

# Correlation Between the Level of Parents' Knowledge and Management of Gadget Use in Pre-School Children in RW 03 Kedaung Village Ciputat

Rita Dwi Pratiwi\*, Gita Ayuningtyas, Larasati, Fenita Indah, Nurwulan Ismaya

*STIKes Widya Dharma Husada Tangerang*

*Pajajaran Street No.1, Pamulang, South Tangerang Banten Province 15417, Indonesia*

*\*Corresponding author email: [ritadwipratiwi@wdh.ac.id](mailto:ritadwipratiwi@wdh.ac.id)*

**ABSTRACT.** The development of technology in Indonesia is always increasing rapidly, unconsciously, and has influenced the human life aspect. Technology, which is very popular in this modern age, is a gadget. The use of gadgets is limited not only by adults but also by teenagers, children even early-age children. The advance of technology has an either positive or negative impact if they are used improperly or excessively especially by children therefore the parents play an important role and become the base of growth and development of children. This research is titled "The Correlation between the Level of Parents' Knowledge and Management of Gadget Use in Pre-school Children in RW 03 Kedaung Village, Ciputat". The purpose of this research was to find out the correlation between parents' knowledge level and management of gadget use in pre-school children in RW 03 Kedaung Village, Ciputat. This research method was quantitative with a cross-sectional approach. The population used in this research were parents who have pre-school children in RW.03 Kedaung Village, Ciputat as many as 87 children. Sample of the research as many as 87 respondents by using non-probability sampling with total sampling technique. Based on the result of the research was found  $r$  value + 0.773 and  $p = 0.000$  ( $p < 0.05$ ) so that the result of this research showed that there was a significant correlation between parents' knowledge level and management of gadget use in pre-school children in RW.03 Kedaung Village, Ciputat. It is necessary that the parents must improve their knowledge about gadget because the higher the knowledge they have, the more the parents know how to control and limit the gadget use in pre-school children.

**Keywords:** *knowledge, parents, management, gadget and pre-school children.*

## 1. INTRODUCTION

In this modern era, the development of technology in Indonesia is increasing rapidly which without realizing it has influenced aspects of human life. Gadgets are small technological objects (tools or electronic goods) that have a special function but are often associated with innovations or new items [1]. Gadgets are not only owned by people who are in the middle and upper economic status, but gadgets can also be used by people with middle to lower economic status. This means that all levels of the economy can afford it. Gadget users are not only limited to adults but gadgets are also used by adolescences, children and even early aged children who use them [2].

Technology advances can have a positive impact on its users, gadgets can make all our work easier. On the other hand, gadgets can also have a negative impact when using gadgets in the wrong or excessive way, especially for children. Therefore, parents play an important role and become the basis for children's growth and development [3].

Preschool children are children aged 3 - 6 years old and usually have started attending the preschool program [4]. Children are nation's next generation to be, therefore the growth and development of toddlers

in Indonesia needs special attention. The right coaching will have an impact on the growth and development of children

Providing intensive stimulation, early detection and intervention as early as possible can help finding out the deviation of growth and development of children under five [5]. The development period is a period where the children imitate what they see. If the growth and development of the children is not monitored and accompanied by parents, it will hamper the children's development and development will lead to the negative side. Parents are required to be creative in educating children, providing facilities for playing, learning and other media that are fit and fun according to the children's growth and development [6].

Parents who have high education and knowledge will find unique ways to keep and educate their children from using gadgets. Parents with low education and knowledge have a harder time finding unique ways to keep their children away from using gadgets. The inability of parents to supervise children playing gadgets will provide opportunities for children to see negative content [7].

Many parents give gadgets to their children for reasons such as to calm their children when they are

fussy, so that they are easy to manage, so that children don't play outside too often, give parents free time to do house chores and to relax. Actually, parents are obliged to supervise and control the use of gadgets in their early aged children [8].

Diagogical assistance of parents is needed in supervising every children's activities while using gadgets and needs restrictions in accessing the features contained in gadgets. The mentoring referred to is that parents do not only see their children using gadgets, but parents must be able to become teachers for their children. Gadgets are used as a media to stimulate children. For example, features that are suitable for children (games) can be developed for discussion certain materials so that children do not focus too much on their gadgets. Such applications that children are trained to continue to interact with their surroundings. If the children are already addicted to gadgets, positive habituation and appropriate stimulation can be done [9].

