



JNK

JURNAL NERS DAN KEBIDANAN
(JOURNAL OF NERS AND MIDWIFERY)

<http://jnk.phb.ac.id/index.php/jnk>



Gadget Use Duration and its Impact on Learning Motivation and Social Development of Children



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Article Information

History Article:

Received, 23/06/2022

Accepted, 08/12/2022

Published, 15/12/2022

Keywords:

gadgets, social development, learning motivation

Abstract

Development in communication technology such as smartphones and the internet are able to easily solve all information needs. However, there are many misuses of the sophistication of these tools by many children. This study aimed to determine the impact of using gadgets on learning motivation and children's social development at Islamic Elementary School Yaabunayya Mojokerto. The design of the study used cross-sectional analysis. The population was all students at Islamic Elementary School Yaabunayya with a total of 146 children. The sampling technique used purposive sampling with the inclusion criteria of children in grades two to six who were willing to be researched with the consent of their parents. Samples that meet the inclusion criteria were 85 respondents. The instruments used were the Motivated Strategies for Learning Questionnaire (MSLQ) and Vineland Social Maturity Scale (VSMS). Data analysis used the Spearman Rho test. The results of the analysis found that there was a correlation between the duration of using gadgets and the social development of children with a p value (0.013). Children who don't play with gadgets tend to look for playmates who can improve social development. The results of the study there is no correlation between the duration of gadget use and learning motivation in children with a p value (0.095). This is because children use gadgets to get lots of interesting lessons on the internet. For this reason, parents are expected to always accompany their children in using gadgets.

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DOI: <https://doi.org/10.26699/jnk.v9i3.ART.p296-302>

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P-ISSN : 2355-052X

E-ISSN : 2548-3811

INTRODUCTION

In this modern era, all aspects of life can be solved easily. One of them is in the field of communication technology such as smartphones and the internet. The presence of gadgets has indeed become a major need for children and adults. Gadgets are a communication tool and can help make other activities easier (Pebriana, 2017). However, many children find the use sophistication of these tools by many children. They use gadgets for useless things, so it takes time to study and is getting lazy to study. They prefer to be alone with their gadgets, so they don't want to interact with their environment. When children start to get addicted to playing with gadgets, children will be too busy playing without caring about their surroundings. (Zulfitri, 2018)

Children who are in the range of 6-12 years essentially undergo developmental tasks in the form of abilities that must be mastered by elementary school children (Khaulani, S and Irdamurni, 2020). However, many factors decrease children's learning motivation, one of which is influenced by the development of increasingly sophisticated gadgets. So they are increasingly lazy to open books, look for textbooks, and rarely read books (Masithoh *et al.*, 2020). Likewise, the social development of children in the modern era has decreased due to the habit of children who prefer to spend their time playing with gadgets rather than playing with their friends. Social development is the achievement of maturity in social relations which includes the ability to be independent, socialize and interact with the environment (Yusuf, 2017) In children who experience social development disorders, it is feared that it can cause children to have difficulty in adjusting to the social environment, children have difficulty in various demands in their groups, are less independent in thinking and behaving, as well as disturbances in the formation of children's self-concepts.

According to the Association of Indonesian Internet Service Providers (APJII), there are 25.1% of elementary school-age children use the internet. Duration of internet use in a day 43.89% use 1-3 hours a day, 29.63% use the internet 4-7 hours a day, and 26.48% use it > 7 hours a day (Asosiasi Penyelenggara Jasa Internet Indonesia, 2018). The results of the study by Istiqomah in Semarang showed that the intensity of the use of gadgets by students was included in the good category of 85.92%, the sufficient category was 14.07% and the

students' learning motivation was included in the very good category of 8.15%, the good category is 85, 19%, and the sufficient category is 6, 67%. The use of gadgets contributes 23.1% to children's learning motivation (Istiqomah, 2019). The results of research by Nikmah in Surabaya show that the influence of smartphone use and the use of e-learning on learning motivation is 44.8%. (Nikmah, 2020). Damayanti et al in their research found that excessive use of gadgets has a negative impact on aspects of children's physical and psychomotor development, cognitive, social, emotional, moral and language development. (Damayanti, Ahmad and Bara, 2020)

