

The Impact of The Use of Gadgets in School of School Age Towards Children's Social Behavior in Semata Village

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Abstract

Therefore, it is necessary to monitor the use of gadgets from parents. This study aims to analyze and examine the use of gadgets, parental supervision in the use of gadgets, and the impact of using gadgets on children's social behavior in Semata Village. This study uses qualitative research methods that are processed with an interactive model of data collection, data reduction, data presentation, and verification or drawing conclusions. The results of this study indicate that the use of gadgets among elementary school children/equivalent dominant for entertainment purposes, junior high school students/equivalent for entertainment purposes and occasional hobbies of formal interests, while high school/equivalent children for entertainment, hobby, and formal purposes. The role of parents in supervising the use of gadgets among elementary school children/equivalent by requiring a time limit for the use of gadgets and sites used. In Junior high school/equivalent level with the provision of intensity limits for gadget uses. Senior high school/equivalent children are through supervision that is not curbing the children. The impact of the use of gadgets on children's social behavior is the children are accepted in the community, friendly attitude when greeting each other around people, the attitude of associating children through activities of gathering children especially with peers, as well as children's sympathy arises to chat each others.

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INTRODUCTION

Science and technology are one of the important factors in life. Technological developments give effect for human survival every day. This is because the technology of the world always change from time to time whether it is realized or not brought humans in modern life. The real manifestation of modern human life is the emergence of various technological advances in the world. One of them is a variety of sophisticated telecommunication tools such as gadgets.

Gadgets are a modern telecommunication tool that many people have used to fulfill survival. The gadget is a device that has more specific functions more practical and designed with advanced technology. Examples of gadgets are laptops, smartphones, netbooks, tablets and many others. Madalamaya (in Harfianto, et al. 2015). The existence of a gadget is no stranger to human life. Almost all people use gadgets from parents, adults, teenagers, to children. The sophistication of telecommunication gadgets attracts many people. In the office, at school, at home, and in many other places, most people already use gadgets. Among those who use gadgets, one of them is in school-age children. We can observe this matter in everyday life. The existence of a gadget is also widespread, not only in cities but also in rural areas.

In rural today, there are many people using gadgets. One of them is Semata village where most of its citizens have used gadgets. School-age children are one of the most gadget users in Semata village. The school-aged children in Semata Village seem to be competing to use gadgets. Gadgets are very close to their daily lives. Various applications available in the gadget attract human attention, especially school-age children. With the various applications available in the gadget, it can make users free to search for whatever they want. Therefore, sometimes gadget users feel enjoying and busy with gadgets that they have forgotten about the people around them.

Parental participation in the use of gadgets among school-age children is very necessary.

Andrianto (2011) states that "The use of uncontrolled gadget devices can bring undesirable impacts aka negative impacts on child development". The family is the first educational environment in child development. Since it was born into the world of the family environment, it became the first place in the process of child development to know the world. This is in line with the opinion of Fuad (2010) which states that "The family is the first and foremost educational institution in society, because, in the family, humans are born, develop into adults". Means that the family environment affects children's social development, one of which is social behavior which is all the daily activities of children.

Parents are an important part of the family that plays a role in child development. Social interactions that are intertwined in the family, namely between parents and children, will affect children's social behavior. If this interaction goes well then the members will be comfortable otherwise the interaction of family members is not good, the family will only be a place to live without meaning for the development of its members (Soelaeman, 1994). Meanwhile, Sumarno (in Ma'mur, 2012) states that "Parents are the figure who should know and be responsible for the child's potential, because children are born, grow, and develop physically with parents". The use of gadgets by children needs supervision from parents as one that plays a role in children's education including the formation of children's social behavior in the child's environment.

The explanation above shows that there is a link between the use of gadgets and children's social behavior, namely school-age children at the elementary school level (elementary/equivalent), junior high school (junior/equivalent), and senior high school (high school/equivalent). Behavior is the same as behavior, the word behavior is defined as a form of attitude, and a person's inner attitude is done consciously (Zakiah, 1991).

