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INTRODUCTION OF DIGITAL LITERACY SKILLS BY PARENTS IN EARLY CHILDHOOD TO PREVENT MOBILE PHONE ADDICTION BEHAVIOR

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Abstract

Data from the Central Statistics Agency (BPS) in 2022 indicate that 34.44% of early childhood children in Indonesia have used gadgets. However, the implementation of digital literacy by parents has not kept pace. A survey conducted in Semarang revealed that 73.9% of parents had not introduced digital literacy to their children. This study aims to provide an overview of how parents introduce digital literacy skills to early childhood children as a preventive measure against gadget addiction. The research employed a descriptive quantitative method using a survey approach. The data source consisted of 94 parents in Jakarta. A purposive sampling technique was used, considering the parents' educational background and their status as caregivers of children aged 0–8 years. The questionnaire was distributed through Google Forms. The instrument comprised 16 closed-ended questions regarding the introduction of digital literacy skills and behaviors related to gadget addiction as reported by the respondents.Data were analyzed using simple descriptive statistical analysis by presenting figures and diagrams, as well as qualitative analysis through the interpretation of research data. The findings indicate that the majority of parents in Jakarta have introduced digital literacy to their children.
and school fees.

Keywords: Digital Literacy Skills, Parents, Early Childhood, Mobile Phone Addiction Behavior

Abstrak

Data Badan Pusat Statistik 2022 menunjukkan 34,44% anak usia dini di Indonesia telah menggunakan gadget. Namun ternyata penerapan literasi digital oleh orang tua tidak diikuti, survei data di Semarang menunjukkan 73,9% orang tua belum menerapkan literasi digital kepada anak-anaknya. Penelitian ini bertujuan untuk memberikan gambaran terkait pengenalan keterampilan literasi digital orang tua pada anak usia dini guna mencegah perilaku adiksi gawai. Metode penelitian yang digunakan adalah metode kuantitatif deskriptif melalui penelitian survei. Sumber data penelitian ini adalah 94 orang tua di Jakarta. Penelitian ini menggunakan teknik purposive sampling dengan mempertimbangkan latar belakang pendidikan dan orang tua yang memiliki anak usia 0-8 tahun. Alat penyebaran kuesioner menggunakan media Google Forms. Instrumen berisi 16 pertanyaan tertutup terkait pengenalan keterampilan literasi digital dan perilaku adiksi gawai yang dilakukan oleh responden. Analisis data menggunakan analisis statistik deskriptif sederhana dengan menampilkan angka dan diagram serta analisis kualitatif yaitu dengan menerjemahkan data hasil penelitian. Hasil penelitian menunjukkan bahwa sebagian besar orang tua di Jakarta telah mengenalkan literasi digital kepada anak.

Kata Kunci: *Keterampilan Literasi Digital, Orang Tua, Anak Usia Dini, Perilaku Kecanduan Telepon Genggam*

Introduction

The rapid advancement of technological innovation and the digital ecosystem has not only affected adults but also significantly impacted children. Nearly every aspect of their daily activities is now influenced by technology exposure, and without proper education, the potential use of digital tools may lead to various issues. Concern over a polarized future for children makes the effort to cultivate digital literacy an essential and non-negotiable aspect. Children who are well-facilitated and understand how to access digital media can obtain information directly through internet-connected devices (Maulana Ahmad et al., 2024).

User internet in Indonesia approximately reaches 73.7% of the total population, this figure is the result of a survey conducted by APJII (Association of Indonesia Internet Service Providers) for the 2019–2020 period (Gunawan et al., 2021). The survey numbers produced by APJII are huge because more than half of the population in Indonesia has used the Internet. Especially for early childhood cluster users, according to data from the Central Statistics Agency (BPS), in 2022 as many as 33.44% of early childhood aged 0-6 years in Indonesia can use mobile phones. Meanwhile, 24.96% of early childhood children in the country are also able to access the internet. The percentage of people who use cell phones in children aged 0–4 years or toddlers is only 25.5%. While the age of 5–6 years is 52.76%. The same pattern is also seen in children who access the internet. The age of toddlers was 18.79%, while children aged 5–6 years were 39.97%. The majority of parents 94% said that if their child is used to using a smartphone to play online games, 63% of children can spend a maximum of 30 minutes in a single game, while 15% of parents say that their child can play a game for 30–60 minutes and the rest can interact with a game more than 1 hour (Oktafia et al., 2021). A survey by The Asian Insight (2014), shows that 67% of children aged 3 to 8 years have started using gadgets owned by their parents, 1% use gadgets owned by their siblings, and 14% use privately owned gadgets.

The majority of children wear it to play. Children who were initially happy to play with their friends can change gadgets as a substitute for their playing friends. These children have become active consumers and many electronic and gadget companies make children the target market (Subarkah, 2019). Dependence on children is caused by the length of time in using gadgets (Efendi M.F, 2013). Gadget addiction for children tends to have problems with concentration, language development (Maulana, Ade Novia, Putra, D.I Asusa Ariska, 2014; Oktaviana, 2021), and motor skills (Thesia, 2022). Higher frequency of gadget use was associated with decreased verbal intelligence and a smaller increase in brain volume after several years which affected language processing, attention, memory, executive function, emotional function, and appreciation to it self and other person (Pratiwi, PA, 2022; Warmansyah et al., 2023; Yuniarni, 2019). Gadget addiction interferes with development in various aspects. In everyday life, underage internet users can easily be found in public places such as residential areas, playgrounds, shopping centers, or even recreational spots. It is not

uncommon to see young children engrossed in their gadgets, and actively engaged with various applications or games installed on their devices (Lindriany et al., 2022).