Students who use gadgets intensely for things that are less related to the academic field such as often playing games, accessing entertainment, and addiction to social media are obstacles to students' learning motivation to achieve achievement. Even the development of gadgets that are increasingly attractive and offer modern features can be a special attraction so that children tend to choose to use gadgets over other things such as studying and doing assignments (Sobon and Mangundap, 2019). Gadgets not only affect the mindset or behavior of adults but also affect the behavior of children, especially the development of social interaction. Gadget dependence on children is caused by the long duration of using gadgets. Playing for a long enough duration and done every day can make children develop antisocial personalities. (Witarsa *et al.*, 2018) The main factor that causes the high level of gadget use in children is parents who lend their smartphones and tablets to their children. (Sari and Nurjanah, 2020) The introduction of children to gadgets usually starts with the wrong way of diversion from parents or family in the hope that the child will not be fussy or stop crying. Starting from the wrong diversion, it has indirectly introduced children to gadgets which can later trigger a child's curiosity to be more about gadgets. Children cannot adapt to the outside environment and their friends because the features in games or videos are more interesting (Wijanarko and Setiawati, 2016).

Efforts that can be made to overcome gadget addiction in children are to limit the length of use of gadgets and provide the right schedule for playing with gadgets. Set a gadget-free area in homes such as the dining table, bedroom, and car. Teach children about the importance of refraining from playing with gadgets and following existing rules. And set a good example for children not to always

play with gadgets and take time to play with children. anak. Adjusting to the times of gadget use cannot be eliminated. Parents can give gadgets to children according to their needs, for example directing children to use gadgets for education for example coloring, puzzles, and others (Sunita and Mayasari, 2018).

Based on this background, researchers are interested in researching the impact of using gadgets on learning motivation and children's social development at Islamic Elementary School Yaabunayya, Mojokerto Regency.

METHOD

The design of the study used cross-sectional analytic. The population was all students at Islamic Elementary School Yaabunayya with a total of 146 children. The sampling technique used purposive sampling with the inclusion criteria of children in grades two to six who were willing to be researched

with the consent of their parents. Samples that meet the inclusion criteria were 85 respondents. The independent variable in this study was the use of gadgets in children. The dependent variable was learning motivation in children and social development in children. The instrument used to measure the variable duration of gadget use was a questionnaire, children's learning motivation was used by the Motivated Strategies for Learning Questionnaire (MSLQ) and to measure the social development of children using a social maturity scale questionnaire or VSMS (Vineland Social Maturity Scale). The data analysis used Spearman Rho Correlation Test to test the correlation between the independent variable and the dependent variable. The limit of significance, if the p-value <0.05, the result of a statistical calculation is significant, otherwise if the p-value is > 0.05, the result is not significant.

RESULT

Table 1: Distribution of Respondents in Islamic Elementary School Yaa Bunayya Mojokerto

Characteristics of Respondents	Frequency	Percentage
Children Live Together		
Parent	82	96,5
Grandmother/ Grandfather	3	3,5
When learning children		
Accompanied	70	82,4
independent	15	17,6
Parental supervision in using gadgets		
Always	23	27,1
Often	45	52,9
Sometimes	17	20
Never	0	0
Duration of using gadgets for entertainment (other than for learning needs)		
≤ 2 hours	63	74,1
> 2 hours	22	25,9
Social development		
Low	20	23,5
Medium	44	51,8
High	21	24,7
Motivation to learn		
Low	1	1,2
Medium	36	42,3
High	48	56,5

Based on table 1, shows that almost all of the children live with their parents, namely 82 respondents (96.5%), Most of the children are accompanied when studying as many as 70 respondents (82.4%). More than half of children using gadgets are often supervised by their parents, namely 45 respondents (52.9%). Most

children use gadgets for 2 hours, namely 63 children (74.1%), most of the children's social development is medium, namely, 44 respondents (51.8%), and most children have high learning motivation, 48 respondents (56.5%).