Excessive use of gadgets can make the brain work slow down, impaired eye function, disruption of physical growth due to infrequent movement, hearing loss, and can also affect the children's psyche, especially if the children see something inappropriate in the gadget [10].

Parents are required to be smarter than their children. A consistent pattern of discipline needs to be applied by parents regarding what to do and what not to do when using gadgets. Parents must understand the use of gadgets that are good and right for their children. If parents understand, parents can apply gadget use to their children with proper supervision and assistance. In addition, parents must be able to control themselves in using gadgets, not only applying good and appropriate use of gadgets only to children. They themselves also have to practice because parents' behavior greatly affects children's behavior [11].

Parents must be one step ahead of children if they allow children to use gadgets. Parents must firmly provide rules for the game for children in using gadgets. Parents must also monitor their children while using gadgets to ensure that there are no threats that can affect the children's behavior. It is never too late for parents to learn so they can monitor their children [12].

A survey conducted by Common Sense Media of 350 parents in Philadelphia, United States stated that children starting at 4 years old already had smartphones without parental supervision. As many as 25% of parents left their children alone using gadgets at bedtime, 33% of parents admitted that their children aged 3-4 years old used more than one smartphone, 42% of their 1 year-old children used gadgets to play games, watch videos and play apps, 70 % of parents allowed their children aged 6 months

- 4 years old to play on smartphones when they were doing house chores and 65% of parents did the same to calm their children in public [13].

The Asian Parent Insight with Samsung Kids Time through Mobile Device Usage Among Young Kids conducted a survey of 500 parents in Indonesia which resulted in several findings, namely: 1) There were 98% of parents allowing their children to use smartphones / tablets; 2) Parents who allowed their children to use smartphones or tablets for educational purposes were 80%, for entertainment by 57% and for making children calm by 55%; 3) Parents' expectations of using smartphones/ tablets in children for educational applications were 81% and 85% for book applications; 4) In fact, 72% of children used smartphones/ tablets for playing games, 57% for educational applications and 14% for book applications; 5) Parents stated that 99% of their children used gadgets at home and 17% when they were at school [14].

Based on a preliminary study conducted by researchers in January 2020 on 10 mothers, 7 people said they gave permission and allowed their children to use gadgets with excuse to calm the children and give free time to parents to do their house chores and 3 people said they did not allow their children to use it because it was not the time for them to use the gadgets. The results of the observation showed that many children were enjoying gadgets such as watching videos and playing games. Based on the background and existing problems, the researcher is interested in conducting a research entitled "Correlation between the Level of Parents' Knowledge and Management of Gadget Use in Pre-School Children in RW 03 Kedaung Village Ciputat".

## **2. RESEARCH METHOD**

The research method used in this research was quantitative with a cross-sectional approach that is carried out one time and one time to find the correlation between the independent variable and the dependent variable. The appropriate population in this study was parents who have preschool children (3-6 years old) in RW 03 Kedaung Village Ciputat with a total of 87 respondents. The sampling used in this study was non-probability sampling with a total sampling technique, which is a sampling technique when all members of the population are used as samples. It amounted to 87 respondents.

The data collection technique in this study used a knowledge questionnaire about gadgets containing 12 questions with a Likert scale which was made in the form of a mutiple choice by selecting one of the answers by giving a cross (X) which according to the respondent it was correct from the choices that had been provided. The correct answer was given a value of 1 and the wrong answer was given a value of 0.

The gadget use management questionnaire contained 15 questions with a Guttman scale for positive questions, the answer to YES was given a value of 1 and for the answer NOT, it was given a value of 0. In contrast to negative questions, the answer to YES was given a value of 0 and the answer is NO given a value

of 1. Respondents chose one of the answers by giving a checklist (√) from the choices that have been provided.