In various public spaces such as shopping centers, restaurants, and airports, it is common to observe children aged 3 to 9 engrossed with digital devices, including mobile phones or tablets. These gadgets are often used to access games or movies via the internet. When interacting with the internet, children also tend to adapt to digital technology more easily than adults. In response to this phenomenon, some parents even express pride when their very young children can operate computers or other digital devices independently (Munawar et al., 2019).

The development of gadgets is inevitable, adults must be able to educate without seizing children's rights to access digital content and games so that gadgets become effective devices. A gadget is like a double-edged sword, on the one side this device provides the necessary benefits and on the other side, it also creates a lot of potential harm (Novianti & Garzia, 2020). Parents should have digital literacy skills to assist their children in using gadgets, including parents comprehending how to access the internet safely by choosing a website that supports children's development (Prima & Ariyani, 2023). Through the appropriate introduction and utilization of digital technology, significant changes can be brought about in a child's growth and development. Controlled digital habits practiced by parents together with their children can lead to a positive adoption rate, contributing to the enhancement of cognitive, social, and emotional development, fostering critical thinking skills, and broadening their horizons. This approach also serves to teach children to think openly in response to the situations and conditions they encounter through digital-based devices (Maulana Ahmad et al., 2024).

Some research results say that There are still some parents who have not maximized the functions of technological devices as their daily needs (Lestari et al., 2018). Parents in the city of Surabaya do not understand the terms of the use of gadgets (Wibowo & N.F, 2023). The digital literacy ability of early childhood parents in Tampan District, Pekanbaru City, Riau Province is in the low category, with a percentage of 31% (Ain, Nur, Ria, Novianti, Yeni, Solfah, Endah, 2021). In the city of Semarang, out of 120 parents in kindergarten schools surveyed related to digital literacy involvement, the number is very high, namely 73.9% (Munawar et al., 2019). These studies show that parental involvement in digital literacy in early childhood is still low. The importance of parents having knowledge and skills in digital literacy lies in their ability to utilize information wisely and avoid the risks. In the field of education, the integration of digital technology into the learning process can enhance both effectiveness and efficiency, as it facilitates the search for and dissemination of information (Maulana Ahmad et al., 2024).

Digital literacy is a process that relies on knowledge literacy, internet literacy, web literacy, and digital literacy (Donaldson & Alker, 2019). Digital literacy is a survival skill for users who intuitively carry out complex digital tasks. Digital literacy

includes six skills including photo-visual literacy, reproductive literacy, social-emotional literacy, branching literacy, information literacy, and real-time thinking (Eshet-Alkalai & Chajut, 2010). The role of digital literacy enables teachers and students to engage in effective communication, even without direct face-to-face interaction. Furthermore, the development of digital literacy—which includes information literacy and computer technology literacy—is aimed at enhancing the quality of human resources with competitive capabilities in the 21st century (Novitasari & Fauziddin, 2022). Parents should understand digital literacy competencies which include competencies to access, select, and understand internet browsing (Davidson, 2012). Digital literacy has a positive and significant effect on early childhood social behavior (Drupadi et al., 2022). The impact of lack of mastery of digital literacy can cause children to be incompetent and helpless (Meyers et al., 2013)

Digital literacy education for early childhood contributes significantly to the development of a child's psychological, linguistic, cognitive, emotional, social, academic, and critical thinking abilities. To date, digital literacy education for young children has primarily taken place in schools with the guidance of teachers. However, an equally—if not more—important aspect is the provision of digital literacy education at home, supported by the family or parents. Parents and teachers must work collaboratively to enhance children's literacy development. Teaching digital literacy at home to early childhood learners can be done quite easily. One effective method is through the regular practice of reading fairy tales or storybooks aloud to children (Lindriany et al., 2022).

The results of a survey of Internet users in Indonesia in 2024 stated that the user rate in Jakarta reached 86.96%. The achievement rate is a high number. The purpose of this study is to determine the involvement of parents in providing digital literacy in early childhood to prevent gadget addiction in early childhood in Jakarta.

Method

The research method used in this study is a descriptive quantitative method through survey research. The data source for this study consists of 94 parents residing in Jakarta. This study uses a purposive sampling technique, taking into consideration the educational background and parents who have children aged 0–8 years. The questionnaire distribution tool utilizes Google Forms. The instrument contains 16 closed-ended questions related to the introduction of digital literacy skills and mobile phone addiction behaviors (Gadget Addiction) conducted by the respondents. Data analysis in this study uses simple descriptive statistical analysis by presenting numbers and diagrams, as well as qualitative analysis, which involves interpreting the research data.

The descriptive quantitative approach is implemented through a survey method. This approach was chosen as it is considered the most suitable to systematically, factually, and accurately describe the phenomena, facts, and characteristics of a

particular population, in this case, related to the level of digital literacy and tendencies of gadget addiction in early childhood, observed from the involvement of parents.

Descriptive quantitative research aims to provide a comprehensive overview of the variables being studied based on the quantitative data collection from respondents. Through this method, the researcher can present data in numerical form that is easy to analyze, both statistically and in descriptive form with accompanying qualitative interpretations.

The data source in this study consists of 94 parents residing in the DKI Jakarta area. The selection of respondents was done using the purposive sampling technique, which is a sampling method based on specific considerations or criteria established by the researcher. In this study, the criteria used are parents who have children aged 0–8 years and have varying educational backgrounds. This was done to ensure that the data collected reflects the experiences and perspectives of various groups of parents relevant to the research topic.

Data collection was conducted by distributing questionnaires online using Google Forms. The use of digital media is considered effective, as most of the respondents are already accustomed to using digital devices and have internet access. Additionally, using Google Forms facilitates the distribution of the questionnaire, real-time data collection, and efficiency in the data compilation process.

