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The Impact of Gadget Using Analytical on Toddler (Research In TK Tunas Harapan Salo)

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ABSTRACT

The use of gadgets, especially smartphones and tablets, for young children has now become a public concern. This is because gadgets have become a necessity for society and even children. Gadgets are technology that have very interesting applications and features, such as games and videos which children really like. Most parents do not supervise and regulate their children's use of gadgets and sometimes parents are not aware that their children are addicted to gadgets. This research aims to analyze the influence of gadget use on young children, with research subjects being carried out on Tunas Harapan Salo Kindergarten students. The results of the research show that the negative impacts are more pronounced in Tunas Harapan Kindergarten students where they show attitudes such as being easily emotional, imitating movements and language in the games or videos they see, and when using gadgets, they don't care and ignore the surrounding conditions, they don't care. care if called while playing gadget. However, even though the negative impacts are more visible, there are several positive impacts from using gadgets, namely that they can learn traditional gymnastics and dance movements through YouTube videos

1. INTRODUCTION

1.1 Background

Currently, technology has become a very important need, this is because technology is used in almost every daily activity (Sari, 2020). One of the technological products that is a major need for some people is gadgets (Valacich, Wang, & Jessup, 2018) (Al Sagr & Al Sagr, 2020). Gadget is a term in English which is defined as a small electronic device with various functions. Gadgets can be computers or laptops, tablet PCs, or cell phones or smartphones that are able to meet user needs with complete features, camera quality, ease of using applications, and affordable prices (Setiani, 2020) (Dikhorir et al., 2020) (Suzana et al. al., 2020). Gadgets can be owned by anyone, even young children. They are no less intelligent than adults in using gadgets (Vicky, Adrianna, & Phan, 2023).

Golden Age is a term for early childhood aged around 0-6 years (Siregar & Yaswinda, 2022). During this period, children experience development at the stage of exploring and interacting directly with the surrounding environment. They are usually happy with new things obtained through playing activities (Nirwana, Mappapoleonro, & Chairunnisa, 2018), at this age children's growth and development develops rapidly (Siregar & Yaswinda, 2022). The very fast process of growth and development causes each child to have unique characteristics (Dahl, Allen, Wilbrecht, & Suleiman, 2018) (Willoughby, 2016) (Rukmana, Ainy Fardana, Dewanti, & Mujtaba, 2021). There are several aspects of development in children, namely physical motoric development, cognitive development, social development, language development, emotions, personality, art, morals and religion (Setiani, 2020) (Siregar & Yaswinda, 2022).

The use of gadgets in everyday life can have an impact on children's behavior, intelligence and cognition (Al Sagr & Al Sagr, 2020) (Vicky et al., 2023). Cognitive development is a very important aspect because it can be translated into how children behave and how they respond to problems. Good stimulation is very important in developing children's cognitive abilities, one of which is through play (Siregar & Yaswinda, 2022).

Children who frequently use technology often don't care about their surroundings (Wilmer, Sherman, & Chein, 2017). They prefer playing with gadgets rather than playing with friends in the playground or in the surrounding environment (Suhana, 2018). This causes a decrease in social interaction between children and their environment (Neufeld & Mate, 2013). Excessive use of gadgets can also make children addicted and can have a bad impact on daily behavior and even mental health such as anxiety, depression, attention deficit disorders, impact on children's health because when children use gadgets, children pay less attention to body posture, screen brightness, distance between screens and eyes so that it can affect long-term vision problems (Hidayati &

Zaman, 2021)(Subrahmanyam, Greenfield, Kraut, & Gross, 2001), cause learning disorders and will also have an impact on children's growth such as delays in language development, especially in early childhood (Al Sagr & Al Sagr, 2020)(Nirwana et al., 2018)(Hegde, Suman, Unais, & Jeyakumar, 2019).

