

Impact of Gadget Usage on Early Childhood Characteristics in Ketileng Village, Bojonegoro

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Abstract

This research aims to investigate the impact of gadget use on the characteristics of early childhood in Ketileng village, Malo District, Bojonegoro Regency. In this digital era, children are increasingly exposed to gadgets from an early age. This research uses a qualitative approach with observation and interview methods to evaluate the impact of gadget use on the characteristics of early childhood in Ketileng Village, Malo District, Bojonegoro Regency. The research results show that gadget use can positively and negatively impact children's development. Positive impacts include increased technology skills, information access, and cognitive abilities. However, negative impacts were also identified, including decreased social abilities, lack of physical interaction, and potential dependence on technology. The critical role of parents and educators in supervising, guiding, and directing gadget use is highlighted in this research. Awareness of time limits, appropriate content, and active supervision of children's online activities can help reduce the negative impacts of gadget use. This research provides in-depth insight into the impact of the relationship between gadgets and early childhood development. The practical implications of these findings can be used as a basis for developing guidelines for balanced gadget use and supporting children's holistic growth and development.

Keywords: *Gadget, Characteristic, Early Childhood*

Abstrak

Penelitian ini bertujuan untuk mengetahui pengaruh penggunaan gadget terhadap karakteristik anak usia dini di Desa Ketileng Kecamatan Malo Kabupaten Bojonegoro. Di era digital saat ini, anak-anak semakin banyak terpapar gadget sejak dini. Penelitian ini menggunakan pendekatan kualitatif dengan metode observasi dan wawancara untuk mengevaluasi dampak penggunaan gadget terhadap karakteristik anak usia dini di Desa Ketileng, Kecamatan Malo, Kabupaten Bojonegoro. Hasil penelitian menunjukkan bahwa penggunaan gadget dapat memberikan dampak positif dan negatif terhadap tumbuh kembang anak. Dampak positifnya antara lain peningkatan keterampilan teknologi, akses informasi, dan kemampuan kognitif. Namun dampak negatif juga teridentifikasi, antara lain penurunan kemampuan sosial, kurangnya interaksi fisik, dan potensi ketergantungan terhadap teknologi. Pentingnya peran orang tua dan pendidik dalam mengawasi, membimbing dan mengarahkan penggunaan gadget disorot dalam penelitian ini. Kesadaran akan batasan waktu, konten yang sesuai, dan pengawasan aktif terhadap aktivitas online anak dapat membantu mengurangi dampak negatif penggunaan gadget. Penelitian ini memberikan wawasan mendalam mengenai dampak hubungan gadget dengan tumbuh kembang anak usia dini. Implikasi praktis dari temuan ini dapat dijadikan dasar untuk mengembangkan pedoman penggunaan gadget yang seimbang dan mendukung tumbuh kembang anak secara holistik.

Keywords: *Gawai, Karakteristik, Anak Usia Dini*



INTRODUCTION

Gadgets are electronic devices in the Indonesian language called "gawai." What differentiates gadgets from electronic devices is the element of "novelty," which means that day-to-day gadgets always use the latest technology to make life more practical. Gadgets are devices related to the development of today's technology, including tablets, smartphones, notebooks, smart televisions, and other devices. Gadgets can be separated again from life humans, starting from children until adults use gadgets in their daily lives—lots from children's early age, already given their gadgets. Gadgets have concessions for life by using many apps on the internet device; for example, *Instagram*, *Facebook*, *Twitter*, *Line*, *Telegram* and *TikTok* are available to connect with many people and add friendships with various corners of the world.¹ Then, there is *YouTube video and short*, *Instagram reels*, *TikTok video* which has many various videos that can be used for entertainment. Those applications can be easily downloaded from gadgets such as *the Play Store* or *Apple Store*; even children can use them. Although there are many benefits to using gadgets, there are also negative impacts from using gadgets by users if they are not controlled. The features available on the gadget can also be used to create a gate for children. For access, something is missing by age and can also bother its development.

