

The Effect of Gadget Usage on the Social Development of Children Aged 3-5 Years: Literature Review

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ABSTRACT

The gadget is a term in English which defines a small electronic device with various functions. The use of gadgets has both positive and negative impacts. This study uses a Systematic Literature Review, a synthesis of systemic, precise, comprehensive literature studies by identifying, analyzing, evaluating through collecting existing data with an explicit search method and involving a critical review process in selecting the studies. The data used by 7 national journals were obtained from the results of screening several journals from Google Scholar and the National Library of Indonesia. Based on the results of the journals collected and the author's analysis, it was found that there was a significant influence between the use of gadgets on the social development of children aged 3-5 years. For further researchers, it is hoped that they can research with two different groups, namely the control group that uses and does not use gadgets.

Keywords: Gadgets, Social Development, Preschool Age

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BACKGROUND

Early childhood is children aged from birth to 6 years of age (Undang-Undang No 20, 2003). Based on statistical data on early childhood education published by the Ministry of Education and Culture Indonesia in 2017, there were 8,027,829 early childhood education students in Indonesia. This data is the sum of the total number of students in 34 provinces in Indonesia (Suhardi, 2017).

Development is a change that is both quantitative and qualitative. It is the ability to increase abilities (skills) or more complex body structures and functions, in an orderly and predictable pattern, as a result of the maturation process (Soetjningsih, 2016). There are 7 kinds of developmental aspects in children, namely physical and motoric, cognitive, social development, language development, emotions, personality and art, moral and religious appreciation (Latifa, 2017). The social development of the child begins when the child is born in the world, it is proven that a child who cries is in the context of making contact/relationship with other people, or the child appears to be holding activities of groping, smiling, if it is stimulated and reprimands from outside (Sinta, 2018).

Growth and development can be influenced by two factors, namely internal and external factors. External factors, namely the environment, determine the extent to which each child can fulfill their potential (John Rendle Short, 2010). These environmental factors include the biophysical-psychosocial environment, which includes the family, the surrounding community, the physical environment, biology, culture, economy, politics, and current technological developments. Children's growth and development that is influenced by the environment can be temporary or permanent and can affect the speed and quality of children's development, one of which is the use of gadgets (Latifa, 2017).

In the era of globalization like now, someone's media for social interaction, namely to make social contact or communicate with one another is not difficult, only by using gadgets one can interact with one another according to Osland in (Novitasari, 2016). The gadget is a term in English which defines a small electronic device with various functions. The gadgets themselves can be in the form of computers or laptops, tablet PCs, as well as cell phones or smartphones (Novitasari, 2016). The use of gadgets has both positive and negative impacts. As for the positive impact of gadgets, namely supporting typing skills, reducing stress levels, increasing children's imagination, and negative social impacts of children, namely children becoming more passive, decreasing socialization skills and becoming a habit, slow understanding lessons, and eye damage (Novitasari, 2016). Another study conducted by Mutia Sari with the title "The Impact of Gadgets on Early Childhood Development" states that gadgets do not have a positive impact on children's social development but have a negative impact in the form of children not wanting to interact socially if they are already using gadgets (Mutia Sari, 2019).

From the description of this phenomenon, the researchers are interested in conducting a literature study on the effect of gadget use on the social development of children aged 3-5 years.

METHODS

This type of research is literature research or literature review, which is research that critically reviews or reviews the knowledge, ideas, or findings contained in the academic-oriented literature, and formulates theoretical contributions. and methodology for specific topics (Cooper & Tylor, 2012).

The type of literature review used in this research is a systematic review, which is research that uses research methods and processes to identify and critically assess relevant

research, as well as to collect and analyze data from the research. This study is useful for determining whether a variable has the same effect across research, what research is needed in the future (Snyder, 2019).

The data used in this literature study is secondary data obtained not from direct observation, but from the results of research that has been done by previous researchers, the data used is in the form of articles or journals that are relevant to the topic of discussion in this literature study. Searching for journal articles in this literature study was carried out by accessing the database on Google Scholar, DOAJ, and the Indonesian National Library website.

The strategy used in finding journal articles is using Indonesian and English that are relevant to the topic. Keywords in Indonesian that are used are the influence of gadget use, and social development of preschool children, keywords in English, namely the influence of gadget usage, and social development on preschool children.