The use of gadgets can also act as a tool that can work well in children's learning process, this is because for them using gadgets is interesting and exciting. Equipped with sounds, colors and various interesting images (Vicky et al., 2023), it makes it easier for children to be creative and hone their intelligence. Gadgets can also be used as an application for coloring, learning to read and write letters, where children no longer learn to read and write using books or paper. Children will also be more enthusiastic about learning because applications like this are usually equipped with an attractive appearance. Apart from that, children's imagination skills are also honed (Sari, 2020). Several studies that have been conducted state that the use of gadgets in the school curriculum can help make the learning process more enjoyable (Suzana et al., 2020). Based on the explanation above, it can be concluded that the use of gadgets can have both positive and negative impacts on young children.

1.2 Research Purposes

This research aims to analyze the problem of gadget dependence in children as well as the impact of excessive use of gadgets and whether it has a positive or negative impact on the growth and development of early childhood. This can provide information to parents about the benefits of using gadgets, the dangers of using gadgets and what criteria are required. It is said that children are addicted to gadgets

2. LITERATURE RIVIEW

2.1. Gadget

Currently is an era where technology is developing very rapidly and has even become a part of life. One of the most frequently used technologies is Gadgets. Gadgets are one of the devices loved by millennials (Khan, 2018). The category of gadgets most frequently used by children is smartphones or tablets (Hidayati & Zaman, 2021) (Akram & Kumar, 2017) (Verma, Suman, & Verma, 2018). Gadgets that are more interesting than books can help improve children's cognitive skills and learn faster (Sundus, 2018).

Gadgets are electronic devices that have many functions that can help prepare for work, fill free time, make it easier to find information and even provide entertainment. Gadgets provide various facilities such as communication media, news, can access knowledge, not only that, gadgets provide games and YouTube, so gadgets are very popular with many groups (Siregar & Yaswinda, 2022). The game features available on gadgets not only function for entertainment, but can also provide learning, such as how to solve problems in the

game, create creativity and improve children's cognitive abilities (Vicky et al., 2023).

2.2. Early Childhood

The Golden Age period is a period where children's development develops rapidly and must be developed well, this period occurs in children aged 0-6 years, at this age children's development is very rapid, they are very sensitive and have potential in something, children have a sense of desire. very big tofu. It can be seen that children often ask questions about what they see. Apart from that, children have their own characteristics which originate from genetic factors and environmental factors (Siregar & Yaswinda, 2022).

The very rapid growth process makes early childhood children have unique characteristics, where psychologically early childhood children have different characteristics from children over 8 years old. Some of the characteristics of early childhood are that they see the world from the perspective of curiosity and their own interests, have a high curiosity, believe that the world is full of interesting and amazing things, are rich in imagination and fantasy, and have the power to short concentration so they always quickly divert their attention to other activities, unless the activity is an interesting and varied activity (Sari, 2020).

2.3. The Role of Parents in Supervising Children's Use of Gadgets

The use of gadgets for young children can have positive and negative impacts depending on supervision by parents or people closest to them (Siregar & Yaswinda, 2022). Excessive use of gadgets must be controlled by parents. Namely by setting strategies or time limits for children's use of gadgets (Khan, 2018). Children who are addicted to gadgets can be influenced by their parents' behavior when parents are fixated on their gadgets. Seeing parents who are constantly busy with their gadgets can be interpreted by children as permissible behavior. Working or busy parents may not be able to devote much time to their children (Khan, 2018).

Most parents agree that gadgets influence children's eating habits, children are often restless, have difficulty calming down and act aggressively, are sensitive to simple things and prefer to stay at home rather than play with friends (Suzana et al., 2020). Based on the results of the KPAI survey (2020), parents usually rarely supervise their children when using gadgets, this can increase the negative impact of using gadgets on children because children cannot control themselves. Therefore, parents are responsible for guiding and accompanying children in using gadgets to avoid gadget addiction and other negative things (Rukmana et al., 2021).

3. RESULT AND DISCUSSIONS

This research was conducted with the aim of finding out the impact of gadget use on young children. The method used in this research is qualitative research,

where the data collection system in this research comes from interviews conducted with several respondents. Respondents consisted parents of Tunas Harapan Salo Kindergarten students. To examine the responses of respondents, the data collection technique was carried out through interviews and then analyzed to determine the impact of gadget use on early childhood in Tunas Harapan Salo Kindergarten.