Addicted gadgets are not only experienced by adults but also by many children who use a gadgets. This is aligned with a statement from the Chairman of the Child Protection Agency (*Lembaga Perlindungan Anak*) that stated that since 2013, that handled 17 cases of addicted child gadgets. Likewise, the National Commission for Child Protection (*Komisi Nasional Perlindungan Anak*) has been in place since 2016 and has handled 42 cases of experienced child-addicted gadgets.² A gadget becomes an exciting thing for children because the gadget provides dimensions, movement, color, sound, and song at a time in device for various objectives like playing games, watching videos, listening to music, chatting, and browsing websites.³

Exposure to the children, the *gadgets* raises various questions and concerns about the impact. This study introduced at KB Al-Wildan in Ketileng Village, Malo District, Bojonegoro Regency, it is known that children aged 3-5 years are already using gadgets. They are not owned by the child alone but by their parents' property or their sister and family. The Canadian Academy of Pediatrics confirms that children aged 0-2 years cannot be exposed to technology.

¹ Taufiq Ziaul Haq, "Pola Asuh Orang Tua Dalam Perilaku Sosial Generasi Millennial Ditinjau Dari Neurosains," *Al-Mada: Jurnal Agama, Sosial, Dan Budaya* 3, no. 1 (2020): 88–108, <https://doi.org/10.31538/almada.v3i1.609>.

² Kominfo, "Gawai Addiction Threatens Children," 2018, https://www.kominfo.go.id/content/detail/13547/kecanduan-gawai-ancam-anak-anak/0/sorotan_media.

³ Muhammad Zaini and Soenarto Soenarto, "Parents' Perceptions of the Presence of the Digital Technology Era Among Early Childhood," *Obsession Journal: Journal of Early Childhood Education* 3, no. 1 (2019): 254, <https://doi.org/10.31004/obsesi.v3i1.127>.

The same children aged 3-5 years are limited to using technology for only one hour per day, and children aged 6-18 years are limited to 2 hours per day.⁴

The use of gadgets that exceed the time limit increases the risk to health, so the role of parents in accompanying and supervising the use of gadgets is essential. The parent is the closest to more children —lots of use-up time with children at home and their tasks. To control and supervise the use of gadgets by children, choose any content that is allowed to be seen by children and which ones are not, and make sure that the child's age views the content. No contain pornography or violence is also its use no exceeds the permitted time limit. We can find in society that there are still lots of parents who, with it being easy to give *gadgets* to children, choose to give *gadgets* to their son rather than see their son cry or use them as replacement nannies for their son because parents are too busy with work.⁵ Based on the introduction of this study, the use of gadgets by children aged 3-5 years who live in the village Ketileng Malo District, Regency Bojonegoro.

The research aims to analyze the impact of gadgets on children's early age, emerging the challenges and opportunities and giving a base for developing more practical guidelines for managing the use of gadgets in children age. The questions were: What impact do gadgets have on children's early ability, language, and communication?; What is the role of parents and educators in managing the use of gadgets in the development of children?

This study focuses on the concrete impact of gadgets on children. It involves cognitive, social, and behavioral development aspects and the role of parents and policy in context. Objective study: To describe the positive impact of using gadgets on children aged and describe the role of parents and educators in managing *gadgets* in the development of children.

The impact of the using gadgets on children has many benefits and is suitable for the public and developed children alone. Several benefits from a study that understanding more profound that is study can give more understanding of how the early use of gadgets in children age early can influence various aspects of development, like cognitive, social, emotional, and physical, as well as prevention impact negative with understanding potency impact harmful use of gadgets in children age. This research can help in designing prevention strategies for reduce risk problem possible health and development arise and also can increase parental awareness about potency risks and benefits from using gadgets in children age.

⁴ S Anggraeni, "The Influence of Knowledge About the Impact of Gadgets on Health on Gadget Using Behavior among Students at SDN Kebun Bunga 6 Banjarmasin," *Faletehan Health Journal* 6, no. 2 (2019): 64–68, <https://doi.org/https://dx.doi.org/10.33746/fhj.v6i2.68>.

⁵ Khoirul Anam Adi Kusmanto, Imam Muchlisin, "Peran Orang Tua Dalam Meningkatkan Hasil Belajar Siswa," *Al-Mada: Jurnal Agama Sosiasal Dan Budaya* 5, no. 3 (2022): 374–82, <https://doi.org/https://doi.org/10.31538/almada.v5i3.2645>.