In the initial phase of searching for journal articles, 7,480 articles were obtained from 2015 to 2020. Of these, researchers then conducted screening with the results that only about 14 national and international journals were considered relevant. The journal criteria used in this literature study use the *PICOS* table (*Population, Intervention, Comparators, Outcomes, Study Design, and Publication Type, Publication Years, and Language*), with a description of the study consisting of parents who have early childhood who use gadgets, not using intervention, there is no comparison, studies have results that gadgets affect or pose a risk to the social development of early childhood 3-5 years old, studies with qualitative, quantitative and descriptive approaches, published in 2015 to 2019, and use Indonesian and English.

The data analysis used in this study is annotated bibliography, which is a list of sources used in a study, where each source is given a conclusion related to what is written in it.

RESULTS

Based on the results of the journals collected and the author's analysis, it was found that there was an effect of gadget use on the social development of children aged 3-5 years.

Based on the results of research conducted by Yuni Sulistiawati et al. entitled "The Effect of Gadget Usage on the Social Development of Pre-School Children in Pesawaran District, Lampung", this study uses a quantitative method with a comparative design. The results of the *Mann Whitney* test showed that the group exposed to gadgets had a higher mean value than the group not exposed to the gadgets, the significance value of *p-value* = 0.049 so that the $p\text{-value} < \alpha$ ($0.049 < 0.05$) then H_0 was rejected. So it can be concluded that there is an effect of using gadgets on the social development of pre-school children in Kindergarten, Bumi Agung Village, Tegineneng District, Pesawaran Regency in 2019 (Yuliana Sulistiawati, Vida Artha Supratman, 2019).

This is related to research conducted by Riyanti Imron on the relationship between gadget use and the social and emotional development of preschool children in South Lampung Regency. The results of the bivariate analysis with the *Chi-Square* test showed the *p-value* = 0.001 ($p < 0.05$), this value states that there is a relationship between gadget use and social and emotional development of preschool children. This study concludes that there is a relationship between the use of gadgets and the social and emotional development of preschool children (Imron, 2017).

According to another study conducted by Nizar Rabbi et al. (2017) entitled "The Effect of Device Use on Early Childhood Emotional Social Development", which uses a descriptive research method with the *ex post facto* type, the population used in this study is

group B children in RA Baiturrahman, Cipedes District, Tasikmalaya City, which amounted to 37 people, then a sample of 23 people was taken based on the results of distributing questionnaires for parents. The results of the study with a simple regression test to determine the effect of the use of devices on children's social-emotional development showed the significant value of the relationship between the independent variable (device use) and the dependent variable (social-emotional development). Based on the calculation, the significance value is 0.184. This means that the independent variable (device use) is not significant for the dependent variable (social-emotional development) (Radliya, Apriliya, & Zakiyyah, 2017).

The results of research conducted by Heni and Ahmad (2018) with the title "The Effect of Smartphone Use on Personal Social Development of Pre-School Children", which used a quantitative research method with a *cross-sectional* design, the population in this study were all parents and students. Al-Marhamah Kindergarten students in Majalengka Regency with a total sample size of 33 mothers and 33 children found that pre-school children who often use smartphones with inappropriate development (62.5%) are higher than children who rarely use smartphones with development. not suitable (11.1%). So that more than half of pre-school age children in Kindergarten Al-Marhamah, Majalengka Regency in 2017 are smartphone users with frequent frequencies and get inappropriate developments. This difference in proportion is statistically significant, from the results of the *Chi-Square* test at the significance level of 5% ($\alpha = 0.05$), the probability value of $p = 0.017 < 0.05$ is obtained, meaning that the null hypothesis is rejected, so it can be stated that there is a significant relationship between smartphone use. with the personal social development of pre-school children in Al-Marhamah Kindergarten in Majalengka Regency in 2017.

From the results of another study conducted by Uliyatul Laili with the title "Influence of Gadget on Social Personal of Early Childhood", this research method uses quantitative research methods with a *cross-sectional* design, states that parental education has no influence on children's social development. Social status also has no effect on social development, but the use of gadgets for more than 30 minutes a day has an influence on the social development of preschool children aged 3-6 years (Laili, 2017). The results obtained were 16 out of 31 respondents of preschool children who use gadgets for more than 30 minutes a day have a personal social development level in the yellow category and 15 respondents who use gadgets for less than 30 minutes a day have a level of personal social development in the normal category, with a p value = 0.001. It can be concluded that the use of gadgets affects the personal social development of preschool children (Laili, 2017).

Mildayani Suhana (2018) in her research entitled "Influence of Gadget Usage on Children's Social-Emotional Development" using a descriptive method, showing the results that excessive use of gadgets in children can make children introverted and can increase interpersonal and communication problems in children. and can change children's behavior to withdraw from the social environment (Suhana, 2018).