Social behavior is all human activities that are influenced by the environment, the form and social behavior of a person can also be shown by

his social attitude. The attitude according to Akyas (2004) is "a way of reacting to a particular stimulus". Indicators of social behavior can be seen through the characteristics and patterns of interpersonal response, namely the tendency of role behavior, behavioral tendencies in social relationships, and the tendency of expressive behavior.

Behavioral tendencies in social relations attract the attention of researchers associated with the use of gadgets. Behavioral tendencies in social relations include the nature of being accepted and rejected by others in their daily environment, being social and not being social, friendly and unfriendly, sympathetic and unsympathetic. The use of gadgets can affect the activities carried out by children in daily life, especially those related to the environment around their lives. Directly or not the use of gadgets by children will affect children's behavior with the social environment of their lives. From the above explanations, it shows that there is a relationship between the use of gadgets and social behavior.

The child's daily life is very close to his social environment, so that whether consciously or not everything that happens in the child's daily environment will have an impact on the child's life as well. All changes or developments in the world that occur have the potential to affect the life of the child itself. Especially regarding the development of world technology. School-age children are vulnerable with outside influences in themselves which can influence through the media and the community around their lives such as parents, peers, and residential communities. This phenomenon can have an impact on children's habits in everyday life that can be seen from the social behavior of school-age children.

Conditions like this, become an interesting phenomenon related to the use of gadgets among school-age children and the social behavior of children and at the same time deserve to be studied. Therefore, based on the above background, there arises a connection to conduct research on "The impact of gadget use among school-age children on children's social behavior

in Semata Village, Tangaran District, Sambas Regency, West Kalimantan Province".

METHODS

This research was conducted with a qualitative approach. It means researchers as instruments in research. This research design is a qualitative approach to the type of phenomenology. In qualitative research, researchers must know deeply and thoroughly about the problems under study. The focus of this research is the use of gadgets by school-age children, the role of parents in supervising gadget usage, and the impact of using gadgets on children's social behavior.

The Sources of research data are informants, phenomena, and documents. The informants in this study consisted of six school-age children including two elementary school children/equivalent, two junior high school students/equivalent, and two high school/equivalent children and parents of gadget users. The retrieval of informants in this study was carried out based on the level of children's education and gender per level of education. So every level of education has two informants consist of one son and one daughter.

The phenomenon is the impact of the use of gadgets among school-age children on children's social behavior. Documentation is in the form of pictures during interviews with child informants and parents. The location of this research is in Semata Village, Tangaran District, Sambas Regency, West Kalimantan Province.

Collecting data in this study with in-depth interview techniques, observation, and documentation. The validity of the data in this study uses triangulation techniques, namely source triangulation and theory triangulation. Data analysis techniques through qualitative analysis of interactive models consisting of four steps, namely data collection, data reduction, data presentation, and verification/drawing conclusions.

RESULTS AND DISCUSSION

Use of Gadgets among School-Age Children

Children at the primary school level understand the meaning of a gadget like a cell phone or the functions of a cell phone to watch cartoon videos and play games. At the junior high school level, children understand gadgets as cell phones. The function of the gadget is to play social media and for entertainment such as reading comics. The gadget is understood as a cellphone or cellphone that functions to search for the lesson, play social media, and for entertainment such as watching movies.

The use of gadgets at the elementary school level is for entertainment purposes, namely watching cartoon videos, children's funny videos, and other videos or short films. Besides that, gadgets are also used to play games. The activity of watching cartoon videos is sometimes done together in one of the children's homes. Levels of secondary school students use gadgets for entertainment and hobby purposes such as social media namely Facebook, Instagram, and WhatsApp and reading comics.

The level of education of secondary school students use gadgets for the sake of hobbies and entertainment and occasionally for formal purposes such as looking for subject matter such as if there is the task of writing papers, power points, and homework. Whereas for hobby purposes, namely watching Korean movies and reading watsapp. Entertainment interests are playing social media like Facebook, Instagram, and have used big olive.