The research instrument in the form of a questionnaire was designed with closed-ended questions, where respondents are asked to choose from the provided answers. The total number of questions in the questionnaire is 16, divided into two main sections. The first section consists of questions related to the introduction and understanding of digital literacy skills among parents, such as their ability to use technology, access to information via the internet, and understanding of digital content suitable for children. Meanwhile, the second section contains questions measuring the tendency of gadget addiction behaviors in their children, including the duration of gadget use, types of digital activities performed by the children, and parental supervision over gadget usage.

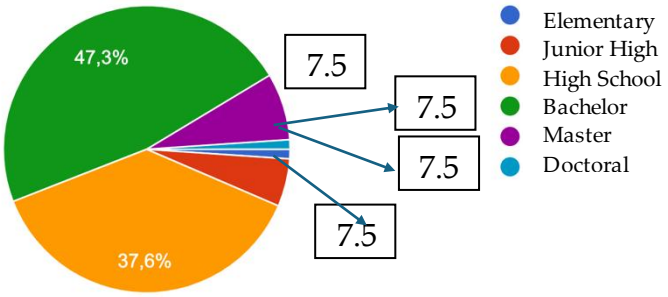
After the data has been collected, the next step is to perform data analysis. In this study, the researcher uses two approaches to data analysis: descriptive statistical analysis and qualitative analysis. Descriptive statistical analysis is conducted by presenting the data in numerical form, tables, and bar or pie charts to illustrate the frequency, percentage, and general trends of the respondents' answers. This analysis aims to provide a clear quantitative overview of the level of digital literacy among parents as well as the gadget usage behavior of their children.

On the other hand, qualitative analysis is carried out by interpreting and explaining the data obtained in-depth, particularly to illustrate patterns or trends emerging from the quantitative data. Thus, qualitative analysis serves as a complement to understanding the context and meaning of the data collected and helps to answer the research problem more comprehensively.

Overall, this research method is designed to obtain valid and relevant data regarding the role of parents in guiding early childhood in the use of digital technology and preventing potential gadget addiction. By combining quantitative approaches with qualitative interpretation, it is expected that the results of this study will contribute to strengthening digital literacy within the family environment, especially in facing the challenges of the digital era today.

Results and Discussion

The results of this study show that the introduction of digital literacy was carried out by 94 parents of children aged 0–8 years in Jakarta Province with the following educational background:



The subjects of the study were parents with an elementary school education background of 1.1%, junior high school 5.4%, high school 37.6%, bachelor 47.3%, master's 7.5%, doctoral 1.1%. The majority of respondents are parents with bachelor's education.

The majority of respondents hold a bachelor's degree (S1). This indicates that the parents involved in this study tend to possess higher levels of critical thinking and a deeper understanding of educational and technological issues. Higher education levels may also influence how parents introduce and supervise the use of digital technology for their children, particularly in the implementation of digital literacy.

Parents are seen from the ownership of the child's age which is divided into 6 classifications, namely Age 0–1 years 2,1%, Age 1–2 years 3,2%, Age 3–4 years 2,1%, Age 4–5 years 17%, Age 5–6 years 57,4%, Age 7–8 years 18.1%. So the majority of parents have children aged 5–6 years who are the subjects of the study.

Most of the children fall within the age range of 5–6 years. This is a transitional period from pre-school to formal education, during which foundational skills such as reading, writing, and basic technological awareness begin to develop. Children at this age are highly susceptible to environmental influences, including the use of gadgets and digital technology. Therefore, the introduction of digital literacy at this stage is crucial and represents an opportune moment to establish a strong foundation for healthy and responsible technology use.

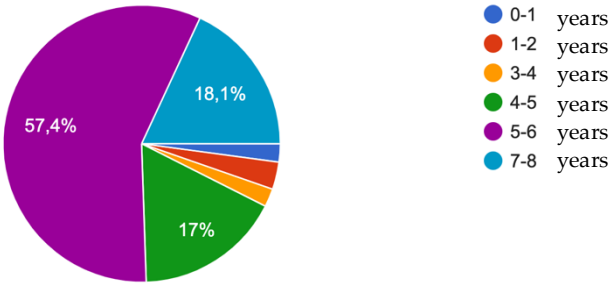
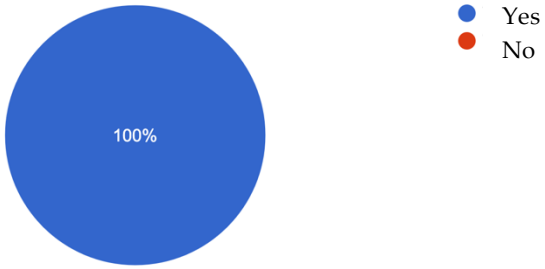


Figure 2. Child Age

Digital literacy carried out by parents to early childhood includes:

Parents give rules

The percentage of parents giving rules to children before using gadgets on children is 100%.



Jsing Gadgets

Parents provide education on positive and negative impacts

The percentage of parents providing positive education was 95,7% and the negative impact of gadget use on children was 100%.

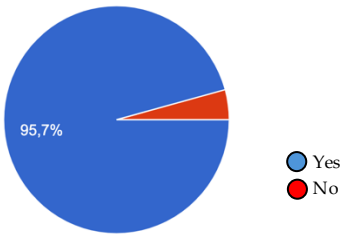


Figure 4. Positive education percentage

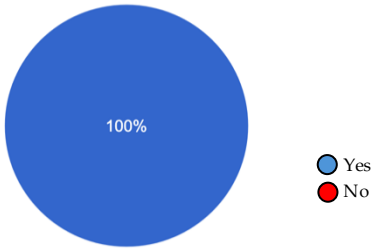
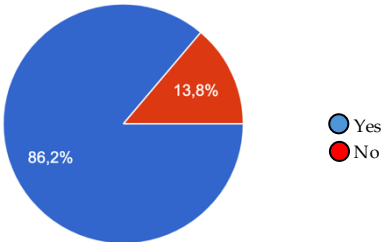


Figure 5. Negative education percentage

Parents discuss children's viewing

Parents invited their children to discuss children's spectacles by 86,2% and those who did not discuss spectacles with their children by 13,8%.