From another research conducted by Sujianti (2018) entitled "The Old Relationship and Frequency of Gadget Use with the Social Development of Pre-School Age Children at Al-Irsyad 01 Islamic Kindergarten Cilacap", which used a correlative descriptive method with a *cross-sectional* approach, it was found that 11 children of 20 children who use gadgets with intensity are often at risk of experiencing poor social development with p -value = 0.577 and $\alpha = 0.05$ (Sujianti, 2018).

DISCUSSION

Social development is a development where children can socialize, children also want to be independent and help each other who needs help. Social development has a level where children want to interact and also play with their friends, not just playing alone or just playing at home with inanimate objects such as gadgets. Apart from interacting with their friends, children are also able to interact with other environments, such as the school environment, the neighborhood, and the family environment. Children who are not able to interact with other people from an early age will find it difficult to socialize in adulthood. Another level of achievement of social development that must be fulfilled is that children can be tolerant so that they can work together in groups (Mutia Sari, 2019).

Growth and development can be influenced by two factors, namely internal and external factors. External factors, namely the environment, determine the extent to which each child can fulfill their potential (John Rendle Short, 2010). These environmental factors include the biophysical-psychosocial environment, which includes the family, the surrounding community, the physical environment, biology, culture, economy, politics, and current technological developments. Children's growth and development that is influenced by the environment can be temporary or permanent and can affect the speed and quality of children's development, one of which is the use of gadgets (Latifa, 2017).

Currently, the world of information technology has developed very rapidly. Based on the observations of researchers in the field, almost all people from various backgrounds are very good at handling, operating, or making friends with gadgets anywhere (Fajrina, 2015).

Gadgets are a form of sophisticated technology that is easily available. Usually, gadgets have a minimalist and practical design so they are easy to carry anywhere. A gadget is a small electronic device with a variety of special functions. Gadgets are considered more complete than electronic devices only because of their different functions and characteristics (Novitasari, 2016).

Based on data from the Bankmycell research institute collected from several sources related to the number of gadget users in the world reaching 5.17 billion people or 66.77% of the world's population (Turner, 2019). Based on the Emarketer research institute, there is also an increase in gadget users in Indonesia from 2016 to 2019, there has been a significant increase with the prevalence of gadget users of 65.2 million (2016), 74.9 million (2017), 83.5 million (2018) , 92 million (2019) (Rahmayani, 2015).

Today's gadget users are not only adults and teenagers, even children who are still in playgroup and kindergarten are now familiar with gadgets, they already know and understand the sophistication of gadgets. Many children are familiar with various forms of devices such as computers or laptops, tablet PCs, as well as cell phones or smartphones. Applications contained in devices such as game applications, ranging from adventure games, riddles to learning applications such as coloring applications, learning to read and write letters, cause early childhood to be interested in gadgets (Radliya et al., 2017).

This is due to the rapid development of technology so that children are familiar with the world of gadget, coupled with various features in it so that children's interest is increasingly becoming. Of course, this incident cannot be separated from the impacts that arise such as children being more comfortable with their own world (when children are with gadgets), preschool children should be playing with friends and their environment, without child supervision can be directed to inappropriate content such as video channels , forbidden sites, fights or killings in-game, dependence on technology and so on (Rahman in Heni, 2018).

The use of gadgets clearly has an influence on early childhood development, both physically and mentally. Children who have the habit of using gadgets, cognitively, these children will be able to recognize broader knowledge and children can also recognize the pictures or colors on their gadgets. Likewise with the aspect of language development, they will be able to add to the introduction of new vocabulary in their gadgets and they will be able to speak fluently. However, from the aspect of social development they will tend to socialize less with others due to being busy with gadgets (Mutia Sari, 2019).

The use of gadgets has an impact on its users, both adults, and children. The impact that arises depends on how the person uses it and uses it. As for some of the positive effects of gadgets on children, namely being an attractive learning medium, learning English is easier, and improving logic through educational interactive games. This can happen if parents can provide supervision, affirmation, and approach to children with gadgets properly (Iswidharmanjaya, 2014).

It is proven by the results of research conducted by Mutia Sari and Miranda (2019) through the results of interviews, it is stated that children can count in English and mention the letters of the alphabet in English (Mutia Sari, 2019).

The positive impact of using gadgets on children aged 3-6 years as mentioned above only focuses on cognitive development, but the impact of social development for children aged 3-6 years on social gadget use is almost non-existent. On the gadget, there are sophisticated features for making video calls that can connect children with family or peers, but this has limited limitations for social interaction. Children cannot directly interact socially with other people.