Observations of the impact of gadget use were carried out on children aged 1 – 5 years. Data collection was carried out by means of interviews with parents of students, with information

4 = Always

3 = Often

2 = Sometimes

1 = Never

One of the interview results is presented in Table 1

Table 1. Interview Results

NO	STATEMENT	Answers			
		1	2	3	4
1	Doesn't like reading		✓		
2	Addiction to playing online games	✓			
3	Used to play YouTube (memorize tahfidz, songs)			✓	
4	Panic if there is no cellphone beside him		✓		
5	Used to play offline games		✓		
6	Lack of concentration		✓		
7	Lazy to study				✓
8	No matter the surrounding environment		✓		
9	Doesn't respond when asked to communicate		✓		
10	Irregular sleep		✓		
11	Polite language/bullying		✓		
12	Unable to control emotions		✓		
13	Following a fight scene				✓
14	Improved cognitive skills		✓		

Based on interviews conducted with 110 parents, it was found that the negative impacts of using gadgets were greater than the positive impacts. This is because, there are still many parents who allow and even give gadgets to their children without supervision, which causes children to become addicted to using gadgets.

However, behind the negative impacts that are often found, parents also say that there are also positive impacts in using gadgets, namely as a learning medium such as learning foreign languages, memorizing short letters, prayer movements, learning the history of the prophet, counting, singing and imitating. Gymnastics or dance moves from videos.

4. CONCLUSION

A gadget is a small piece of technology that has a special function, but is often associated as an innovation or new item. Gadgets are always updated both in terms of features and applications, this makes children more interested in using gadgets. The role of parents is very important in avoiding negative impacts or using gadgets for positive things. Steps that parents must take are to adjust the child's age to the gadget's features by using special applications for children and avoid addiction by providing limits or rules for using the gadget. Parents can also use gadgets as a learning

medium for children, because small children absorb things very quickly. what they see and hear, so that using learning videos can increase children's interest in learning. Based on research conducted at Tunas Harapan Kindergarten, it was found that children have experienced an addiction to using gadgets, where they get emotional easily, imitate scenes and language they see in videos or games, and don't care about their surroundings..