Gadgets are used by children at the elementary school level can still be said to be reasonable in the sense that they are not cellphones or gadget bugs. When children interact with their environment it can still happen well. Children also sometimes gather with peers together using the gadget that is watching cartoon videos together. Through social interaction gadgets that are intertwined more tightly, especially girls who become informants in this study, that is, with gadgets can easily confide in one another, which is usually done through WhatsApp. The gadget is one of the tools to help

interaction, namely communication with people around the environment, especially with peers or relatives whose place of residence is far away.

Analysis and assessment of field theory on the use of gadgets among school-age children include children's understanding of gadget functions, use of gadgets among school-age children (for formal, hobby, or entertainment purposes) and the interaction of children with the surrounding environment according to researchers appropriate with the theory and data found in the field.

The cause of the above is because there is a negative view of the use of gadgets by developing teenagers, including school-age children, not necessarily true. There are also children who are not affected by the negative impact even though the intensity of the use of gadgets is more dominant in the interests of hobbies and entertainment. Based on the informants in this study, the use of gadgets by school-age children is still in good scope with a variety of uses. Thus between Husserl's phenomenological theory and field data regarding the use of gadgets among school-age children are suitable.

The Role of Parents in Supervising The Use of Gadgets among School-Age Children

Parental supervision on the use of gadgets at the elementary school level is the supervision of time and things in the gadget. Parents monitor which sites are opened and used by children by looking at the contents of children's gadgets. In addition, the most supervised is the time to use the gadget, which is by limiting the time to use the gadget at night. The supervision at the junior high school level of education is done by parents by paying attention to children's intellectuality in using gadgets, especially at night when they are in learning hours in order to pay attention to children by parent, if the child is still busy with the gadget, parents will warn with language that is not angry. Since children today differ from ancient times. The level of disobedience of children today is higher to be a prohibited language by giving advice, because parents also adjust.

Parental supervision of children in high school education is more dependent on the child itself. However, it does not mean to give free the children from using gadgets. The way of parents' supervision in high school level by paying attention to children when it is late night until dawn then parents will warn the children.

Children are given advice by parents to do not forget the time when using a gadget. Then, parents remind children to always remember learning time and sleep time. In addition, direction is made by parents through examples of events or news that are on television if they happen to be watching immediately given advice. The direction from parents to children is not too busy using gadgets. Already junior high school must be able to distinguish which is good which is not. Direction is made by parents against the children of gadget users among in secondary schools are in the form of advice to children.

The data found in the field regarding the issue of parental supervision of the use of children's gadgets is that parents do not curb the use of gadgets by children while still in a detrimental scope. The meaning of senderung contains conflict and pressure in a role that occurs in an environment means the emergence of conflict in the parents themselves. This can be seen from the beginning of the use of gadgets by children. Permission to use the gadget by the child can actually be said to have had an element of conflict. Parents want to keep abreast of the times that are happening now so that children are allowed to use gadgets.

The research results found above, related to the relationship between the role of parents and the use of gadgets by school-age children are reinforced by Astuti's opinion (2014) which shows that the application of social values is a shared responsibility between teachers, communities, schools, and government. It means the role of parents regarding children's social behavior is very necessary. This is because parents are one of the educator environments in shaping children's social behavior.

Findings about the role of parents in supervising the use of gadgets by children who follow the supervision and direction of parents to

gadget users, has been strengthened by the results of previous research conducted by Palar (2018) and Hariyanto (2016) shows there is a relationship between the role of the family in avoiding the impact negative use of gadgets in children with children's behavior in the use of gadgets. Moreover, Syamsiah's research (2017) shows the role of parental guidance on adolescent gadget users is very important to minimize the impact of gadget use by children.

The Impact of The Use of Gadgets in School of School Age Towards Children's Social Behavior

Denied/Accepted by the Community

The relationship between children gadget users and the surrounding community can be seen from the frequency of children gathering with their environment, especially with peers. The response of the community to children is seen from the child's relationship that is still accepted in everyday life. Children also often visit their neighbors' homes. Communities around the place of residence still have social relations or interactions with children who use gadgets. Especially among high school children often interact with older adults around the place of residence.