**3. RESULT AND DISCUSSION**

*3.1 Univariate Analysis*

**TABLE 1.** Frequency Distribution of Respondents according to the Parents' Age in RW 03 Kedaung Village Ciputat

Age (Years old)	Frequency	Percentage (%)
21 – 25	33	37.9
26 – 30	22	25.3
31 – 35	6	6.9
36 – 40	15	17.2
41 – 45	6	6.9
46 – 50	2	2.3
51 – 55	3	3.4
<b>Total</b>	87	100.0

According to table 1, it showed that most respondents aged 21-25 years old by 37.9% (33 respondents) and a small proportion of the respondents were 46-50 years old by 2.3% (2 respondents). According to the results of the study based on the characteristics of the parents' age in the RW 03 Kedaung Village Ciputat, almost half of them were between the ages of 21-25 years old, amounting

to 33 people (37.9%). The characteristics of respondents based on the age of the parents who had preschool children aged under 30 years old were 76 people (38.0%) and over 30 years old were 124 people (62.0%). The results of the study concluded that mature parents would understand more quickly about gadgets and how to manage gadget usage in preschool children [15].

**TABLE 2.** Frequency Distribution of Respondents according to Parents' Occupation in RW 03 Kedaung Village Ciputat

Occupation	Frequency	Percentage (%)
Employed	21	24.1
Unemployed	66	75.9
<b>Total</b>	87	100.0

According to table 2, it showed that most respondents were unemployed by 75.9% (66 respondents) and the rest were employed by 24.1% (21 respondents). Based on the results of the study about the characteristics of the parents' occupation in RW 03 Kedaung Village Ciputat, most of them were unemployed with 66 respondents (75.9%) and a small proportion of them was employed with 21 respondents (24.1%) of the total sample. The results

of this study are supported by research conducted by Sowmya and Manjuvani (2019) which shows that 52.0% of unemployed parents and 48.0% of employed parents in which employed parents have more positive knowledge and good gadget use management. Meanwhile, unemployed parents pay more attention to children's health and are addicted to gadgets [15].

**TABEL 3.** Frequency Distribution of Respondents according to Parents' Education Levels in RW 03 Kedaung Village Ciputat

Education	Frequency	Percentage (%)
Primary School	1	1.1
Middle School	5	5.7
High School	60	69.0
College	21	24.1
<b>Total</b>	87	100.0

According to the table 3, it showed that most of the respondents were High School graduates by 69.0% (60 respondents) and a small proportion of the respondents were Primary School graduates by 1.1% (1 respondents). Based on the results of the study about the characteristics of parents' education levels in

RW 03 Kedaung village Ciputat, more than half of them graduated from high school with a total of 60 respondents (69.0%) of the total sample. The results of this study are also supported by research by Sowmya and Manjuvani (2019) which stated that the respondents in their research were mostly post-

graduations, namely 101 respondents (50.5%) and 99 respondents (49.5%) in which there was a correlation

between the levels of parents' education with the management of gadget use in preschool children[15].

**TABEL 4.** Frequency Distribution of Respondents according to Gadget-owning Children in RW 03 Kedaung Village Ciputat

Children Had Their Own Gadgets	Frequency	Percentage (%)
Yes	14	16.1
No	73	83.9
<b>Total</b>	<b>87</b>	<b>100.0</b>

According to the table 4, it showed that most of the preschool children didn't have their own gadgets, namely 73 respondents (83.9%) and the rest were the preschool children had their own gadgets, namely 14 respondents (16.1%). The results of the study based on preschool children who have their own gadgets in the RW 03 area of Kedaung Ciputat Village, most of them do not have their own gadgets with a total of 73 respondents (83.9%) and a small proportion of preschool children who have their own gadgets as many as 14 respondents (16.1%) of the total total

sample. The results of previous research conducted by Sowmya and Manjuvani 2019 stated that nearly a quarter (23.5%) of preschool children own their own tablet / iPad and (10.0%) own a game console [15]. In 2012, only about 27% of children aged 6 months to 4 years had their own tablets and cellphones, but in 2015 it increased to 73% who had their own tablets given by their parents, this has been surveyed to 1,034 parents who have children aged 6 months up to 4 years [16].