Picture. 6 Discussion of watching with children

Parents inform the function of the features on the cellphone/gadget

Parents informed about the function of features on mobile phones/gadgets 62,8% and those who were not informed 37,2%

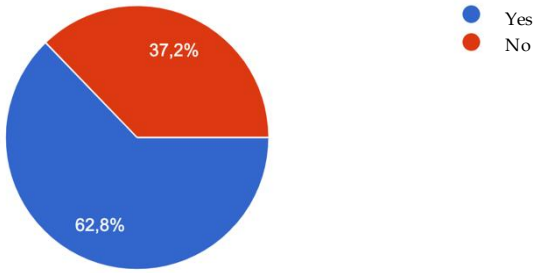


Figure 7. Percentage of parents who tell the function of a feature on a gadget

Parents give time limits in using gadgets

Parents gave a time limit in using gadgets for less than 1 hour by 54,3%, more than 1 hour by 34%, more than 2 hours by 8.5%, and no time limit by 3,2%.

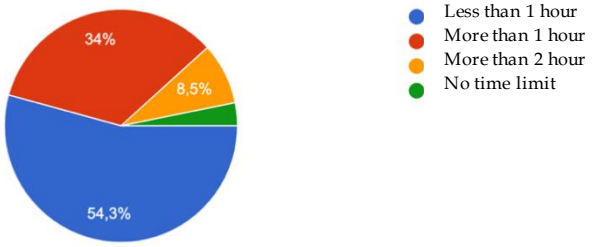


Figure 8. Percentage of time limit in playing gadgets

Parents provide access restrictions

Parents provide access restrictions in the use of gadgets of 98,9% while those who do not provide access restrictions of 1.1%.

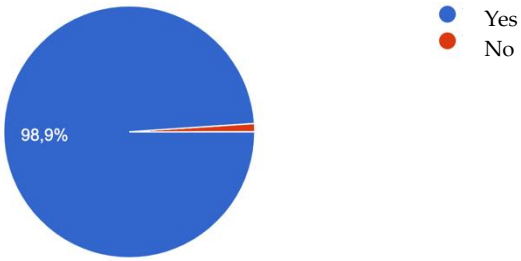


Figure 9. Percentage of parents give limits on using gadgets

Parents accompany their children when playing gadgets

Parents accompany their children when playing gadgets by 50% while 50% of parents do not accompany their children.

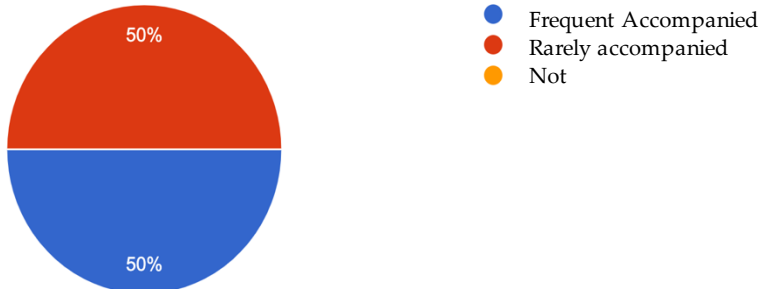


Figure 10. Percentage of parents accompanying children in using gadgets

Looking at the results of respondents from the majority of parents in Jakarta who have introduced digital literacy to children among the digital literacy introduction efforts carried out first, providing understanding to children related to spectacle by discussing 86,2%, assisting in using gadgets by 50% and discussing children's spectacle by 86,2%. Second, providing provisions to access the internet, namely providing rules of 100%, parents giving access restrictions of 98.9%, and parents informing the features of gadgets before children use them 62,8%. Third, selecting, namely with parents providing positive education by 95,7% and negative about the use of gadgets in children by 100%.

The high percentage of parents who engage in discussions with their children regarding media content (86.2%) indicates that two-way communication between parents and children has begun to be implemented in the use of digital media. This is important because open discussions enable children to understand the values embedded in the content and help develop critical thinking skills concerning what they consume digitally.

All respondents (100%) reported having established rules for internet use, and nearly all (98.9%) have imposed access restrictions. This reflects a high level of parental awareness regarding the importance of controlling digital exposure as a preventive measure against negative content and the risk of addiction.

The education provided is not only preventive naturally (offering an understanding of the negative impacts of gadget use), but also promotive (explaining the positive benefits of using gadgets wisely). This approach is highly significant, as children require guidance not only on what should be avoided but also on how to effectively utilize technology for learning and creativity.

The impact of the introduction of digital literacy is reflected in the characteristics of low indications of gadget addiction, this can be seen from the following data:

Every time there is free time for children to use gadgets

Every time there is free time, children use gadgets by only 26.9% while 73.1% do not use their gadgets every time there is free time, meaning that children are not indicated to be addicted to gadgets.

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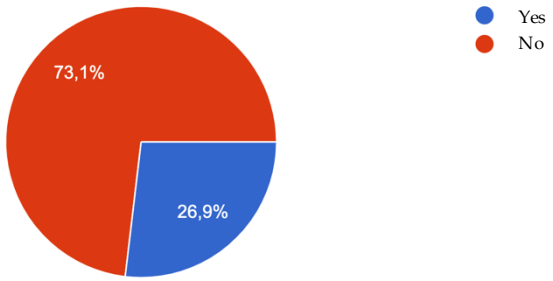

Figure 11. Percentage of children in using gadgets in their spare time

Children stop playing gadgets when given punishment

Children stopped playing gadgets when given a punishment of 16,%, while stopping with self-awareness was 83,9%. The percentage without being given is punished even less.

