with social development in preschool children. *Proceeding B-ICON, 1*(1), 1–10. https://doi.org/10.33088/bicon.v1i1.6

Dewi, N. R., et al. (2022). Socioeconomic factors and school readiness in Malaysia. *International Journal of Early Childhood Education*, 28(1), 45-62.

International Journal of Modern Education
IJMOE
EISSN: 2637-0905
Volume 7 Issue 25 (June 2025) PP. 249-263
DOI: 10.35631/IJMOE.725018
Duncan, G. J., et al. (2007). School readiness and later achievement. *Developmental Psychology*, 43(6), 1428-1446.

Dunst, C. J., Trivette, C. M., & Hamby, D. W. (2007). Meta-analysis of family-centred help giving practices research. *Family Relations, 56*(3), 283–294. https://doi.org/10.1111/j.1741-3729.2007.00454.x

Dunst, C. J., Trivette, C. M., & Hamby, D. W. (2007). Family-centered practices and policies: Implications for children with disabilities. *Exceptional Children, 74*(1), 39–55.

Duncan, G. J., Dowsett, C. J., Claessens, A., Magnuson, K., Huston, A. C., Klebanov, P., ... Brooks-Gunn, J. (2007). School readiness and later achievement. *Developmental Psychology, 43*(6), 1428–1446. https://doi.org/10.1037/0012-1649.43.6.1428

Dye, M.W., Green, C.S. & Bavelier, D. (2009). Increasing Speed of Processing With Action Video Games. Current Directions in Psychological Science.18(6):321–326.

Epstein, J. L. (2011). *School, family, and community partnerships: Preparing educators and improving schools*. Westview Press.

Ghazali, A., Mohamad Ashari, Z., & Abu Bakar, A. (2023). The relationship between kindergarten teachers' perceptions and children's readiness skills in Selangor, Malaysia: A survey study. *Sains Humanika, 15*(3), 51–62. https://doi.org/10.11113/sh.v15n3.204

Ghazali, A. (2023). *School Readiness in Malaysia: Key Findings*. Ministry of Education. https://www.google.com/search?q=https://www.moe.gov.my/en/school-readiness-malaysia

Gray, P. (2011). The decline of play and the rise of psychopathology in children. *American Journal of Play, 3*(4), 443–463.

Green, C.S., & Bavelier, D. (2007). Action video game experience alters the spatial resolution of vision. Psychological Science.; 18(1):88–94.

Ishak, N.A., Mohd Satar, N.H., and Zakaria, R.H. (2020). Parental involvement in education among urban families in Malaysia. Jati-Journal of Southeast Asian Studies, 25(2). pp. 60-85. ISSN 1823-4127, DOI https://doi.org/10.22452/jati.vol25no2.4

Kaizar, V. O., & Alordiah, C. O. (2023). Understanding the role of play in promoting cognitive, social, and emotional development in school children: Implications for counsellors and evaluators. *University of Delta Journal of Contemporary Studies in Education, 2*(1), 138–152.

Khusnidakhon, K. (2021). The importance of enhancing social skills of preschoolers. *European Scholar Journal, 2*(3), 74–78.

Lillard, A. S., & Peterson, J. (2011). The impact of pretend play on children's development: A review of the evidence. *Early Childhood Research Quarterly, 26*(4), 466–499. https://doi.org/10.1016/j.ecresq.2011.02.001

Lillard, A. S., & Peterson, J. (2011). The immediate impact of different types of television on young children's executive function. *Pediatrics*, 128(4), 644-649.

Malik, F., & Marwaha, R. (2022). Developmental stages of social emotional development in children. In *StatPearls* [Internet]. StatPearls Publishing. Retrieved from https://www.ncbi.nlm.nih.gov/books/NBK534819/

McLoyd, V. C. (1998). Socioeconomic disadvantage and child development. *American Psychologist, 53*(2), 185–204. https://doi.org/10.1037/0003-066X.53.2.185

Muppalla, S. K., Vuppalapati, S., Reddy Pulliahgaru, A., & Sreenivasulu, H. (2023). Effects of excessive screen time on child development: An updated review and strategies for management. *Cureus, 15*(6), e40608. https://doi.org/10.7759/cureus.40608

Neumann, M. M. (2023). Digital media use and social-emotional development in early childhood. *Early Childhood Research Quarterly*, 65, 1-12.

International Journal of Modern Education
EISSN: 2637-0905
IJMOE
Volume 7 Issue 25 (June 2025) PP. 249-263
DOI: 10.35631/IJMOE.725018
Nurhafani, M., Kurniawati, Y., Pranoto, S., & Nuzulia, S. (2023). The influence of children's gadget use intensity on their social skills. J*PUD - Jurnal Pendidikan Usia Dini, 17*(2), 407–424. https://doi.org/10.21009/JPUD.172.15

Raj, D., Zulkefli, N. A. M., Minhat, H. S., & Ahmad, N. (2022). Parental intervention strategies to reduce screen time among preschool-aged children: A systematic review. *Malaysian Journal of Medicine and Health Sciences, 18*(6), 295–304. https://doi.org/10.47836/mjmhs.18.6.38

Rahim, N. M., & Din, R. (2018). Social skills among adolescents: The role of media usage. *Journal of Social Sciences and Humanities, 13*(2), 123–135.

Rahim, S. A., & Din, N. (2018). Screen time and social skills among Malaysian preschoolers. *Malaysian Journal of Child Health*, 22(2), 102-110.

Ready, D. D. (2010). Socioeconomic disadvantage, school attendance, and early cognitive skill development: The differential effects of school exposure. *Sociology of Education, 83* (4), 271–286. https://doi.org/10.1177/0038040710383520

Ready, D. D. (2010). Socioeconomic disadvantage, school readiness, and early achievement. *Developmental Psychology*, 46(6), 1330-1344.

Scott, F. (2021). Family mediation of preschool children's digital media practices at home. *Learning, Media and Technology, 47* (2), 235–250. https://doi.org/10.1080/17439884.2021.1960859

Shonkoff, J. P., & Phillips, D. A. (Eds.). (2000). *From neurons to neighbourhoods: The science of early childhood development*. National Academies Press.

Sim, Hui Yee. (2023). A study on the relationship between parents' educational level and their involvement in children's learning in Johor. http://eprints.utar.edu.my/6082/1/2001075_Sim_Hui_Yee.pdf

Swing, E. L., Gentile, D. A., Anderson, C. A., & Walsh, D. A. (2010). Television and video game exposure and the development of attention problems. *Pediatrics, 126*(2), 214–221. https://doi.org/10.1542/peds.2009-1508

Tadprikar, A., Sharma, M. K., & Murthy, P. (2024). Digital dilemmas and existing recommendations for healthy screen time use for children and adolescents. *Asian Journal of Psychiatry, 99*, 104154. https://doi.org/10.1016/j.ajp.2024.104154

Tadprikar, S., Sharma, N., & Murthy, S. (2024). Screen time guidelines for children: A global perspective. *Pediatric Health, Medicine and Therapeutics*, 15, 23-34.

Uhls, Y. T., Michikyan, M., Morris, J., Garcia, D., Small, G. W., Zgourou, E., & Greenfield, P. M. (2014). Five days at outdoor education camp without screens improves preteen skills with nonverbal emotion cues. *Computers in Human Behavior, 39*, 387–392. https://doi.org/10.1016/j.chb.2014.05.036

Vygotsky, L. S. (1978). *Mind in Society: The Development of Higher Psychological Processes*.

сложилось, G. (2013). *The early years learning framework in action*. Australian Government Department of Education, Employment and Workplace Relations.