Friendly/Unfriendly Attitude

The impact of the use of gadgets among elementary school age children towards friendly/unfriendly attitudes is more to a friendly attitude. It can be seen in the daily lives of children in using their gadgets to interact with their peers such as sending each other cartoon videos or games they have. Consciously or not a friendly attitude arises in the child. At the elementary school level the impact of using gadgets on friendly/unfriendly attitudes is that children are more likely to be friends, children interact more often with other people, especially their peers.

The impact of the use of gadgets on the elementary school level towards other friendly/unfriendly attitudes that the children feel with the gadget making the unknown know the social media that can be accessed through gadgets.

Therefore, friendship or friendliness appears with greetings or scolds through the application available on the gadget itself.

Associating Attitudes/Dislike

The relationships occur in elementary school when the children watch cartoon videos together or watch their friends are playing games on their gadgets. In addition, children gadget user also continue to interact with the surrounding community and not only focus on the gadget they have. The children of Junior high school make gadgets as a tool for hanging out with their peers or the community in their neighborhood. One of them is telling each other or talking. The impact of the use of gadgets among school-age children at secondary school level towards socializing/disliking attitudes is more to the child's sociable attitude in the form of children's behavior in everyday life such as doing activities together. In addition, it also makes children more happy to interact with other people who are both near the place of residence and.

The phenomenon found in this field shows that there is a relationship between a person's social behavior and social/unfriendly attitudes which is reinforced by the work of Sunarjan, et al. (2017) which states that, participating in activities and having living conditions and facilities that are customary, or at least widely encouraged or approved in the communities where they come from. It means that the city people who live in the cemetery survive one of them by having relations with other communities. Or in other words, relationships or relationships that are intertwined are the effects of daily activities, which then also contribute to the social behavior of someone who is in a particular environment where he or she originates.

The relationship between a person's social behavior and his/her social/unfriendly attitude is also reinforced by the work Hardati, et al. (2010) which mentions that society is a living entity of human beings related to a particular system of customs. So in a life a person is expected to be able to interact with people who are in their life environment called the community.

Sympathetic/Not Sympathetic

School-age children in the elementary school level concern for the environment can still be said to be limited to curiosity. The impact of the use of gadgets in the daily lives of elementary school children in the form of child interaction with peers. The children's gadget at the junior high school education level makes children more sympathetic, caring for peers, especially about the love or romance of new children, who are usually referred to as ABG or teenagers. Sympathetic attitudes of children in the high school level of education in the form of self-concern or sadness if they see other people affected. Even the gadget helps the information. or in other words, there are gadgets that are owned by children at the age of this middle school, helping children to know what is happening around them through gadgets, namely social media.

Data in the field associated with Rusli Abraham's theory of social behavior above the use of gadgets among school-age children is a human demand for community life, one of which is by establishing communication through various ways including using the gadget. As long as the social behavior raised by the child does not interfere with the lives of others, the behavior that is raised is still positive or good. The data found shows that the current globalization era has brought changes in the lives of children, including children, gadget users, reinforced by Atmaja's work (2017) which states that the global era has an impact on shifting social and cultural values.

The impact of gadget use among school-age children on children's social behavior in Semata Village based on research facts was reinforced by several results of previous studies such as the results of research by Harfianto (2015), Rohadi (2015), Qomariyah (2016), Wulandari (2016), Wijaya (2015), Krisnaningrum (2017) shows the relationship between the use of gadgets and children's social behavior that can be seen from children's activities in daily life. With gadgets, children get new activities and rely on gadgets in their activities so that they have an impact on children's social behavior such as appearance, style of speech, association, in mindset, as well as

the perspective of ethics and norms that exist in life.

In addition to Hilmi (2015), Prasetya (2016), Rachmana (2013), Mariskhana (2018), Rosdiana (2018), Puruhita (2016) researchers show that gadgets used by children, including among school-age children, cause a shift in local values in behavior. social child which gives rise to new values. The shift in value that occurs causes positive damage that allows children to access new information and facilitate communication. But on the other hand it can lead to negative social behavior through gadgets that are used such as opening sites that are not suitable for children to know such as porn sites and other sites that are destructive of children's behavior. In addition, other applications are addictive, one of them is online gaming. Therefore there is a need for collaboration by the environment such as parents, the surrounding community, and the school.

