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# The Effects of Gadget Games on Early Childhood Moral Behavior in Kindergarten in Kuok Sub-district, Kampar District

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**Abstract.** The objectives of this study are to (1) obtain an overview of the categories of early childhood moral behaviour in kindergarten in Kuok sub-district; (2) obtain an overview of the intensity category of the use of gadget games by kindergarten children in Kuok sub-district, and (3) know the effect of gadget games on early childhood moral behavior in Kindergarten in Kuok Sub-district, Kampar District. The research method used was a survey with descriptive methods and simple correlation. The study population is children at the age of 5-6 years as many as 388 children and as many as 172 children were taken randomly as the sample. Data collection techniques by distributing a set of questionnaire, observations and limited interviews. Meanwhile, the data analysis technique is a descriptive statistics technique and the chi-square person correlation test. The results showed that the moral behaviour of children aged 5-6 years in kindergarten in Kuok sub-district, Kampar District was in the high category (66.85%), while the intensity of the use of gadget games varied in the high category of 11.05%, moderate 35.47%, and 53.49% low. Person chi-square correlation test proved to affect the intensity of the use of gadget games on children's moral behaviour. However, the magnitude of the effect of the intensity of the use of gadget games on children's moral behavior is very small (3, 68 %). This means that other factors have more influence on a child's moral behavior. Therefore, further research is needed by identifying other dominant factors that influence early childhood moral behavior in kindergarten.

**Keywords:** *Gadget games, moral behavior, early childhood*

## 1. Introduction

Early childhood moral behaviour needs serious attention to all stakeholders since it is a golden generation and expensive assets for a nation that is superior and advanced forward, especially in the era of transparency with global competition more tight and heavy. Therefore, it is necessary to prepare children mentally early on with the provision of moral and religious values so that they become intelligent and noble (moral, character) generation. In this case, the role of Early Childhood Education (ECD) is very important and determines efforts to develop children's self-potential optimally. ECD program in the essence of education is organized to facilitate the overall growth and development of children and emphasize the development of all aspects of the child's personality (Masitoh, et al, 2005). ECD is a very effective way to build a positive character (noble character) because of the innocent nature of the child, likes to imitate, and relatively clean memory, heart, and imagination. According to Suyanto (Director General of Primary and Secondary Education Management, Paper, 2009), emphasized that education character that is applied systematically and continuously, a child will become emotionally intelligent. This emotional intelligence is important in preparing children for the future because someone will be easier and more successful in facing all kinds of life's challenges, including challenges to succeed academically. According to Permendikbud Number 137 of 2014 concerning Early Childhood Education Standards; Article 7; Paragraphs (1) and (3) are: (1) Level of Achievement of Child Development is the growth and development of children that can be achieved at

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a certain age range. (3) Child development as referred to in paragraph (1) is an integration of the development of aspects of religious and moral values, physical-motorist, cognitive, language, and social-emotional, as well as art. As for the moral behavior of children related to aspects of the development of religious and moral values with indicators : 1. knowing the religion that is embraced, 2. doing worship, 3. behaving honestly, caring, polite, respectful, sportsmanship, etc., 4. maintaining personal hygiene and the environment, 5. knowing religious holidays, 6. respecting (tolerance) other people's religions ( Permendikbud Number 137 of 2014).

At present, many factors can destroy the morality of the nation's children, including through electronic games that are easily accessed by all levels of society through gadgets on smartphones. Game according to Conny R. Semiawan (2008: 19-20) is a variety of activities that are designed with the intention that children can improve certain abilities based on learning experiences. The game is a tool for children to explore their world from what the child does not know what the child knows and from what he cannot do until he can do it. Hurlock (1978: 280) suggests the understanding of the game is as a process of physical or psychological activity that is fun and exciting. For children, playing is a typical activity as work which is a typical adult activity in life. According to Adang Ismail (2009: 5) game is an absolute part of a child's life and is an integral part of the process of forming the child's personality. It means that with and from game children learn to live. According to Joan Freeman and Utami Munandar (in Andang Ismail, 2019: 16), the game is as an activity that helps children to achieve complete development, like physical, intellectual, social, moral, and emotional. There are many kinds of games for Early Childhood, starting from the simplest game, free game, until the complex game or just a game which only have rules of play, from just observing others' people game until to be involved into the game in groups.