Besides having a positive impact, the use of gadgets can also harm children. Various gadget applications that contain games, videos that contain Sara, or even heretical teachings are all available and are within easy and fast access range in just seconds. Excessive use of gadgets (addiction), especially with access to bad content, such as scenes of violence that children see in games and movies, as well as pornography, are believed to negatively affect children's behavior and abilities (Pratiwi, 2015).

Supported by several other studies, one of which was conducted by Yuni Sulistiawati et al. (2018) that the use of gadgets for social development, based on statistical tests that have been carried out using the *Mann Whitney* test, shows that the gadget exposed group has a higher mean than the group not exposed to gadgets. The significance value of $p\text{-value} = 0.049$, so that the $p\text{-value} < \alpha$ ($0.049 < 0.05$) then H_0 is rejected. So it can be concluded that there is an effect of using gadgets on the social development of preschool children (Yuliana Sulistiawati, Vida Artha Supratman, 2019).

Reinforced by research conducted by Heni and Ahmad Jalaludin Mujalid (2018), it was found that the results of 33 respondents were reached by 24 respondents (72.7%) using smartphones with frequent intensity and 9 respondents (27.3%) using smartphones with a rare intensity. Preschool children who frequently use smartphones and with developmentally unsuitable (62.5%) are higher than children who rarely use smartphones and with developmentally unsuitable (11.1%). So that more than half of preschool children at Kindergarten Al-Marhamah, Majalengka Regency in 2017 are smartphone users with frequent frequencies and get inappropriate developments (Heni and Ahmad, 2018).

The difference in this proportion is statistically significant, from the *Chi-Square* test at the 5% significance level ($\alpha=0.05$) the probability $p\text{-value} 0.017 < 0.05$, meaning that the null hypothesis is rejected, so it can be stated that there is a significant relationship between smartphone use and social development of preschool-age children at Kindergarten Al-Marhamah 2017 developments (Heni and Ahmad, 2018).

CONCLUSION

From a literature study based on 7 journals, it was found that the use of gadgets has an influence on the social development of early childhood 3-5 years old.

The effects caused by the use of gadgets in children aged 3-5 years vary from positive to negative impacts, but the use of gadgets on the social development of early childhood 3-5 years only has a negative impact.

The positive impact of using gadgets in children aged 3-5 years only has a positive impact on cognitive development. While the negative impact of using gadgets on early childhood development aged 3-5 years is that children will become addicted to using gadgets and child development tends to be late until it is not in accordance with normal development at their age, besides that children will be more likely to be a closed, closed person. what is meant is that children prefer to play alone with gadgets rather than playing with their peers and their environment.

REFERENCES

- Ayouby, M. H. Al. (2017). Dampak Penggunaan Gadget Pada Anak Usia Dini. Bandar Lampung: Universitas Lampung.
- Cooper, Taylor, dan The UCSC University Library. (2012). In Pengembangan Asesmen Diri Siswa (Student Self-Assessment) sebagai Model Penilaian dan Pengembangan Karakter, ed. Mohammad Imam Farisi, paper presented at Konferensi Ilmiah Nasional "Asesmen dan Pembangunan Karakter Bangsa", 68–77. Surabaya: HEPI UNESA
- Dini. (1999). Kemampuan Bersosialisasi. Jakarta: Gramedia.
- Fadilah, A. (2011). Pengaruh Penggunaan Alat Komunikasi Handpone Terhadap Aktivitas Belajar Siswa Smp Negeri 66 Jakarta Selatan. Jakarta: Universitas Islam Negeri Syarif Hidayatullah.
- Gunarti, W. (2010). Metode Pembangkangan Perilaku dan Kemampuan Dasar Anak Usia Dini. Jakarta: Universitas Terbuka.
- Heni, A. J. M. (2018). Pengaruh Penggunaan Smartphone terhadap Perkembangan Personal Sosial Anak Usia Pra-Sekolah. *Jurnal Keperawatan Silampari*, 2. <https://doi.org/10.31539/jks.v2i1.341>
- Hurlock, E. B. (1998). *Perkembangan Anak* (6th ed.). Jakarta: Airlangga.
- Imron, R. (2017). Hubungan Penggunaan Gadget Dengan Perkembangan Sosial dan Emosional Anak Prasekolah di Kabupaten Lampung Selatan. *Jurnal Keperawatan*, XIII No.2.
- Isjoni. (2011). Model Perkembangan Anak Usia Dini. Bandung: Airlangga.
- Iswidharmanjaya, D. (2014). Panduan Bagi Orang Tua Untuk Memahami Faktor-Faktor Anak Kecanduan Gadget. Yogyakarta: Bisakimia.
- John Rendle Short, G. (2010). *Sipnosis Pediatrik* (2nd ed.). Tangerang: Penerbit Binarupa Aksara.
- Khairani, M. (2013). Psikologi Perkembangan. Yogyakarta: Aswaja Pressindo.
- Laili, U. (2017). Influence of Gadget on Social Personal of Early Childhood. Surabaya International Health Conference, 1.
- Latifa, U. (2017). Aspek Perkembangan pada Anak Sekolah Dasar: Masalah dan Perkembangannya. In *Journal of Multidisciplinary Studies* (Vol. 1). Surakarta: Institus Agama Islam Negeri.
- Mansur. (2005). Pendidikan Anak Usia Dini dalam Islam. Yogyakarta: Pustaka Pelajar.
- Mutia Sari, M. (2019). Dampak Gadget Terhadap Perkembangan Sosial Anak Usia Dini. 1.
-