Table 2: Cross-tabulation of the duration of gadget use with children's social development

Duration use of the gadget	Social development						Total	
	Low		Medium		High		f	%
	f	%	f	%	F	%		
≤ 2 hours	12	14,1	32	37,6	19	22,4	63	74,1
> 2 hours	8	9,4	12	14,1	2	2,4	22	25,9
Total	20	23,5	44	51,7	21	24,8	85	100

P value 0,013

The results of the cross-tabulation in table 2 show that most children use gadgets for entertainment (other than for learning needs) for ≤ 2 hours and have medium social development, namely 32 respondents (37.6%). The results of the Spearman Rho correlation test using SPSS obtained a value of value (0.013) < (0.05) so that Ho is rejected and H1 is accepted, which means that there is a correlation between the duration of gadget use and the level of children's social development.

Table 3: Cross-tabulation of the duration of the use of gadgets with children's learning motivation.

Duration use of the gadget	Motivation to learn						Total	
	Low		Medium		High		F	%
	f	%	f	%	F	%		
≤ 2 hours	1	1,2	29	34,1	33	38,8	63	74,1
> 2 hours	0	0	7	8,2	15	17,7	22	25,9
Total	1	1,2	36	42,3	48	56,5	85	100

P value 0,095

The results of the cross-tabulation in table 3 show that for most children the duration of using gadgets for entertainment (other than for learning needs) ≤ 2 hours has high learning motivation, namely 33 respondents (38.8%). Spearman Rho test results show that p-value = 0.095 means that there is no correlation between the length of use of gadgets with learning motivation in children.

DISCUSSION

The correlation between the duration of gadget uses and children's social development

The results showed that most of the children lived with their parents as many as 82 children (96.5%). Most of the children in a day use gadget for entertainment (excluding learning needs) for ≤ 2 hours, namely 63 respondents (74.1%). The cross-tabulation shows that most children using gadgets with a duration of ≤ 2 hours have medium social development, namely 32 respondents (37.6%). The results of the Spearman Rho correlation test obtained the value of value (0.013) < (0.05), meaning that there is a correlation between the duration of gadget use and the level of social development of children.

The results of this study are in line with research by Munawar and Zuhri at Hidayatullah Islamic Kindergarten Semarang, with the value of t count > t table (5.063 > 2.042) with p = 0.000. The

results of this study indicate that there is a significant effect of using gadgets on the social development of early childhood, namely the use of gadgets hurts children's social development (Munawar and Zuhri, 2018). Likewise, with the results of research using a Systematic Literature Review by analyzing 7 national journals, it was found that there was a significant influence between the use of gadgets on the social development of children aged 3-5 years. (Setiani, 2020)

Gadgets have both positive and negative impacts. The positive impact of using gadgets facilitates communication, increases knowledge, adds friends, and the emergence of new learning methods, while the negative impact of time is wasted, disturbing health, difficulty concentrating in the real world, elimination interest in playing activities or doing activities. Children who use gadgets in overload time from the specified limit make them addicted and less sensitive to the

surrounding environment. Almost all of them are individual and passive in their interactions. They also prefer passive games with their gadgets rather than playing with their peers (Damayanti, Ahmad, and Bara, 2020). This can hinder the social development of children, especially children who are still of school age.

