

---

# The Influence of Gadget Intensity Use on Pro-Social Behaviour of Early Childhood

**Ilga Putri Haratanti, Ria Noviati, Hukmi**

Early Childhood Education Program, FKIP, Universitas Riau

Pekanbaru. 28293. Indonesia

E-mail: [ilgaputri98@gmail.com](mailto:ilgaputri98@gmail.com)

**Abstract:** In this millennial era, technology has an important role in the growth and development of children. Gadgets are representative of the role of technology in children's development and are no longer something strange in children's lives. Thus, children can easily access any applications on the gadget. Many children who make gadgets as playmates, so that people around children are ignored. Many children are less sensitive to the surrounding environment, even though many positive things can be obtained by children in their environment and are not obtained on gadgets that are operated by children. This study aims to determine the effect of the intensity of the use of gadgets on pro-social behaviour of early childhood. This study is a correlation study with the location of research in Labor Kindergarten, FKIP, Universitas Riau. The sampling technique is saturated sampling with a sample size of 55 people. The intensity of the use of gadgets is grouped into three categories such as high, medium, and low. Meanwhile, pro-social behaviour data is measured using a Likert scale. The results of this study have a significant effect on the intensity of the use of gadgets on pro-social behaviour of early childhood with a value of  $F = 0.469$  and probability  $sig t = 0.004$ .

Keywords: Intensity, Gadgets, Pro-social Behavior.

## 1. Introduction

Referring to the statement in the Law on the national education system, early childhood aged 0-6 years is included in the golden age. Children at this age will experience very rapid growth and development, and this must be noticed by parents and early childhood teachers. According to various studies in the field of neurology, it is proven that 50% of children's intelligence is formed within the first 4 years. After 8 years, children's brain development reaches 80% and at the age of 18 reaches 100% (Slamet Suyanto, 2005).

Developments that integrate into the overall personality of children form a unity that cannot be separated and continuous. According to the Republic of Indonesia's Minister of Education and Culture Regulation No. 137 of 2014 concerning early childhood education standards states that there are six areas of early childhood development. The scope is religious and moral values, physical motor, cognitive, language, social-emotional, and art. The six areas of child development require proper stimulation to produce a positive response. One of the developments that children must have is good pro-social behaviour. In this age, children experience development in the stages of exploring and interacting directly with the surrounding environment. They usually tend to be happy with new things that he gets through play activities.

Most children play and satisfy their curiosity with gadgets. This is because gadgets are interesting things for them coupled with online game applications provided on the gadget so that so most of them spend all day playing gadget. While children their age have to play and mingle with their peers. Conditions like this make children less sociable with family because they are busy with gadgets.

---

Based on interviews, many parents said that their children are often busy by themselves so that they are not well socialized. For example, when hanging out with a family, the child is busy with the *gadget*. Children prefer to play alone. Furthermore, the researcher conducted observations on children, it found that many children have low eye contact or they are reluctant to look directly. Besides, they look less concerned with other people. The symptoms above refer to the children's pro-social behaviour. To find out more about the activities at home, researchers conduct interviews with parents. Based on the results of interviews, it is found that most of the children at home often use *gadgets*. Besides, children often cry if parents do not give *gadgets* to them. When children use *gadgets* children often forget about other activities such as changing clothes after school. These symptoms indicate that children often use *gadgets* in their daily life.

Based on the description above, the researcher discovered several phenomena that existed at Labor Kindergarten, FKIP UNRI. Therefore, the researcher researched the influence of gadget intensity use on pro-social behaviour of early childhood at Labor kindergarten FKIP UNRI. The aims of this research is to find out 1) How is the intensity of the use of *gadgets* in children aged 5-6 years in TK Labor FKIP UNRI?, 2) How is pro-social behavior in children aged 5-6 in TK Labor FKIP?, 3) Is there any influence on the intensity of the use of *gadgets* on pro-social behavior in children aged 5-6 in TK Labor FKIP UNRI?.

## **2. Methodology**

### **2.1 Types of research**

This research is survey research or a study that takes samples directly from the population. Judging from the problems studied, this is a correlation study to determine the relationship of gadget intensity use on pro-social behaviour of early childhood

### **2.2. Research sites**

This research was conducted at Labor Kindergarten, FKIP Universitas Riau, Pekanbaru City, Riau Province.

### **2.3. Population and Sample**

The population of this study was the parents of children who studied at labor kindergarten. The sampling is saturated sampling technique with amounted to 55 students.