**TABEL 5.** Frequency Distribution of Respondents according to the Gadgets Used in RW 03 Kedaung Village Ciputat

Gadgets Used	Frequency	Percentage (%)
Cellphone	76	87.4
Laptop/ Computer	0	0.0
Tablet	11	12.6
<b>Total</b>	<b>87</b>	<b>100.0</b>

Based on table 5, it showed that most of the gadgets used by preschoolers were cellphones, namely 76 people (87.4%) and a small proportion of the gadgets used by preschoolers were tablets, namely 11 people (12.6%). According to the results of the research about the gadgets used by preschool children in the RW 03 Kedaung Village Ciputat, most of them used cellphones with a total of 76 respondents

(87.4%) and a small proportion using tablets with 11 respondents (12.6%) of the total sample. The results of previous research which stated that the most of the gadgets used by children were smartphones as many as 205 respondents (57.4%), laptops as many as 58 respondents (16.2%) and tablets as many as 35 respondents (9.8%) [17].

**TABEL 6.** Frequency Distribution of Respondents according to the Duration of Gadgets Usage in RW 03 Kedaung Village Ciputat

Duration of Gadgets Usage	Frequency	Percentage (%)
Less than 1 Hour/ Day	68	78.2
More than 1 Hour/ Day	19	21.8
<b>Total</b>	<b>87</b>	<b>100.0</b>

Based on table 6, it showed that most of the preschool children used gadgets less than 1 hour/ day by 78.2% (68 respondents) and the rest were the preschool children used gadgets more than 1 hour/ day, namely 19 respondents (21.8%). The results of the study based on the duration of using gadgets in preschool children in the RW 03 Kedaung Village Ciputat were mostly less than 1 hour/ day, namely 68

respondents (78.2%) and a small proportion of preschool children using gadgets for more than 1 hour/ day, namely 19 respondents (21.8%) of the total sample. The results of previous research conducted by Sowmya and Manjuvani 2019 revealed that three-quarters (75.0%) of parents limited their time to use gadgets while a quarter (25.0%) of parents did not limit their children spending time using gadgets[15].

**TABEL 7.** Frequency Distribution of Respondents according to the Knowledge Levels of Parents in RW 03 Kedaung Village Ciputat

Parents' Knowledge Levels	Frequency	Percentage (%)
Good	68	78.2
Sufficient	13	14.9

<b>Poor</b>	6	6.9
<b>Total</b>	87	100.0

Based on table 7, it showed that most of the parents had good knowledge, namely 68 respondents (78.2%) and a small proportion of parents had poor knowledge, namely 6 respondents (6.9%). The results showed that the description of the level of parents' knowledge in RW 03 Kedaung Village Ciputat was mostly parents who had good knowledge level, namely 68 respondents (78.2%), a small proportion of

parents who had sufficient knowledge level were 13 respondents (14.9%) and parents who had sufficient knowledge level. Lack of knowledge, amounting to 6 respondents (6.9%). Parents with a good knowledge level of gadgets totaling 27 people (90.0%), parents with a sufficient knowledge level were 3 people (10.0%) and parents with a poor knowledge level were no one (0.0%) [18].

**TABLE 8. FREQUENCY DISTRIBUTION OF RESPONDENTS ACCORDING TO THE MANAGEMENT OF GADGETS USAGE IN RW 03 KEDAUNG VILLAGE CIPUTAT**

<b>Gadgets Usage Management</b>	<b>Frequency</b>	<b>Percentage (%)</b>
<b>Good</b>	75	86.2
<b>Bad</b>	12	13.8
<b>Total</b>	87	100.0

Based on table 8, it showed that most of the parents had good management in gadgets usage, namely 75 respondents (86.2%) and a small proportion of parents had bad management in gadgets usage, namely 12 respondents (13.8%). The results showed that the frequency distribution of the management of gadget use among preschool children in RW 03 Kedaung Village, Ciputat mostly had good management, namely 75 respondents (86.2%) and a

small proportion had poor management, namely 12 respondents (13.8%) of the total sample. This research is supported by research which showed that the handling of gadget use in the good category was 30 people (100%), 11 people (39.5%) in sufficient category and 1 person (3.3%) in less categories[19].