This research is significant for understanding the role of gadgets in early childhood development and giving a practical guide for parents, educators, and takers policy.

RESEARCH METHODS

Increasing technology Development makes it easier for humans to do many things. One of the results of advances in information and communication technology is gadgets. According to Manumpi,⁶ Gadget is a term used to refer to several types of technological devices that are increasingly developing rapidly and have special functions, such as smartphones, iPhones, computers, and tabs. Smartphones are gadgets people widely use, and almost every home has a smartphone. Gadgets are something that many people, both adults and children, love because of their sophistication. Children are introduced by their parents to gadgets, many even before they can speak and read. In this research, Jean Piaget's cognitive development theory shows that intelligence will change as the child grows. Children's cognitive development is not only about gaining knowledge; children must also develop or build their mentality, and through behavior, a person will experience mental processes that can later improve the ability to compare, assess, and respond to stimuli before a reaction occurs. This approach emphasizes the contents of the human mind to gain experience, moral standards, and understanding; as people age, they will have more experience and understanding regarding life. There are limits to the use of gadgets among children so that negative things do not happen that can interfere with children's development and growth; as explained, there are limits to screen time or duration for viewing digital screens on gadgets or television for children under five years.⁷ States that children aged 1-4 years should not be more than one hour.⁸ It also revealed that the effect of screen use on a person depends on several factors, and the most crucial factor is how long the screen time is spent looking at the screen. Long-term use can affect the frontal cortex of the brain and has almost the same effect as cocaine.

Using gadgets on children positively impacts children's motor skills and cognition. They can also use gadgets as entertainment and to train children in the spirit of competition. The positive impacts of gadgets can be felt if their use is carried out with control, not excessively; the choice of content that is watched is positive, such as information that can provide new knowledge for

⁶ Anggraeni, "Pengaruh Pengetahuan Tentang Dampak Gadget Bagi Kesehatan Terhadap Perilaku Penggunaan Gadget Pada Siswa SDN Kebun Bunga 6 Banjarmasin."

⁷ Carla Lanca and Seang-Mei Saw, "The Association between Digital Screen Time and Myopia: A Systematic Review.," *Ophthalmic & Physiological Optics : The Journal of the British College of Ophthalmic Opticians (Optometrists)* 40, no. 2 (March 2020): 216–29, <https://doi.org/10.1111/opo.12657>.

⁸ S. Anil, A., & Shaik, "Third Eye Syndrome- a Gadget Screen Addiction among Medical Professionals in Chennai, Tamilnadu, India," *National Journal of Research in Community Medicine* 8, no. 3 (2019): 249–54, <https://doi.org/https://dx.doi.org/10.26727/njrcm.2019.8.3.249-254>.

children. The content they see can be exciting, such as learning how to count, read, or contain stories.⁹

Gadgets have many benefits for humans, such as entertainment and increasing knowledge. However, gadgets also negatively impact their users, especially young children still in the growth and development stage; gadgets can negatively affect children's motor skills and cognitive and social-emotional effects. Warisya revealed that gadgets have negative things, such as the rise of fraud in the mass media, the number of children who are addicted, and the dangers of radiation, which can cause vision problems. It also revealed that gadgets can affect children's speaking abilities, character, the quality of children's learning, attention disorders, and can even cause depression. Parents must understand the substantial negative impacts of using gadgets without parental control.¹⁰ Parental awareness of the importance of the parent's role can help prevent negative impacts and the use of gadgets by children. This is also confirmed by the fact that the reason why children are addicted to playing with gadgets is that their parents are too busy, and they often see their parents using gadgets because the parents are busy, so the children are left to play with gadgets.¹¹ Even though early childhood is an essential age in a child's life, parents are therefore obliged to ensure that children can grow and develop well; there are no things that hinder their characteristics, such as avoiding the adverse effects of using gadgets. Even though gadgets have many benefits, they are also beneficial for children. At an early age, gadgets are not needed; it would be better if children could learn and play directly in their environment rather than in front of gadgets.