### **2.4. Data collection technique**

The intensity data of gadget usage is obtained from the contents of the parents in the questionnaire which will be drawn into the high, moderate, and low categories. Meanwhile, the measurement of pro-social behaviour was carried out using a Likert scale in the form of 21 item statements. The distribution of statement items can be seen in table 1

**Table 1** Blueprint of Child Pro-social Behavior

No	Indicator	Item Distribution	amount
1	Share	1,2,3,4.	4
2	Help	5,6,7,8,9.	5
3	Cooperation	10,11,12,13	4
4	Acting honestly	14,15,16,17,18	5
5	Give away	19,20,21	3
	<b>Total</b>		<b>21</b>

## 2.5 Validity and Reliability

Before distributing the instrument, validity and reliability of the instrument were tested so that the results are following the research objectives. The validity and reliability tests were carried out by testing it to 20 students. The results of a trial on the scale of pro-social behaviour, 9 items had to be removed since the items are invalid with the criteria of  $r$  table 0, 444. Thus, only 21 items are valid with an  $\alpha$  reliability coefficient of 0.913.

## 2.6 Data analysis technique

Data collected is in the form of quantitative data. The data analysis technique used in this study is a statistical technique with *chi-square* correlation analysis.

## 3. Results and Discussion

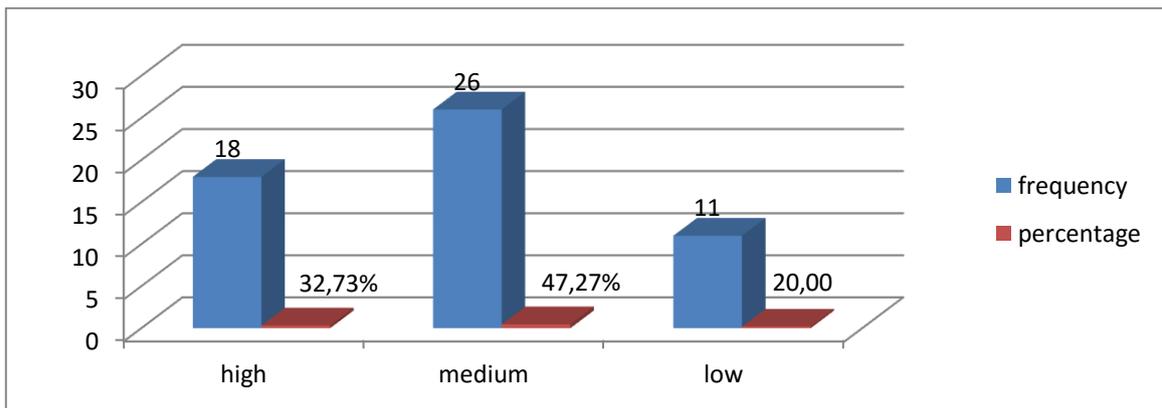
### 3.1. Intensity

The intensity of the use of gadgets by early childhood at Labor Kindergarten of FKIP Universitas Riau can be seen in Table 2 below.

**Table 2** Intensity of Children's Gadget Usage

No	Category	F	%
1	High	18	32.73%
2	Moderate	26	47.27%
3	Low	11	20%
	<b>amount</b>	55	100%

Table 2 shows that there are 18 children in the high gadget use intensity, 26 children in the moderate category, and 11 children in the low category. The graph of the intensity of gadget usage can be seen below.



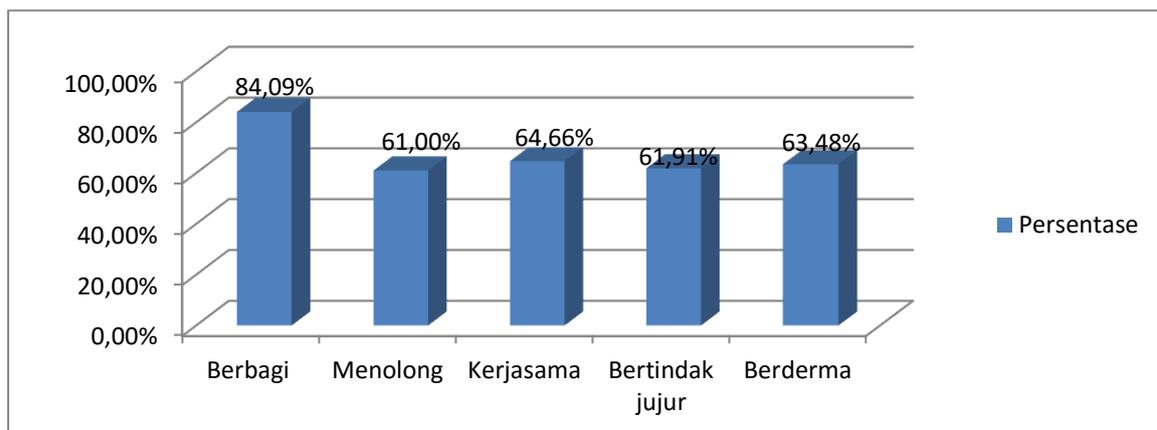
### 3.2 Child Pro-social Behavior

The description of children pro-social behaviour based on data obtained can be seen in table 3 below.