**3.2 Bivariate Analysis**

**TABLE 9. KENDALL'S TAU TEST RESULTS**

<b>Significant Value</b>	<b>Correlation Coefficient</b>	<b>Description</b>
<b>0.000</b>	0.773	Very strong significant correlation with positive correlation direction

Based on table 9, it showed a significant value of 0.000 which stated that there was a significant correlation or the null hypothesis is rejected. It was interpreted as a correlation between the level of parents' knowledge and the management of gadget usage in preschool children in RW 03 Kedaung Village Ciputat with a correlation value of 0.773 which indicated a second correlation variable was very strong with unidirectional correlation (positive). The results showed that there was a significant value of 0.000 which stated that there was a significant correlation between the levels of parents' knowledge and the management of gadget usage in preschool

children in RW 03 of Kedaung Village Ciputat with a coefficient value of 0.773. The results of this study are supported by Septi Angraeni's research in 2019 showing the results Simple linear regression analysis found that the research significance value of 0.002, which meant that the regression model was linear. Thus the regression equation model based on research data was significant and meets the linearity criteria. With an F-value of 11,164. It could be said that there was an influence of knowledge on gadget usage behavior[20].

**TABLE 10. Results of Cross Tabulation Correlation between Parents' Knowledge Levels with Management of Gadgets Usage in Preschool Children in RW 03 Kedaung Village Ciputat**

<b>Knowledge of Gadget</b>	<b>Management of Gadget Usage</b>						<b>P Value</b>	<b>Correlation Coefficient</b>
	<b>Good</b>		<b>Bad</b>		<b>Total</b>			
	N	%	N	%	N	%	0.000	0.773
<b>Good</b>	68	78.2	0	0.0	68	78.2		
<b>sufficient</b>	7	8.0	6	6.9	13	14.9		
<b>Poor</b>	0	0.0	6	6.9	6	6.9		
<b>Total</b>	75	86.2	12	13.8	87	100.0		

Based on table 10, it showed that most parents had good knowledge and good management of gadget usage in preschool children, amounting to 68 people (78.2%), while parents had sufficient knowledge of gadget use management in preschool children, amounting to 7 people (8.0%) and poor knowledge amounted to 6 people (6.9%). Parents who had less knowledge have poor management of gadget use in preschool children as many as 6 people (6.9%) of the total sample. Parents who have high education and knowledge will find unique ways to keep and educate their children from using gadgets. Parents with low education and knowledge have a harder time finding unique ways to keep their children away from using gadgets. The inability of parents to supervise children playing gadgets will provide opportunities for children to see negative content [7]. Diagogical assistance of parents is needed in supervising every children's activities while using gadgets and needs restrictions in accessing the features contained in gadgets. The mentoring referred to is that parents do not only see their children using gadgets, but parents must be able to become teachers for their children. Gadgets are used as a media to stimulate children. For example, features that are suitable for children (games) can be developed for discussion certain materials so that children do not focus too much on their gadgets. Such applications that children are trained to continue to interact with their surroundings. If the children are already addicted to gadgets, positive habituation and appropriate stimulation can be done [9].

#### 4. CONCLUSION

There was a correlation between the levels of parents' knowledge and the management of gadget usage in preschool children in RW 03 of Kedaung Village Ciputat. It showed a significant value of 0.000 with a correlation coefficient of 0.773 which meant there was a correlation between the two variables with a very strong significant correlation with positive (unidirectional) correlation. From these significant results, it could be concluded that  $H_a$  was accepted and  $H_o$  was rejected