Social development is the achievement of maturity in social correlations. It can also be said as a learning process to conform to group norms, traditions, and morals (religion). Children's social development is strongly influenced by the process of parental treatment or guidance for children in introducing various aspects of social life, or norms of social life and encouraging and providing examples to their children on how to apply these norms in everyday life. One of the factors that influence Social Development is the use of gadgets. Excessive use of gadgets will make children addicted and less sensitive to the surrounding environment. The high social development of children is since in addition to good parenting from parents, teaching from teachers is well received by children so that they can shape children's character in their social life. The results of interviews with teachers at schools said that in addition to learning activities at school, there was also a cooking class and the food was eaten together, at school they were also taught how to share food where if there were children who brought lunch and other friends who didn't have them, they shared with their friends. In addition, children are also taught to be independent in class, for example, children must tidy up each table when they finish studying, and children also tidy up stationery that has been used. This activity will increase children's awareness of their friends and children's social development for the better.

Development is a change that is progressive, directed, and integrated. Social development is obtained from maturity and learning opportunities from various environmental responses to children in various periods of child development. Social development is the level of interaction of children with other people, ranging from parents, siblings, and playmates, to society at large. In the process of socializing children with the environment, children need peers, but attention from parents is still needed to monitor who children will hang out with. When children reduce their time playing with gadgets, the better the level of social development. At school-age

children are expected to be able to socialize with new environments, get to know the environment outside the home, and will meet their peers.

The Correlation of the Long Use of Gadgets with Children's Learning Motivation

The results of the cross-tabulation in table 3 show that most children using gadgets for entertainment ≤ 2 hours have high learning motivation, namely 33 respondents (38.8%). Spearman Rho test results show that $p\text{-value} = 0.095$ means that there is no correlation between the length of use of gadgets with learning motivation in children.

The results of qualitative study that has been carried out on fifth-graders at SD Negeri 2 Pringtulis Mayong stated that gadgets have positive and negative impacts. From the results of the learning scores of fifth-grade elementary school students during the middle of the semester, it can be seen that eighteen students who use gadgets are included in the pretty good category because many students have an average score above the KKM, which is 70 with a score of 71-86 and only three students get three points. students who score below the KKM are 68-69 (Rachman, KHB and Setianingsih, 2021). Research conducted by Wulandari where the results show that there is a significant influence between the use of gadgets on the learning motivation of fifth-graders at SD Negeri Dabin VI, Keuntungan District, Brebes Regency. The existence of an effect is proven from the results of the study, the value of count $> t$ table is $5.055 > 1.976$. The correlation value of 0.387 indicates that there is a low correlation between the use of gadgets and learning motivation (Wulandari, 2020). The results of the research at Medan Public Elementary Schools and Private Elementary Schools in grade 4 children obtained a correlation between the length of playing gadgets on the mental-emotional behavior of elementary school students with a $p\text{-value}$ of 0.0001 ($p < 0.05$) (Wahyuni *et al.*, 2019).

The use of gadgets that are applied in teaching and learning sessions at schools is mostly to increase student motivation in learning by using a more relaxed and effective method (Sandi, Journal and 2020, 2021). Many people assume that knowledge can not only be obtained from reading books but also through the internet which is easily accessible using gadgets, especially smartphones.

People prefer to take advantage of the ease of accessing the internet to find information, news, and new and old knowledge by using gadgets rather than going to look for books or archives in the library (Augusta, 2018).

High learning motivation that occurs in children who use gadgets > 2 hours a day is because many children can take lessons from what they see on gadgets such as playing games, so children can learn English because most online games use English, and other games are educational, sometimes children also watch youtube to learn something that makes children curious and can't solve it, then children will find out through videos on youtube. The use of gadgets can motivate children to learn because they will look for something they do not understand using gadgets. Games in gadgets are also not completely unbeneficial to children, many games are designed to be educational so that they can provide learning for children. Using gadgets makes it easier for children to learn because they don't need to open and search in books which takes a long time compared to searching on the internet so children are more motivated to learn even though they often use gadgets. The use of gadgets for recreation as well as for learning from entertainment and videos watched on the internet can get many lessons so that children are more interested in learning by using the internet because they find it easier and faster.