- Novitasari, W. (2016). Dampak Penggunaan Gadget Terhadap Interaksi Sosial Anak Usia 5-6 Tahun (Vol. 5). Surabaya: Universitas Negeri Surabaya.
- Piaget, B. I. & J. (2010). Psikologi Anak : Terjemahan Miftahul Jannah. Yogyakarta: Pustaka Pelajar.
- Pratiwi, P. S. (2015). Bila Anak Terlalu Sering Diasuh Gadget. Semarang.
- Radliya, R., Apriliya, S., & Zakiiyyah, T. R. (2017). Pengaruh Penggunaan Gawai Terhadap Perkembangan Sosial Emosional Anak Usia Dini. *Jurnal Paud Agapedia*, 1(1).
- Rahmayani, I. (2015). Indonesia Raksasa Teknologi Digital Asia. Jakarta: Kementerian Komunikasi dan Informatika Republik Indonesia.
- Ramdhan Witarsa, R. S. M. (2018). Pengaruh Penggunaan Gadget Terhadap Kemampuan Interaksi Sosial Siswa Sekolah Dasar. 6.
- Rideout, V. (2013). *Zero to Eight : Electronic Media In The Lives of Infants, Toddlers, dan Preschoolers* (Vol. 1). San Fransisco: Common Sense Media Research Study.
- Rowan, C. (2013). The Impact of Technology On The Developing Child. United State: The Huffington Post.
- Shaffer, D. R. (2009). *Social and Personality Development* (6th ed.). Belmont: Wadsworth.
- Sholeh, A. A. & M. (2005). Psikologi Perkembangan. Jakarta: Rineka Cipta.
- Sigman, A. (2010). The Impact of Screen Media On Children : A Eurovision For Parliament.
- Sinta. (2018). Pengaruh Gadget Terhadap Perkembangan Sosial Anak Di TK Bustanul Athfal VI. Pontianak: Universitas Tanjung Pura.
- Snyder, H. (2019). Literature review as a research methodology: An overview and guidelines. *Journal of Business Research*, 104(August). <https://doi.org/10.1016/j.jbusres.2019.07.039>
- Soetjiningsih. (2016). *Tumbuh Kembang Anak* (2nd ed.). Jakarta: Penerbit Buku Kedokteran EGC.
- Strasburger, V. C. (2011). *Children, Adolescents, Obesity and The Media* (Vol. 128). Illinois: American Academy of Pediatrics.
- Suhana, M. (2018). Influence of Gadget Usage on Children's Social-Emotional Development. 169. <https://doi.org/10.2991/icece-17.2018.58>
- Sujianti, S. (2018). Hubungan Lama Dan Frekuensi Penggunaan Gadget Dengan Perkembangan Sosial Anak Pra Sekolah Di Tk Islam Al Irsyad 01 Cilacap. *Jurnal Kebidanan*, 8(1). <https://doi.org/10.31983/jkb.v8i1.3735>
- Undang-Undang No 20. (2003). Undang Undang Republik Indonesia. Jakarta: Presiden Republik Indonesia.
- Widiawati. (2014). Pengaruh Penggunaan Gadget Terhadap Daya Kembang Anak, Jakarta: Universitas Budi Luhur. 1.
- Yuliana Sulistiawati, Vida Artha Supratman, T. A. N. (2019). Pengaruh Penggunaan Gadget Terhadap Perkembangan Sosial Anak Pra Sekolah Di Kabupaten Pesawaran Lampung. *Wellness and Healthy Magazine*, 2(February). Retrieved from <https://wellness.journalpress.id/wellness/article/view/v1i218wh>
- Yupi Supartini. (2002). *Konsep Dasar Keperawatan Anak*. Jakarta: Buku Kedokteran EGC.