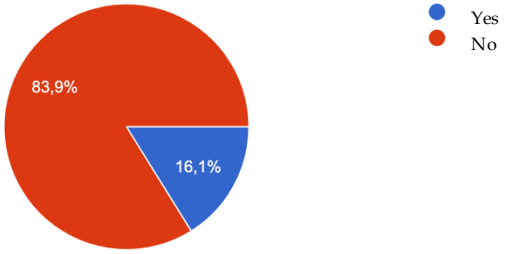

Figure 12. Percentage of children who stop playing gadgets when given punishment

Children always sleep late at night when playing gadgets

Children who always sleep late at night when playing gadgets are 2.1% while children who do not sleep until late at night when playing gadgets are 97.9%. So only 2.1% of children sleep late at night when playing gadgets.

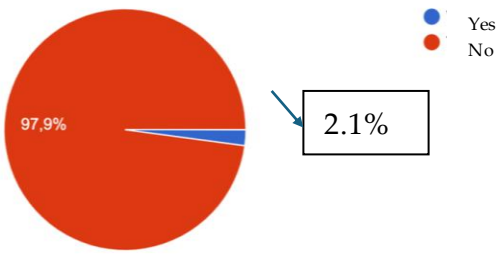

Figure 13. Percentage of children playing gadgets until sleeping late at night

Children feel anxious when they are not given gadgets

The percentage of children who feel anxious when they are not given gadgets is 7,4% while those who are not are 92.6%. This means that fewer children feel restless without a phone.

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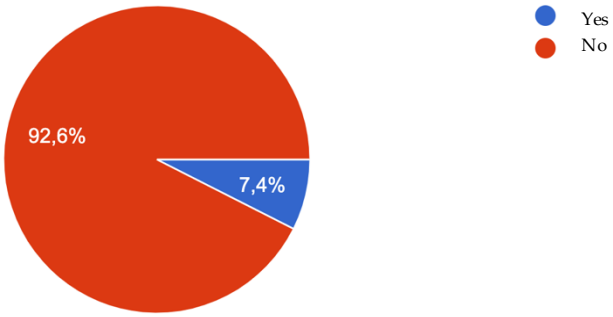

Figure 14. Percentage of children playing gadgets until sleeping late at night

Children must be forced to stop playing gadgets

Children who had to be forced to stop when playing gadgets were 55.3% while 44.7% of children did not need to be forced. This means that the forced children have a larger percentage than those who do not.

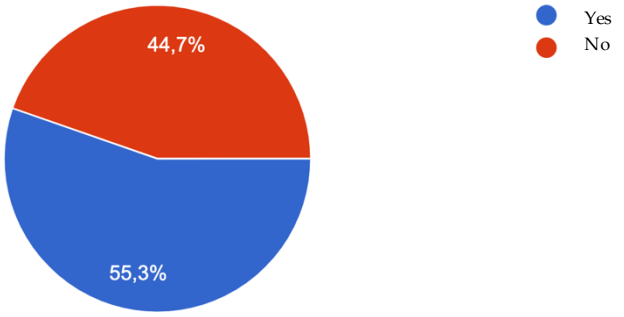

Figure 15. Percentage of children who are forced to stop playing gadgets

Parents scare children to stop playing gadgets

Parents must scare their children so that their children stop playing gadgets by 57% while 43% of parents do not need to scare their children. This means that the percentage of scaring children to stop playing gadgets is greater.

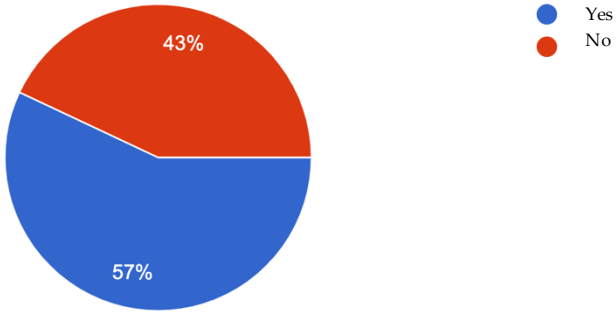

Figure 16. Percentage of parents who scare their children to stop playing mobile phones

Children get angry when gadgets are taken away by parents

Children are angry when their parents take gadgets by 26.6% while those who are not angry are 73.4%.

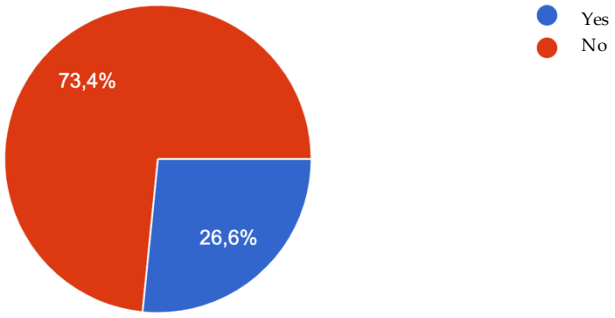

Figure 17. Percentage of parents who scare their children to stop playing mobile phones

Children play more mobile phones than outdoor activities

Since getting to know gadgets, children who are active outdoors are 87.2% while those who prefer to play gadgets are 12.5%, meaning fewer children are dependent on gadgets.