CONCLUSION

The results showed that there was a correlation between the duration of gadget use and the level of social development in school-age children. The fewer children play with gadgets, the better the level of social development. Children who rarely play with gadgets tend to look for friends to play with who can improve their ability to interact with friends around them so that there is an increase in social development.

Study results in There is no correlation between the length of use of gadgets with learning motivation in school-age children. The longer the child uses the gadget, the lower the learning motivation of the child. This is because the use of gadgets for entertainment and videos watched on the internet can get many lessons so that children are more interested in learning by using the internet and find it easier and faster to access the knowledge needed.

SUGGESTION

Parents are expected to carry out strict supervision of the use of gadgets in their children. Using gadgets for learning and limiting the use of gadgets for entertainment to a maximum of 2 hours a day with parental assistance. The schools, it is compared to giving directions so that students make more use of gadgets for learning activities by playing.

ACKNOWLEDGMENTS

Thank you to the Head of STIKes Bina Sehat PPNI Mojokerto for their support by granting research permits, and to the head of LPPM for research funding support. Thank you to the head of Islamic Elementary School Yaa bunayya for the permission as a research location and to all students who are willing to be respondents in this study

FUNDING

This project received funding from LPPM STIKes Bina Sehat PPNI Mojokerto

CONFLICTS OF INTEREST

The authors declared there is no potential conflict of interest in the article.

AUTHORS CONTRIBUTION

Tri Peni as author 1 carried out the task of compiling and designing research designs, collecting data, analyzing data, and making manuscripts. Siti indatul Laili as author 2 carried out the task of helping collect data and assist with data processing. Tri Ratnaningsih as author 3 carried out coordinating and collecting data. All authors read, provide input and approve the final manuscript

REFERENCE

- Asosiasi Penyelenggara Jasa Internet Indonesia (2018) 'Potret Zaman Now, Pengguna & Perilaku Internet Indonesia', *Apjii*, pp. 1–7.
- Augusta, G. (2018) 'Pengaruh Penggunaan Smartphone Terhadap Prestasi Belajar Mahasiswa Melalui Motivasi Belajar', *Skripsi Fakultas Keguruan dan Ilmu Pendidikan Universitas Sana Dharma*, p. 109.
- Damayanti, E., Ahmad, A. and Bara, A. (2020) 'Dampak Negatif Penggunaan Gadget Berdasarkan Aspek Perkembangan Anak Di Sorowako', *Martabat: Jurnal Perempuan dan Anak*, 4(1), pp. 1–22. doi: 10.21274/martabat.2020.4.1.1-22.