**Table 3** Scores of Children Pro-social Behavior Indicators

No	Indicator	Number of Items	Factual Score	Ideal Score	Percentage %	Category
1	Share	4	740	880	84.09%	Very Good
2	Help	5	671	1100	61.00%	Good
3	Cooperation	4	569	880	64.66%	Good
4	Acting honestly	5	681	1100	61.91%	Good
5	Give away	3	419	660	63.48%	Good
	<b>Total</b>	<b>21</b>	<b>3080</b>	<b>4622</b>	<b>67.02%</b>	<b>Good</b>

Judging from the average pro-social behaviour of children, it is in the category of a good level with the percentage of 67.02. The highest percentage of children pro-social behaviour is in the indicator of sharing with the percentage of 84.0 and the lowest is in the indicator of helping with the percentage of 61.00. The graph of the characteristics of children pro-social behaviour can be seen below.



### 3.3 Bivariate Analysis

To determine the effect of the intensity of the use of gadgets on pro-social behaviour of early childhood, the statistical test of *contingency* test was *conducted*. The results of data analysis can be seen in Tables 3 and 4 below.

**Table 3.** *Chi-Square* Test

	Value	Df	Asymptotic Significance (2-sided)
Pearson Chi-Square	15,489 <sup>a</sup>	4	.004
Likelihood Ratio	15,758	4	.003
Linear-by-Linear Association	6.261	1	.012
N of Valid Cases	55		

**Table 4.** *Contingency* Coefficient Test

		Value	Asymptotic Standardized Error <sup>a</sup>	Approximate T <sup>b</sup>	Approximate Significance
Nominal by Nominal	Contingency Coefficient	.469			.004
Interval by Interval	Pearson's R.	-.341	.121	-2,637	.011 <sup>c</sup>
Ordinal by Ordinal	Spearman Correlation	-.342	130	-2,648	.011 <sup>c</sup>
N of Valid Cases		55			

Based on table 3 and 4, it is known that the value of  $F = 0.469$  and the probability value  $sig t = 0.004$ . Since  $p < 0.05$ , it can be concluded that there is a significant effect on the intensity of the use of gadgets on pro-social behaviour of early childhood.

### 3.4 Discussion

Based on the research conducted, it was found that there was a significant influence on the intensity of the use of gadgets on pro-social behaviour of early childhood. The highest indicator of pro-social behaviour is in the indicator of 'sharing' with a percentage of 84.09. It means that children are very good at sharing moods with others, both joy and sorrow. The 'help' indicator obtained by a percentage of 61.00. It means that the children are classified as good in assisting others around him in the form of material and moral. The indicator of 'collaboration' is in the percentage of 64.66 which means that children are considered good in collaborating to achieve certain goals. In the indicator of 'acting honestly', it is in the percentage of 61.91. It means that the children are classified as good in expressing the reality he encounters. The 'give away' indicator obtained is in the percentage of 63.48. It means that children are classified as good in giving some of what they have to others.

---

The intensity of the use of gadgets affects the pro-social behaviour of early childhood. The distribution of intensity of gadget usage, 18 children or 32.37% was in the high category level. Meanwhile, 26 children or 47.27% were in the moderate category and 11 children or 20% were in the low category level.

Based on *Pearson Chi-square*, it is obtained that the value of F is 0.469 and *sig t* probability = 0.004. This means that the intensity has a significant influence on pro-social behaviour of early childhood.

#### 4. Conclusions

Based on the results of the study, it can be concluded that there is a significant effect on the intensity of the use of gadgets on pro-social behaviour of early childhood. Therefore parents must be able to balance the use of gadgets in children. Thus, children will be able to improve their pro-social behaviour.

#### References

- Asih & Pratiwi. (2010). "Prosocial Behavior is Seen In Terms of Empathy and Emotional Maturity". *Psychology Journal*, 1, No. 1.
- Baron, Robert A., Donn Byrne. (2005). *Social psychology, volume 2. Tenth Edition* (Alih Bahasa: Ratna Djuwita, dkk). Jakarta: Erlangga.
- Castelluccio, M. (2007). "Gadget An- Essay". <http://www.thefreelibrary.com/Gadgets--an+essay.-a0170115914>
- Hermawan Kartajaya.2010. *Brand Operation The Official MIM Academy course book*. Jakarta : Esesnsi Erlangga Group.
- Hogg, A., & Vaughan, GM. 2002. *Social Psychology* (3rd edition). London: Prentice Hall.
- Sari. T.P dan Mitsalia. A.A. 2016. "The Influence of Gadget's Use One the Preschool Social Personnel of Al mukmin Kindergarten." *Profession*, (Online), Vol. 13, No. 2, in (<http://ejournal.stikespku.ac.id> diakses 12 Februari 2017).
- Sugiyono. (2013). *Quantitative, Qualitativ, and Methods of Mixed Research*. Fourth Edition. Bandung: ALFABETA.
- Tinne. R.D (2012). *Prosocial behavior based on gender. Psych Major* FIP UPI. Bandung. unpublished.