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6. REFERENCES

- Akram, W., & Kumar, R. (2017). A Study on Positive and Negative Effects of Social Media on Society. *International Journal of Computer Sciences and Engineering*, 5(10), 351–354. <https://doi.org/10.26438/ijcse/v5i10.351354>
- Al Sagr, N. A., & Al Sagr, A. N. (2020). The effect of electronics on the growth and development of young children : A Narrative Review. *Journal of Health Informatics in Developing Countries*, 14(1), 1–13. Retrieved from <https://jhdc.org/index.php/jhdc/article/view/250>
- Dahl, R. E., Allen, N. B., Wilbrecht, L., & Suleiman, A. B. (2018). Importance of investing in adolescence from a developmental science perspective. *Nature*, 554(7693), 441–450. <https://doi.org/10.1038/nature25770>
- Dikhorir, A., Karim, A., Irfan, A., Rianto, A., Wildanu, E., Hidayat, R., ... Endah. (2020). Phubbing and social interaction: An analysis of smartphone usage in higher education. *Journal of Advance Research in Dynamical & Control Systems*, 12(6), 2325–2334. <https://doi.org/10.5373/JARDCS/V12I6/S20201191>
- Hegde, A. M., Suman, P., Unais, M., & Jeyakumar, C. (2019). Effect of Electronic Gadgets on the Behaviour, Academic Performance and Overall Health of School Going Children- A Descriptive Study. *Journal of Advanced Medical and Dental Sciences Research*, 7(1), 100–103. <https://doi.org/10.21276/jamdsr>
- Hidayati, N., & Zaman, B. (2021). Is it Necessary to Ban Gadget in Early Childhood? *Proceedings of the 5th International Conference on Early Childhood Education (ICECE 2020)*, 538(Icece 2020), 270–273. <https://doi.org/10.2991/assehr.k.210322.057>
- Khan, F. bee. (2018). A Study on Consumer Perceptions with Reference to online Grocery Stores. *Multidisciplinary Peer Reviewed Journal*, 3(3), 153–164.
- Neufeld, G., & Mate, G. (2013). Hold On to Your Kids: Why Parents Matter More Than Peers. *Vintage Books Canada*. <https://doi.org/10.1177/019263650408864108>
- Nirwana, Mappapoleonro, A. M., & Chairunnisa. (2018). Indonesian Journal of Early Childhood The Effect of Gadget Toward Early Childhood Speaking Ability. *Indonesian Journal of Early Childhood Education Studies*, 7(2), 85–90.
- Rukmana, N. I. N., Ainy Fardana, N., Dewanti, L., & Muhtaba, F. (2021). Does the Intensity of Gadget Use Impact Social and Emotional Development of Children aged 48-72 Months? *Al-Athfal: Jurnal Pendidikan Anak*, 7(2), 135–144. <https://doi.org/10.14421/al-athfal.2021.72-04>
- Sari, D. N. (2020). An Analysis of the Impact of the Use of Gadget on Children's Language and Social Development, 449(Icece 2019), 201–204. <https://doi.org/10.2991/assehr.k.200715.041>
- Setiani, D. (2020). The Effect of Gadget Usage on the Social Development of Children Aged 3-5 Years: Literature Review. *STRADA Jurnal Ilmiah Kesehatan*, 9(2), 1732–1739. <https://doi.org/10.30994/sjik.v9i2.526>
- Siregar, A. O., & Yaswinda, Y. (2022). Impact of Gadget Use Cognitive Development. *Proceedings of the 6th International Conference of Early Childhood Education (ICECE-6 2021)*, 668, 168–172. <https://doi.org/10.2991/assehr.k.220602.035>
- Subrahmanyam, K., Greenfield, P., Kraut, R., & Gross, E. (2001). The impact of computer use on children's and adolescents' development. *Journal of Applied Developmental Psychology*, 22(1), 7–30. [https://doi.org/10.1016/S0193-3973\(00\)00063-0](https://doi.org/10.1016/S0193-3973(00)00063-0)
- Suhana, M. (2018). Influence of Gadget Usage on Children's Social-Emotional Development. *International Conference of Early Childhood Education (ICECE 2017)*, 169(Icece 2017), 224–227. <https://doi.org/10.2991/icece-17.2018.58>
- Sundus, M. (2018). The impact of using gadgets on children. *Journal of depression and anxiety*, 7(1), 1-3.
- Suzana, S., Munajim, A., Casta, C., Pratama, G., Sulaeman, E., Sukarnoto, T., ... Islam Bunga Bangsa Cirebon, A. (2020). Gadget and the Internet for Early Childhood Distance Learning. *Gadget and the Internet for Early Childhood Distance Learning*, 17(7), 1–10. Retrieved from <https://archives.palarch.nl/index.php/jae/article/view/3518>
- Valacich, J. S., Wang, X., & Jessup, L. M. (2018). Did I Buy the Wrong Gadget? How the Evaluability of Technology Features Influences Technology Feature Preferences and Subsequent Product Choice, 42(2), 1–13.
- Verma, S., Suman, N., & Verma, P. (2018). Effect of electronic gadgets on cognitive milestones of children below 2 years of age. *International*

- Archives of Integrated Medicine*, 5(6), 52–54.
Retrieved from <http://iaimjournal.com/>
- Vicky, D., Adrianna, H., & Phan, B. (2023). Use of Gadgets by Early Childhood in the Digital Age to Increase Learning Interest. *Sciencetechno: Journal of Science and Technology*, 2(1), 17–34.
<https://doi.org/10.55849/sciencetechno.v2i1.58>
- Willoughby, M. (2016). *Measurement of Executive Function in Early Childhood. Measures of Social and Emotional Development.*
<https://doi.org/10.4324/9780203764244>
- Wilmer, H. H., Sherman, L. E., & Chein, J. M. (2017). Smartphones and cognition: A review of research exploring the links between mobile technology habits and cognitive functioning. *Frontiers in Psychology*, 8(APR), 1–16.
<https://doi.org/10.3389/fpsyg.2017.00605>