#### REFERENCES

- [1] Harsono Maaruf. 2014. Pengaruh Bermain Game Terhadap Perkembangan Remaja. Surya University .
- [2] [2] Amalia. (2019). Persepsi Orangtua Terhadap Penggunaan Gadget Pada Anak Usia Dini DI TK Surabaya. 9(1): 2. Retrieved from <http://jurnal.fkip.unila.ac.id/index.php/IJECI/article/view/16887>
- [3] [3] Antonius Simamora. (2016). Persepsi Orang Tua Terhadap Dampak Penggunaan Gadget Pada Anak Usia Pendidikan Dasar Di Perumahan Bukit Kemiling Permai Kecamatan Kemiling Bandar Lampung. Skripsi. Tidak Diterbitkan. FKIP Universitas Lampung. Bandar Lampung.
- [4] [4] Dewi, R.C.,& Oktawati,A.,& Saputri,L.D (2015). Teori & Konsep Tumbuh Kembang Bayi. Toddler, Anak dan Usia Remaja. Yogyakarta : Huha Medika
- [5] [5] Kemenkes RI. Profil Kesehatan Indonesia tahun 2014. Jakarta : Kemenkes RI; 2015.
- [6] [6]Sunita, Mayasari. (2017). Yes or Not Gadget Buat Si Buah Hati. Yogyakarta: Deepublish
- [7] [7] Irmayanti. (2018). Peran Orangtua Dalam Mendampingi Penggunaan Gawai Pada Anak Usia Prasekolah. 24(12): 2. Retrieved from <http://eprints.ums.ac.id/62119/1/NASKAH%20PUBLIKASI.pdf>
- [8] [8] Brooks, J. 2011. The Process of Parenting. Edisi Ke Delapan. Yogyakarta : Pustaka Pelajar. Fahransa, A.D. 2008
- [9] [9] Musliani. (2018). Peran Orangtua Dalam Mendidik Anak Usia Dini. 21(1): 1-2. Retrieved from [digilib.uin-suka.ac.id](http://digilib.uin-suka.ac.id)
- [10] [10] Abdullah Sani, Ridwan dan Kadri, Muhammad,. "Pendidikan. Karakter;Mengembangkan Karakter anak yang Islami", Cet. 1, Jakarta: Bumi Aksara, 2011
- [11] [11] Warisyah. (2015). Pentingnya Pendampingan Diaglogis Orangtua Dalam Penggunaan Gadget Pada Anak Usia Dini. 9(1): 131-132. Retrieved from <http://seminar.umpo.ac.id/index.php/semnasdi2015/article/viewFile/212/213>
- [12] [12] Fahmi, Nurul. (2019). Panduan Praktis mengasuh Anak di Era Digital. Jakarta: Pendar Ilmu
- [13] [13] Louis, C. Saint. (2015). Many Children Under 5 Are Left to Their Mobile Devices, Survey Finds. Diambil 11 Juli 2018, dari <https://www.nytimes.com/2015/11/02/health/many-children-under-5-are-left-to-their-mobile-devices-survey-finds.html>
- [14] [14] Yumarni, V. (2018). Pengaruh Gadget terhadap Tumbuh Kembang Anak Usia Dini AH-PIECE. In Al Hikmah Proceedings on Islamic Early Childhood Education (Vol. 1, hal. 293–300).
- [15] [15] Sowmya, Manjuvani. (2019). Usage Of Electronic Gadgets Among Preschool Children. 13(1): 1. Retrieved from <http://www.homesciencejournal.com/archives/2019/vol5issue2/PartA/5-1-75-510.pdf>
- [16] [16] Nabawy, G. El, Moawad, A., Gad, G., & Ebrahim, S. (2016). The Relationship 264 | Persepsi Orangtua Terhadap Hadirnya Era Teknologi Digital between use of Technology and Parent-Adolescents Social Relationship. Journal of Education and Practice, 7(14), 168–178.
- [17] [17] Ashari, et al. (2018). The Relantionship Between Knowledge And

- Attitude Towards Technology Gadget Usage With Student Socio – Emotions Development. 26(1): 152-156. Retrieved from <https://onlinejour.journals.publicknowledgeproject.org/index.php/ijim/article/download/9711/5275>
- [18] [18] Oktaviani. (2018). Gambaran Pengetahuan Orangtua Tentang Dampak Penggunaan Gadget Pada Anak Usia Prasekolah Di TK.Labschool UPI Bandung. 30(1): 1. Retrieved from: [repository.upi.edu/36425/](https://repository.upi.edu/36425/)
- [19] [19] Suhana, M. (2018). Influence of Gadget Usage on Children's SocialEmotional Development. In International Conference of Early Childhood Education (ICECE 2017) (Vol. 169, hal. 224–227).
- [20] [20] Anggraeni. (2019). Pengaruh Pengetahuan Tentang Dampak Gadget Bagi Kesehatan Terhadap Perilaku Penggunaan Gadget Pada Siswa SDN Kebun Bunga 6 Banjarmasin. 15(1): 64-65. Retrieved from <https://journal.lppm-stikesfa.ac.id/index.php/FHJ/article/view/68/29>