This research uses a qualitative approach to exploring and understanding the meaning several individuals or groups ascribe to social or humanitarian problems. This qualitative research process involves essential efforts, such as asking questions and procedures, collecting specific data from participants, analyzing data inductively, starting from specific themes to general themes, and interpreting the meaning of the data. Based on the assumptions and opinions above, researchers used qualitative research methods because they are more suitable for gathering information and discussing problems or matters related to the use of gadgets in early childhood. Data collection uses various means like observation, interviews, and documentation.¹²

⁹ Sundus M, "The Impact of Using Gadgets on Children," *Journal of Depression and Anxiety* 07, no. 01 (2017): 1–3, <https://doi.org/10.4172/2167-1044.1000296>.

¹⁰ J. Syifa, L., Setianingsih, E. S., & Sulianto, "Dampak Penggunaan Gadget Terhadap Perkembangan Psikologi Pada Anak Sekolah Dasar," *Jurnal Ilmiah Sekolah Dasar* 3, no. 4 (2019): 538, <https://doi.org/https://doi.org/10.23887/jisd.v3i4.22310>.

¹¹ F. H Arnani, N. P. R., & Husna, "Perbedaan Kecenderungan Adiksi Gadget Siswa Sekolah Dasar Ditinjau Dari Jenis Kelamin," *Psycho Idea* 19, no. 1 (2021): 57–64, <https://doi.org/http://dx.doi.org/10.30595/psychoidea.v19i1.7489>.

¹² Jhon W. Creswell, *Research Design Pendekatan Kualitatif, Kualitatif, Dan Mixed.*, Pustaka Belajar, vol. yogyakarta, 2010.

According to the state¹³, determining the research location is done by considering substantive theory and exploring the field to find conformity with the reality in the field. Meanwhile, geographical and practical limitations, such as time, costs, and energy, must be considered when determining the research location. This research will be implemented at KB Al-Wildan, Ketileng Village, Malo District, Bojonegoro Regency.

Research Subject refers to the person/individual or group used as the unit or unit (case) being studied. The sources of information are informants who are competent and relevant to the research. Participants are the people or communities being studied. Subjects were taken by purposive sampling or using specific considerations: teachers, parents, and early childhood students at KB Al-Wildan, Ketileng Village, Malo District, Bojonegoro Regency

. The data sources include humans, namely the principal, deputy principal, teachers, and students. The data source is the circumstances of the learning process by teachers and students. Documents related to this research needed to discuss this research by several techniques:

The first is observations,¹⁴ a data collection tool that systematically observes and records the investigated symptoms. Data observation is an excavation or direct observation of early childhood at KB Al-Wildan, Ketileng Village, Malo District. The researcher used participant observation; the researcher was involved with the daily activities of the person being observed. Researchers can observe directly, see what these children do, and see their learning process at school.

The second is an interview, a conversation with a specific purpose. The conversation is carried out by two parties, namely the interviewer, who asks questions, and the interviewee, who provides answers to these questions. The type of interview used is a semi-structured interview. This interview aims to find problems more openly, where the party being interviewed is asked for their opinions and ideas, and the interviewer wants to ask more in-depth on a particular subject. The results of the interview data include the teacher's ability to develop the curriculum, understand student characteristics, evaluate learning, manage learning to develop cognitive aspects, teacher obstacles in managing learning, student obstacles in developing cognitive aspects, and teacher efforts in developing student cognitive.

RESULTS AND DISCUSSION

According to the theory of cognitive development by Jean Piaget, when a child is familiar with and addicted to gadgets, it will disrupt their cognitive abilities because, at 3-6 years, children cannot control their emotions and think logically. Following this, some of the impacts

¹³ Lexy J. Moleong, *Metode Penelitian Kualitatif*, PT.Remaja Rosdakarya, vol. bandung, 1989.

¹⁴ Cholid Narbuko. Dkk., *Metodologi Penelitian, Bumi Aksara*, vol. jakarta, 2003.

caused by using gadgets in children age early are based on interviews and observations conducted at KB Al-Wildan Ketileng Village Malo District, Regency Bojonegoro.

The usage of Gadgets will positively impact one of the users, which can add knowledge. The observation shows that early use of gadgets can add knowledge to children. From application learning, children can learn shapes, colors, letters of the alphabet, and hijaiyyah.