CONCLUSION

Based on the results of research and discussion, the use of gadgets among school-age children in elementary/equivalent level is more dominant for entertainment purposes at the junior high school level/equivalent is dominant for occasional hobbies and entertainment interests for formal purposes, while in high school/equivalent level is entertainment, hobbies, and formal interests.

The role of parents in supervising the use of gadgets for elementary/equivalent children is done through the supervision of time and supervision of access used by children through gadgets, junior high school/equivalent level is still controlled only unlike elementary school children/equivalent, while in high school/equivalent education by supervising children's activities in using gadgets that are not restraining.

The impact of the use of gadgets on children's social behavior is that children are accepted by the community well, then a friendly attitude that is greeting each other with people around, the attitude of associating children through daily activities of gathering children,

especially with peers, as well as children's sympathy can arise through gadgets by mutual tell the events that are being experienced or in other words confide in each other.

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REFERENCES

- Atmaja, H. T., & Sanjoto, T. B. (2017). Konstruksi Sosial Pembelajaran IPS Berbasis Kebangsaan (Studi Fenomenologi pada Guru Pendidikan IPS). *Proceedings*. Seminar Nasional Tahunan Fakultas Ilmu Sosial Universitas Negeri Medan Tahun 2017, 1(1), 300-305. Retrieved from <http://seminastafis.unimed.ac.id/wp-content/uploads/2017/11/16-hamdan-konstruksi-sosial-pembelajaran-ips-berbasis-kebangsaan.pdf>
- Andrianto, T. T. (2011). *Meningkatkan Karakter Sukses Anak di Era Cyber*. Yogyakarta: Ar-Ruzz Media.
- Astuti, T. M. P. (2014). Nilai-Nilai Sosial dan Pendidikan Karakter dalam Kurikulum 2013. *Proceedings*. Seminar Nasional Konservasi dan Peningkatan Kualitas Pendidikan di Indonesia, 22 Maret 2014, Universitas Negeri Semarang. Retrieved from <http://lib.unnes.ac.id/23349>
- Fuad, I. (2010). *Dasar-dasar Kependidikan*. Jakarta: PT. Rineka Cipta.
- Hardati, P., et al. (2010). *Pengantar Ilmu Sosial*. Semarang: Widya Karya.
- Harfiyanto, D., Utomo, C. B., & Sanjoto, T. B. (2015). Pola Interaksi Sosial Siswa Pengguna Gadget di SMA N 1 Semarang. *Journal of Educational Social Studies*, 4(1). Retrieved from <https://journal.unnes.ac.id/sju/index.php/jes/article/view/6859>
- Hariyanto, K. D., & Naryoso, A. (2016). Pengaruh Intensitas Mengakses Fitur-Fitur Gadget dan Tingkat Kontrol Orang Tua terhadap Kesehatan Mental Remaja. *Interaksi Online*, 4(2), 1-12. Retrieved from <https://ejournal3.undip.ac.id/index.php/interaksi-online/article/view/11318>