- Istiqomah, W. (2019) 'Hubungan Intensitas Penggunaan Gadget dan Motivasi Belajar dengan Hasil Belajar IPS Kelas V SD Negeri Gugus Drupadi Kecamatan Gunungpati Semarang', *Skripsi: Universitas Negeri Surabaya*, pp. 1–146.
- Khaulani, F., S, N. and Irdamurni, I. (2020) 'Fase Dan Tugas Perkembangan Anak Sekolah Dasar', *Jurnal Ilmiah Pendidikan Dasar*, 7(1), p. 51. doi: 10.30659/pendas.7.1.51-59.
- Masithoh, A. R. *et al.* (2020) 'The Correlation Between Gadget and Learning Motivation Towards Insomnia Incident of the Nursing Students', 27(ICoSHEET 2019), pp. 284–287. doi: 10.2991/ahsr.k.200723.071.
- Munawar, M. and Zuhri, P. R. A. (2018) 'The Influence of Gadgets on Early Childhood Social Development in Hidayatullah Islamic Kindergarten School Semarang', *Indonesian Journal of Early Childhood Education Studies*, 7(2), pp. 125–129. Available at: <http://journal.unnes.ac.id/sju/index.php/ijeces>.
- Nikmah, C. (2020) 'Pengaruh penggunaan smartphone dan e-learning terhadap motivasi belajar dalam masa pelatihan kerja (the effect of smart phone use and e-learning on learning motivation in on the job training)', 5(2), pp. 214–233. doi: 10.17509/jpm.v4i2.18008.
- Pebriana, P. H. (2017) 'Analisis Penggunaan Gadget terhadap Kemampuan Interaksi Sosial pada Anak Usia Dini', *Jurnal Obsesi: Jurnal Pendidikan Anak Usia Dini*, 1(1), p. 1. doi: 10.31004/obsesi.v1i1.26.
- Rachman, A. S., KHB, M. A. and Setianingsih, E. S. (2021) 'An Analysis of the Use of Gadget on Students' Learning Outcome (Case Study)', *International Journal of Elementary Education*, 4(4), pp. 558–565. Available at: <https://ejournal.undiksha.ac.id/index.php/IJEE/article/view/31917>.
- Sandi, R., Journal, Y. T.-W. of N. and 2020, undefined (2021) 'Hubungan Kebiasaan Bermain Gadget dengan Prestasi Belajar pada Anak Usia Sekolah', *Jurnal.Fkm.Umi.Ac.Id*, 01(02), pp. 98–104.
- Sari, D. A. and Nurjanah, A. L. (2020) 'Hubungan Game Online dengan Perkembangan Emosional Anak Usia 5-6 Tahun', *Jurnal Obsesi: Jurnal Pendidikan Anak Usia Dini*, 4(2), p. 994. doi: 10.31004/obsesi.v4i2.344.
- 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), pp. 1732–1739. doi: 10.30994/sjik.v9i2.526.
- Sobon, K. and Mangundap, J. M. (2019) 'Pengaruh Penggunaan Smartphone Terhadap Motivasi Belajar Siswa Sekolah Dasar di Kecamatan Mapanget, Kota Manado', *JURNAL INOVASI PENDIDIKAN DAN PEMBELAJARAN SEKOLAH DASAR*, 3(1), pp. 59–61. doi: 10.20885/iustum.vol2.iss4.art7.
- Sunita, I. and Mayasari, E. (2018) 'Pengawasan Orangtua Terhadap Dampak Penggunaan Gadget Pada Anak', *Jurnal Endurance*, 3(3), p. 510. doi: 10.22216/jen.v3i3.2485.
- Wahyuni, A. S. *et al.* (2019) 'The correlation between the duration of playing gadget and mental emotional state of elementary school students', *Open Access Macedonian Journal of Medical Sciences*, 7(1), pp. 148–151. doi: 10.3889/oamjms.2019.037.
- Wijanarko, J. and Setiawati, E. (2016) *Ayah Baik Ibu Baik Parenting Era Digital*. Happy Holy Kids.
- Witarsa, R. *et al.* (2018) 'Pengaruh Penggunaan Gadget Terhadap Kemampuan Interaksi Sosial Siswa Sekolah Dasar', ... *Jurnal Pendidikan Sekolah Dasar ...*, pp. 9–20.
- Wulandari, J. I. (2020) 'Pengaruh Penggunaan Gadget dan Kebiasaan Belajar Terhadap Motivasi Belajar Siswa Kelas V SD Negeri dabin VI Kecamatan Ketanggungan Kabupaten Brebes', *Doctoral dissertation, UNNES*.
- Yusuf, M. (2017) *Asesmen dan Evaluasi Pendidikan*. Jakarta: Prenadamedia Group.
- Zulfitri, Z. (2018) 'Pola Asuh Orang Tua Dalam Penggunaan Smartphone Pada Anak Sekolah Dasar', *Jurnal Holistika*, 1(2), pp. 95–102. Available at: https://scholar.google.co.id/citations?view_op=view_citation&hl=id&user=FRKISUw

AAAAJ&citation_for_view=FRKISUwAA

AAJ:9yKSN-GCB0IC.