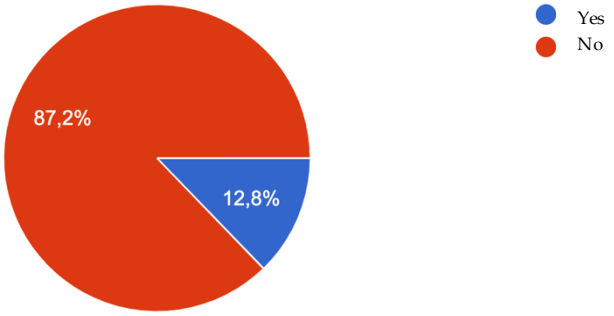

Figure 18. Percentage of children in outdoor activities and playing gadgets

Children are impatient when learning because of gadgets

In general, children when they get to know gadgets will experience disturbances in learning. The results of respondents showed that children who were introduced to digital literacy by their parents would be patient in learning, showing a figure of 86.2% while only 13.8% of children were impatient in learning because they wanted to play gadgets immediately.

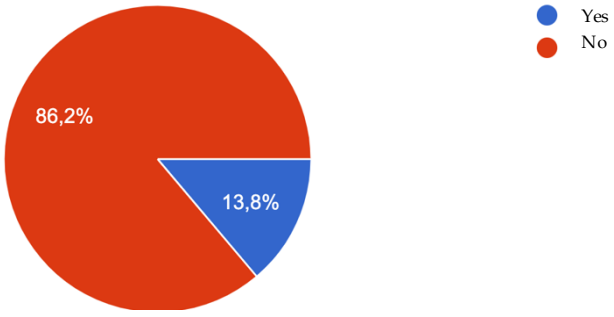

Figure 19. Percentage of children who are impatient in learning because of gadgets

Various positive impacts of digital literacy carried out by parents on the indication of gadget addiction with a low percentage include children using their free time to use gadgets by 26.9%, children stopping playing gadgets when given a punishment of 16%, children always sleeping late at night when playing gadgets by 2.1%, children feel anxious when not given gadgets by 7,4%, children are angry when gadgets are taken by their parents by 26.6%, children prefer to play gadgets by 12.5% rather than outdoor activities and only 13.8% of children are impatient in learning because they want to play gadgets immediately. Overall, although there are various positive impacts of digital literacy practiced by parents, the results of this study emphasize that proper limitations and supervision are crucial to prevent the potential of gadget addiction in children. Parents need to actively teach their children to use technology wisely and in moderation, while also setting a good example in terms of time management and healthy technology usage. However, in terms of stopping playing with digital literacy gadgets, it has not had a positive impact on prevention because the number of respondents is still high in terms of stopping children's playing gadgets must be forced by 55.3% and parents also have to scare children to stop playing with mobile phones by 57% (Ismail et al., 2022).

The development of technology today is very rapid and has influenced all aspects of life, including in the realm of education. The significant influence can be seen from technology which is beginning to be considered as one of the needs that must be met in human life today (Ismail et al., 2022). In various situations, the presence of technological developments has a negative impact on children. This addiction makes children increasingly dependent on gadgets which leads to excessive use of gadgets (Liza et al., 2023).

The family is the first realm of education for every individual. Parents have a central role in managing and assisting the child's education process in the family environment. The role of parents in nurturing, fostering, and educating children at home is an obligation for every parent to shape the personality of their children. Parental assistance regarding the use of gadgets in children is very important, following the current phenomenon of the use of digital media, especially mobile phones in children, is increasing (M. Yemmardotillah, 2021). The high intensity of using mobile digital media without being accompanied by knowledge and skills will have a bad influence on children's development, especially if they are not accompanied and there is no role for parents in the use of digital media (Sisbintari & Setiawati, 2021).

Parents are obliged to accompany their children in the use of gadgets. If you want to give gadgets to your child, parents should do it when the child is over 6 years old, because at that time the anatomical development of the child's brain is already 95% of the adult brain. For children under the age of 6 years old, it is okay to be introduced to gadgets but only introduce the shapes, colors, or sounds they produce, this is used to stimulate children's visual and auditory abilities". Parents have the obligation to control and supervise every form of information received by children through mobile phones.

In addition, parents also interact when children play gadgets by providing good and appropriate explanations (Yusuf et al., 2020).

Digital technology for early childhood has become one of the key factors underlying the importance of introducing digital literacy to children from an early age. This is due to the fact that the use of digital technology by young children is almost unavoidable. Instead of being prohibited, the presence of digital technology should be optimized to support children's development through proper guidance, direction, and supervision from their surrounding environment, namely teachers and parents. When utilized wisely, the positive side of digital technology can be embraced, as it can significantly ease and enhance our daily tasks (Handayani, 2022).

In early childhood, digital literacy plays an important role. Within the educational context, digital literacy contributes substantially to the development of children's cognitive knowledge by stimulating their curiosity and creativity. Introducing digital literacy at an early age involves equipping children with the basic ability to use digital technology in simple ways. For example, children can be taught how to access digital platforms properly and operate digital devices under established guidelines.

The increasing use of digital technology among young children further reinforces the need for early digital literacy education. The unavoidable nature of digital exposure for this age group highlights the urgency of transforming such exposure into meaningful and constructive experiences. This can only be achieved through consistent guidance, direction, and control provided by the adults closest to them—particularly parents and teachers. The role of parents is especially crucial in this regard. Parents must be actively involved in the process of introducing digital literacy to their children. They are expected to provide appropriate instruction, set clear boundaries, and supervise digital technology usage in a way that supports children's holistic development. Parents who are well-informed and engaged in their children's digital experiences will be better equipped to guide them toward becoming responsible, literate digital users from an early age (Handayani, 2022).

Digital literacy is one of the efforts that parents can give to their children to prevent addiction to gadgets (Romero & Catalunya, 2014). Digital literacy provided by parents can develop the intellectual ability to understand media messages. Develop emotional skills, and feel what you and others feel from a message. Develop moral maturity in relation to the consequences of morality for every child.