- Hilmi, M. Z. (2015). Nilai-nilai Kearifan Lokal dalam Perilaku Sosial Anak-anak Remaja di Desa Sepit Kecamatan Keruak Kabupaten Lombok Timur. *Journal of Educational Social Studies*, 4(1). Retrieved from <https://journal.unnes.ac.id/sju/index.php/jes/article/view/6867>
- Krisnaningrum, I., Masrukhi., & Atmaja, H. T. (2017). Perilaku Sosial Remaja Era Globalisasi di SMK Muhammadiyah Kramat, Kabupaten Tegal. *Journal of Educational Social Studies*, 6(2), 92-98. Retrieved from <https://journal.unnes.ac.id/sju/index.php/jes/article/view/19784>
- Mariskhana, K. (2018). Dampak Media Sosial (Facebook) dan Gadget terhadap Motivasi Belajar. *Perspektif: Jurnal Ekonomi, Sains dan Manajemen*, 16(1), 62-67. Retrieved from <https://ejournal.bsi.ac.id/ejurnal/index.php/perspektif/article/view/3120>
- Ma'mur, A. J. (2012). *Kiat Mengembangkan Bakat Anak di Sekolah*. Yogyakarta: DIVA Press.
- Palar, J. E., Onibala, F., & Oroh, W. (2018). Hubungan Peran Keluarga dalam Menghindari Dampak Negatif Penggunaan Gadget pada Anak dengan Perilaku Anak dalam Penggunaan Gadget di Desa Kiawa 2 Barat Kecamatan Kawangkoan Utara. *Jurnal Keperawatan*, 6(2). Retrieved from <https://ejournal.unsrat.ac.id/index.php/jkp/article/view/20646>
- Prasetya, O. Y. (2016). Perilaku Sosial Anak Jalanan di Kawasan Simpang 4 Pasar Pagi Arengka. *Jurnal Online Mahasiswa Fakultas Ilmu Sosial dan Ilmu Politik Universitas Riau*, 3(1). Retrieved from <https://jom.unri.ac.id/index.php/JOMFSIP/article/view/8780>
- Puruhita, A. A., Suyahmo., & Atmaja, H. T. (2017). Perilaku Sosial Anak-anak Jalanan di Kota Semarang. *Journal of Educational Social Studies*, 5(2), 104-112. Retrieved from <https://journal.unnes.ac.id/sju/index.php/jes/article/view/14073>
- Qomariyah, S. (2016). Studi tentang Perilaku Individual Pengguna Smartphone di Kalangan Mahasiswa UIN Sunan Ampel Surabaya dalam Perspektif Etika. *Undergraduate Thesis*. Surabaya: UIN Sunan Ampel. Retrieved from <http://digilib.uinsby.ac.id/6296>
- Rachmana, Y. S., Budiani, & Santi, M. (2013). Perilaku Sosial pada Anak Usia Dini yang Mendapatkan Pembelajaran Bilingual. *Character: Jurnal Penelitian Psikologi*, 2(1). Retrieved from <http://jurnalmahasiswa.unesa.ac.id/index.php/character/article/view/4583>
- Rosdiana., Wulandari, K., & Geroda, G. B. (2018). Dampak Penggunaan Gadget pada Pelajar di SMP Negeri 33 Samarinda. *Jurnal Abdimas Mahakam*, 2(1), 34-41. Retrieved from <https://journal.uwgm.ac.id/index.php/abdimasmahakam/article/view/292>
- Soelaeman. (1994). *Pendidikan dalam Keluarga*. Bandung: CV. Alfabeta.
- Sunarjan, Y. Y. F. R. & Atmadja, H. T., & Romadi. (2017). The Survival Strategy: Urban Poor Community to Live in The Brintik Hill Graveyard, Semarang, Indonesia. *International Journal of Economic Research*, 14(6), 147-157. Retrieved from https://www.researchgate.net/publication/317745859_The_survival_strategy_Urban_poor_community_to_live_in_the_Brintik_Hill_Graveyard_Semarang_Indonesia
- Syamsiyah, N. L. (2017). Peran Bimbingan Orang Tua terhadap Penggunaan Gadget untuk Game Online pada Anak Usia Remaja. *Undergraduate Thesis*. Yogyakarta: Universitas Muhammadiyah Yogyakarta. Retrieved from <http://repository.umy.ac.id/handle/123456789/11378>
- Wulandari, C. M. (2016). Analisis Dampak Penggunaan Teknologi Gadget terhadap Perilaku Siswa di SD Muhammadiyah 4 Batu. *Thesis*. Malang: Universitas Muhammadiyah Malang. Retrieved from <http://eprints.umm.ac.id/33989>
- Wijaya, G. P. (2015). Gaya Hidup Remaja Pengguna Gadget di Kota Pekanbaru. *Undergraduate Thesis*. Riau: Universitas Islam Negeri Sultan Syarif Kasim. Retrieved from <http://repository.uin-suska.ac.id/6675>
- Zakiyah, D. (1991). *Psikologi Agama*. Jakarta: Bulan Bintang.