The results of an interview with one parent of a child at an early age said: "Since I gave him a smartphone, I have already known the previous color. He does not yet remember me as a teacher and can not differentiate between colors and other colors; with the application of learning by smartphone, he has already distinguished and knows colors now, not only the letters of the alphabet and letters Jiraiya. There are also numbers in Indonesian and Arabic, so he was happy to study while playing."

Moreover, the teacher said, "There is impact positive that can be taken from the use of gadgets; for example, Santi, one of KB Al-Wildan's students, at that time joined and accompanied gymnastics material songs children from YouTube; he was very actively following exercises with cheerful while with follow sing-song." From the statement, it can be concluded that using gadgets with excellent and deep parental supervision will positively impact children's early age, especially in learning knowledge and insight and increasing creativity in children. Parent-child age Early others also said the same thing about the impact positive use of gadgets as event entertainment that says: "Sometimes I surprised suddenly hear child I laughed. He is currently playing on his cell phone and watching funny videos." It shows that using gadgets as event entertainment is one of the ways that the child feels positive feelings at an early age at KB Al-Wildan Ketileng Village.

Besides impact, results also negatively impact children if using gadgets too excessively. Most of the time spent playing with gadgets has an impact on the healthy physique, the eyes becoming dry and painful headaches, pain in the neck, as well as lack of lust, eating, and sleep disorders. Gadget addiction can also bother mental health. Excessive use of gadgets impacts society and the environment; children do not have much time to play with friends or family. There are many changes that parents feel the moment a child becomes addicted.

Interview result from one of the parent's child age, Dini said: "When I work at home, sometimes my child disturbs me neither can concentration in my work, so I give him handphone, that rather continues until now, for example, when I want to cook or wash clothes, already know that and straight away ask for the handphone and I do not like him crying, but make it a habit that difficult to lose it, and that I overcome ask to play on handphone." From the statement, the child already has a characteristic dependency on one type of gadget or smartphone. Children also become lazy when doing activities like playing and seeing disruptions

to health children early. So, children tend to be aloof and lack interaction with their friends and family because they spend time playing with gadgets. This research shows how a child sees and imitates parental behavior in a family.¹⁵ The data confirmed that the child's growth period will always be noticed in the attitude and speech of parents,¹⁶ and parents become roles and figures. The children emulate them, which is how his parents always had fun in front of the gadget.

The research analysis shows the impact of using gadgets on the children of KB Al-Wildan, Ketileng Village, Malo District, Bojonegoro Regency; according to the development Cognitive theory from Jean Piaget, these gadgets are very impactful to the development of cognitive childhood. Gadgets are not controlled, and there needs to be more substantial supervision from parents and the environment around them. According to Jean Piaget's theory, the child is aged 2-7 years, including preoperational stages, when the child will develop his abilities in remembering and imagining. In addition, the child tends to copy how somebody speaks or behaves, which is necessarily known in this background. The child cannot use logic, change, combine, or separate thoughts or ideas. So, this study can provide a better understanding of the impact of using gadgets on children at an early age.

CONCLUSION

Gadgets' benefits have adverse effects, such as becoming something exciting for the child, and their diverse features are equipped with colors, images, and sounds available for attention. The child often sees his parents busy by playing with gadgets. A child is capable of downloading applications himself by seeing his parents. Ordinary children use gadgets to play games, watch YouTube videos, and study with educational games and videos. Children experience problems using gadgets because the parents lack the accompanying and control to use them and may not yet understand the negative impact of gadgets on physical and mental children. Parents play a significant role in controlling, supervising, and accompanying the use of gadgets by children so that they can spared from possible effects. Therefore, a balanced and responsible approach to introducing and managing gadgets in children is essential for supporting the development of children in a holistic way.

¹⁵ U Umayyah et al., "Parent Judgment Factors: A Phenomenological Study of Early Marriage in Kunjorowesi Village," *Dirosatuna: Journal of Islamic Studies* 5, no. 1 (2022): 42–49, <https://doi.org/https://doi.org/10.31538/drstn.v5i1.3649>.

¹⁶ M. N. A. H Suwaid, *Prophetic Parenting: Cara Nabi SAW Mendidik Anak.*, Pro-u Media, 2010.

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