In line with the objectives of Early Childhood Education, which is to support the physical and spiritual growth and development of children, preparing them for further education, parents who are concerned about their children are those who are involved in all dimensions of a child's development. This means that parents should not only be skilled and knowledgeable about various technical terms related to devices and digital media that their children will purchase or have already used but also ensure that these facilities are properly placed under appropriate supervision and guidance. It is expected that children will be able to use digital facilities to enhance their literacy skills,

foster positive development, and provide opportunities for them to use digital technology effectively (Salehudin, 2020).

Conclusion

This study reveals that the majority of parents in Jakarta have adopted a comprehensive approach to digital literacy for children, with steps such as providing understanding before using gadgets, setting guidelines for internet access, and selecting appropriate content to be viewed. This demonstrates that parents in Jakarta are more proactive in introducing digital literacy in a responsible manner, which is an important finding in the development of digital education policies or programs. The study identifies that the digital literacy efforts carried out by parents have a positive impact on reducing gadget addiction among children, although the percentage remains low.

This finding introduces the concept that digital literacy not only affects children's ability to use technology correctly but also plays a role in reducing gadget addiction behaviors. This opens up opportunities for further development of digital literacy strategies to address technology addiction in children more effectively. The finding that, despite parents teaching digital literacy, it has not yet had a significant impact in preventing children from playing with gadgets indicates that other aspects need to be considere to prevent gadget addiction among children. This highlights the need for a more comprehensive approach that involves strengthening children's awareness and managing their screen time.

The study introduces the importance of building children's awareness regarding gadget usage, not just through setting rules, but also by teaching children to voluntarily manage their gadget usage time. This represents a new contribution to digital literacy, which involves children in the decision-making process related to technology use, helping them develop self-regulation skills in the digital world.

References

Ahmad, S. M., Nurhayati, S., & Kartika, P. (2024). Literasi digital pada anak usia dini: urgensi peran orang tua dalam menyikapi interaksi anak dengan teknologi digital. Kiddo: Jurnal Pendidikan Islam Anak Usia Dini, 5(1), 47-65.

Ain, Nur, Ria, Novianti, Yeni, Solfah, Endah, P. (2021). Analisis Kemampuan Literasi Digital Orang Tua Anak Usia Dini di Kecamatan Tampan Kota Pekanbaru Riau. *Lectura : Jurnal Pendidikan*, *71*(1), 63–71.

Davidson, C. (2012). Seeking the green basilisk lizard: Acquiring digital literacy practices in the home. *Journal of Early Childhood Literacy*, *12*(1), 24–45. https://doi.org/10.1177/1468798411416788

Donaldson, C., & Alker, Z. (2019). Digital Literacy. *Journal of Victorian Culture*, *24*(3), 329–330. https://doi.org/10.1093/jvcult/vcz026

Drupadi, R., Nawangsasi, D., Fatmawati, N., & Sugiana, S. (2022). Pengaruh Digital Literasi Terhadap Perilaku Sosial Anak Usia Dini. *JCE (Journal of Childhood Education)*, *6*(2), 249. https://doi.org/10.30736/jce.v6i2.1084

Efendi M.F. (2013). Pengaruh Gadget Terhadap Perkembangan Anak Usia Dini. *Mahasiswa Universitas Brawijaya PTIIK/ Teknik Informatika*, *1*(4), 3–6.

Eshet-Alkalai, Y., & Chajut, E. (2010). You Can Teach Old Dogs New Tricks: The Factors That Affect Changes over Time in Digital Literacy. *Journal of Information Technology Education: Research*, *9*(January 2010), 173–181. https://doi.org/10.28945/1186

Gunawan, R., Aulia, S., Supeno, H., Wijanarko, A., Uwiringiyimana, J. P., & Mahayana, D. (2021). Social Media and Gadget Addiction by Internet Users in Indonesia (Adiksi Media Sosial dan Gadget bagi Pengguna Internet di Indonesia). *Techno-Socio Ekonomika*, *14*(1), 1–14.

Handayani, I. N. (2022). Peran Orang Tua pada Pengenalan Literasi Digital untuk Anak Usia Dini di Era Teknologi Digital. *Annual Conference on Islamic Early Childhood Education (ACIECE)*, *6*, 101–110.

Ismail, F. B. H., Destari, D., Ahmad, S. B., Mohd Khalid, H. B., & Syed Abu Bakar, S. K. B. (2022). Control of Gadget Addiction Among Children: Analysis from an Islamic Perspective in the Digital Age. *Fenomena*, *22*(2), 215–226. https://doi.org/10.35719/fenomena.v22i2.154

Lestari, S., Kurnianingsih, I., & Wardiyono, W. (2018). Pengukuran Kemampuan Literasi Digital Orang Tua Menggunakan Instant Digital Competence Assessment (Instant Dca). *Bibliotech : Jurnal Ilmu Perpustakaan Dan Informasi*, *3*(2), 91–108. https://doi.org/10.33476/bibliotech.v3i2.598

Lindriany, J., Hidayati, D., & Muhammad Nasaruddin, D. (2022). Urgensi Literasi Digital Bagi Anak Usia Dini Dan Orang Tua. *Journal of Education and Teaching (JET)*, *4*(1), 35–49. https://doi.org/10.51454/jet.v4i1.201

Liza, M. M., Iktidar, M. A., Roy, S., Jallow, M., Chowdhury, S., Tabassum, M. N., & Mahmud, T. (2023). Gadget addiction among school-going children and its association to cognitive function: A cross-sectional survey from Bangladesh. *BMJ Paediatrics Open*, *7*(1), 1–7. https://doi.org/10.1136/bmjpo-2022-001759

M. Yemmardotillah, R. I. (2021). Literasi Digital Bagi Keluarga Milenial Dalam Mendidik Anak Di Era Digital. *Continuous Education: Journal of Science and Research*, *2*(2), 1–13. https://doi.org/10.51178/ce.v2i2.223

Maulana, Ade Novia, Putra, D.I Asusa Ariska, I. D. (2014). Dampak Teknologi Gadget terhadap Perilaku Komunikasi Anak di Desa Tegal Arum. *Journal of Science and Technology*, *14*(2013), 54–65.

Maulana Ahmad, S., Sri Nurhayati, & Prita Kartika. (2024). Literasi Digital Pada Anak Usia Dini: Urgensi Peran Orang Tua dalam Menyikapi Interaksi Anak dengan

Teknologi Digital. *Kiddo: Jurnal Pendidikan Islam Anak Usia Dini*, *5*(1), 47–65. https://doi.org/10.19105/kiddo.v5i1.11611

Meyers, E. M., Erickson, I., & Small, R. V. (2013). Digital literacy and informal learning environments: An introduction. *Learning, Media and Technology*, *38*(4), 355–367. https://doi.org/10.1080/17439884.2013.783597

Munawar, M., Fakhrudin, RC, A. R., & Titi, P. (2019). Keterlibatan orangtua dalam pendidikan literasi digital. *Seminar Nasional Pascasarjana 2019 UNNES*, 1–5.

Novianti, R., & Garzia, M. (2020). Penggunaan Gadget pada Anak; Tantangan Baru Orang Tua Milenial. *Jurnal Obsesi : Jurnal Pendidikan Anak Usia Dini*, *4*(2), 1000. https://doi.org/10.31004/obsesi.v4i2.490

Novitasari, Y., & Fauziddin, M. (2022). Analisis Literasi Digital Tenaga Pendidik pada Pendidikan Anak Usia Dini. *Jurnal Obsesi : Jurnal Pendidikan Anak Usia Dini*, *6*(4), 3570–3577. https://doi.org/10.31004/obsesi.v6i4.2333

Oktafia, D. P., Triana, N. Y., & Suryani, R. L. (2021). Durasi Penggunaan Gadget terhadap Interaksi Sosial pada Anak Usia PraSekolah. *Jurnal Kesehatan*, *4*(1), 31–47.

Oktaviana, A. (2021). Dampak Penggunaan Gadget terhadap Interaksi Sosial Anak Usia Dini Perspektif Hadis. *Kindergarten: Journal of Islamic Early Childhood Education*, *4*(2), 145–153.

Pratiwi, PA, A. (2022). Intensitas Bermain Gadget dengan Suspek Gangguan Pemusatan Pikiran dan Hiperaktivitas (GPPH) pada Anak. *Jurnal Biomedika Dan Kesehatan*, *5*(2), 61–68. https://doi.org/10.18051/jbiomedkes.2022.v5.61-68

Prima, E., & Ariyani, D. (2023). *Parental Understanding of Safe Internet Access for Early Childhood*. *28*(1), 1–13. https://doi.org/10.24090/insania.v28i1.9465

Romero, M., & Catalunya, U. I. De. (2014). *Digital literacy for parents of the 21st century children*. *May*, 32–40.

Salehudin, M. (2020). Literasi Digital Media Sosial Youtube Anak Usia Dini. *Jurnal Ilmiah Potensia*, *5*(2), 106–115.

Sisbintari, K. D., & Setiawati, F. A. (2021). Digital Parenting sebagai Upaya Mencegah Kecanduan Gadget pada Anak Usia Dini saat Pandemi Covid-19. *Jurnal Obsesi : Jurnal Pendidikan Anak Usia Dini*, *6*(3), 1562–1575. https://doi.org/10.31004/obsesi.v6i3.1781

Subarkah, M. A. (2019). Pengaruh Gadget Terhadap Perkembangan Anak. *Rausyan Fikr : Jurnal Pemikiran Dan Pencerahan*, *15*(1), 125–139. https://doi.org/10.31000/rf.v15i1.1374

Thesia, P. (2022). The Impact of Gadget Use on Early Childhood at Jayawijaya Education Foundation Tembagapura School. *International Journal of Social Science And Human Research*, *05*(03), 997–1003. https://doi.org/10.47191/ijsshr/v5-i3-36

Warmansyah, J., Ismandela, A., Fatma Nabila, D., Wulandari, R., Putri Wahyu, W., Khairunnisa, putri, A., Komalasari, E., Sari, M., & Yuningsih, R. (2023). Smartphone Addiction, Executive Function, and Mother-Child Relationships in Early Childhood Emotion Dysregulation. *JPUD - Jurnal Pendidikan Usia Dini*, *17*(2), 241–266. https://doi.org/10.21009/jpud.172.05

Wibowo, N. O., & N.F, S. (2023). Literasi Digital Orang Tua Siswa Sekolah Dasar (Studi Deskriptif Kualitatif pada Orang Tua Siswa Sekolah Dasar di Kota Surabaya dalam Mengontrol Penggunaan Smartphone). *JIIP - Jurnal Ilmiah Ilmu Pendidikan*, *6*(7), 4859–4864. https://doi.org/10.54371/jiip.v6i7.2363

Yuniarni, D. (2019). The Teacher's Perception to the Impact of Playing Gadget for Early Childhood's Mental Health. *JETL (Journal Of Education, Teaching and Learning)*, *4*(2), 350. https://doi.org/10.26737/jetl.v4i2.1648

Yusuf, M., Witro, D., Diana, R., Santosa, T. A., & Alwiyah, A. (2020). Digital Parenting to Children Using The Internet Digital Parenting Kepada Anak Dalam Menggunakan Internet. *Pedagogik Journal of Islamic Elementary School*, *3*(1), 1–14.