A phenomenon of deviation moral behaviour of children of the nation, including the moral behaviour of early childhood looks very worrying. Through newspapers, television, and electronic social media aired or exposed cases of early childhood who speak impolitely, often imitate scenes of violence, imitate the behavior of adults who are not worthy of imitation, such as acts of pornography and porno-action, as well as scenes of violence against peers, and even imitating suicide scenes; and one more thing that is very troubling is that there are early childhood who use drugs or drug victims. The dominant factors are supposed to influence the moral behaviour of early childhood is a well-liked gadget game and easy access through electronic devices such as a smartphone. The gadget is a term derived from English, which is a small electronic device that has a specific purpose and function to download the latest information with various technologies and the latest features, thus making human life more practical. Gadgets themselves can be in the form of computers or laptops, tablet PCs, video games and also cell phones or smartphones (Indrawan, 2014 from Dewanti, Widada and Triyono, 2016, p127; Iswidharmanjaya, 2014, p7). Game in a gadget is the modern game. Modern game is a game that is done by using technology tools that have been developed in the community and played by more or less two people, can even be done alone without any playmates such as play stations and on-line games.

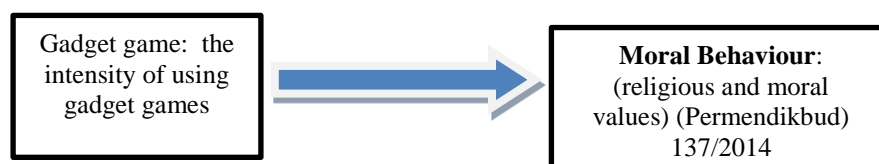
This virtual game can make players as if they were living in the real world. Gadget games, in addition to having a positive impact, also have a negative effect if it is played excessively without being selective and lacking supervision from surrounding adults, specifically from teachers and parents. The negative impact of gadget games, according to Puji Asmaul Chusna (2017), can reduce concentration power and increase children's dependency to be able to do things that they should be able to do on their own. Another impact is the increasingly open internet access in gadgets that display all the things that should not be seen by children. Many children begin to get addicted to gadgets and forget to socialize with the surrounding environment which has a psychological impact, especially a crisis of self-confidence also on the physical development of children.

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Based on the reasons given above, the researchers raised the issue of the influence of gadget game against moral behaviour of early childhood in kindergarten, Kuok sub-district, Kampa District. Issues examined and discussed is how much influence of gadget game against the moral behavior of early childhood? The purpose of research and discussion to describe the moral behaviour and the intensity of the game gadgets by early childhood and examine the effect of the intensity of the game gadget against moral behaviour in early childhood kindergarten in Kuok sub-district, Kampar District.

## 2. Methodology

In accordance with the problems and research objectives, the research methods used was a descriptive survey and simple partial correlations were performed in Kuok sub-district, Kampar District, Riau Province in the year of 2019. The population is all early childhood at the age of 5-6 years as many as 388 children. Samples were taken randomly as many as 172 children. Data collection techniques are through the distribution of questionnaires that are based on a grid of indicators of research variables, namely moral behavior based on aspects of the development of religious and moral values of children aged 5-6 years (in Permendikbud RI number 137 in 2014) and the variable impact of the intensity of the application of the gadget on child moral behavior. A questionnaire filled by the teacher and parents of children. Observations and limited interviews were also conducted with teachers and parents encountered. Meanwhile, data analysis techniques, firstly by checking and reducing the data obtained from the field, secondly by providing data codes and scoring (quantitative analysis); and second, calculating the percentage of the ideal score comparison and factual score times 100% (factual score / ideal score x100%) to describe the child's moral behavior and intensity of gadget games by early childhood; then Chi-Square person test to determine the effect of the intensity of gadget games (variable X) on moral behavior (variable Y) of children aged 5-6 years. The scheme of relation of variable X and variable Y can be seen in the figure below.



## 3. Results And Discussion

### 3.1 Overview of Early Childhood Moral Behavior

Based on the measured moral behavior indicators, a description of the moral behavior category of children aged 5-6 years in Kuok sub-district Kindergarten, Kampar District is shown in table 1 below.

**Table 1.** Early Childhood Moral Behavior (age 5-6 years)

No.	Indicator	Factual Score	Ideal Score	Percent age (%)	Category
1	Knowing the Religion that Embraced	3775	5504	68.59	High
2	Working Worship	2180	3440	63.37	High
3	Be honest, helpful, polite, sportsmanlike, etc.	3992	6192	64.47	High
4	Maintaining personal hygiene and the environment	4921	6880	71.53	High
5	Knowing Religious Holidays	1260	2064	61.05	High
6	Respecting (tolerance) other people's religions	1809	2752	65.73	High
	<b>Total</b>	<b>17937</b>	<b>26832</b>	<b>66.85</b>	<b>High</b>

Criteria for categories of moral behavior of children:

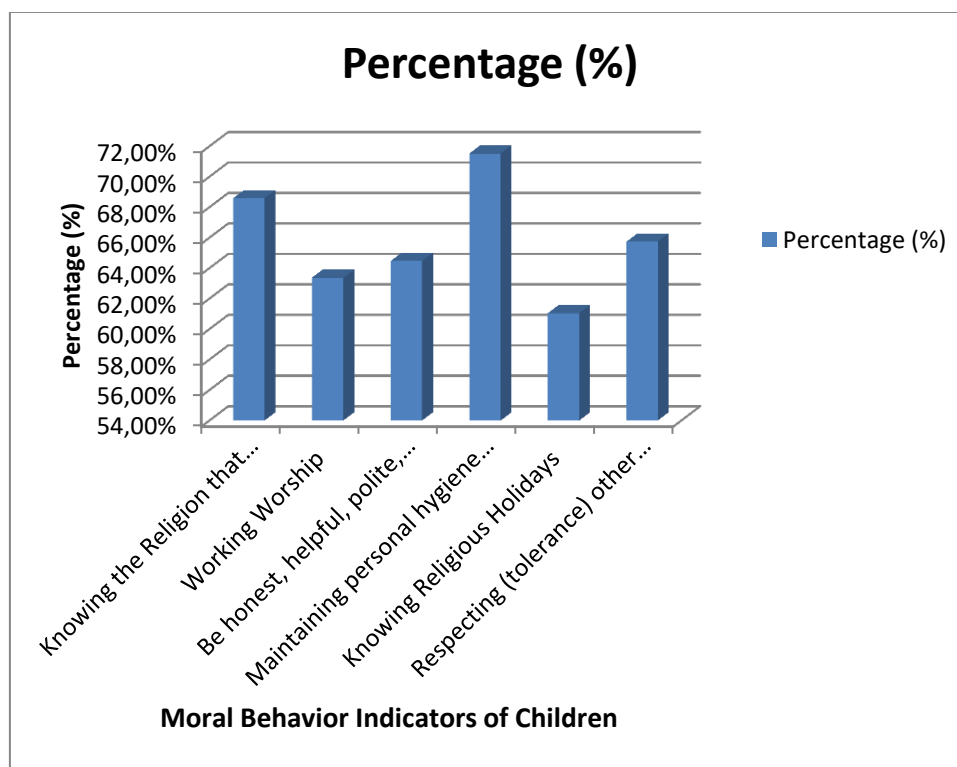
76% - 100% : Very high

56% - 75% : High

41% - 55% : Mediocre

40% - 0% : Low

Based on table 1 above, it can be seen that the overall indicators of moral behaviour of children are in the high category with a percentage achievement score of 66,85%. It means that the moral behaviour of children score is good. However, it needs to be increased until the category is very high (> 76% - 100%). The description of categories per indicator of early childhood moral behaviour of kindergarten in Kuok sub-district, Kampar District can be seen in graph 1 below.



**Figure 1 .** Early childhood moral behavior Indicator graph at the age of (5-6 Years) in kindergarten in Kuok Sub-district, Kampar District

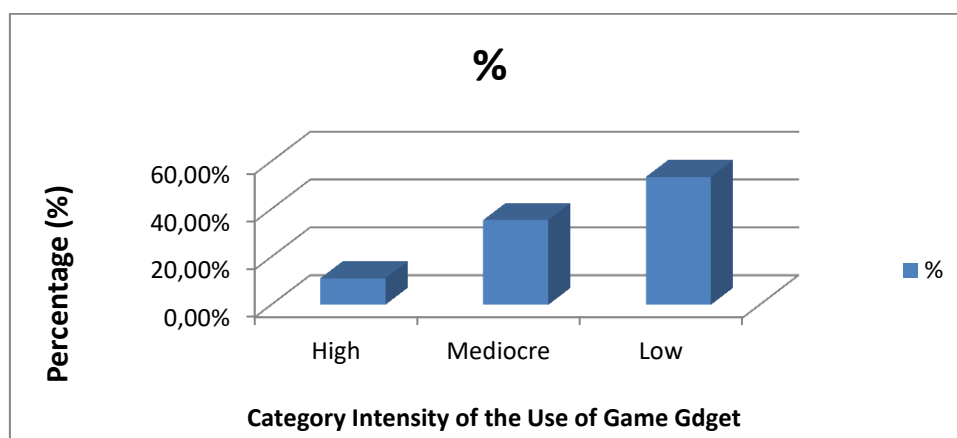
### 3.2 Intensity of Use of Gadget Games by Early Childhood

The intensity of the use of game gadgets by early childhood can be seen in terms of frequency and duration. Intensity based on the frequency of using gadget games by early childhood (5-6 years) in kindergarten Kuok sub-district, Kampar District can be seen in table 2 below.

**Table 2.** Intensity frequency of the use of game gadgets by early childhood

Intensity Score Category for Gadget Usage			
Category	Intensity	F	%
High	More than 3 times a day	19	11.05%
Mediocre	2 - 3 times a day	61	35.47%
Low	Less than 2 times a day	92	53.49%
<b>total</b>		<b>172</b>	<b>100%</b>

According to the data above, it is known that the intensity of the use of game gadgets by children aged 5-6 years in kindergarten Kuok sub-district, Kampar District is the most (53,49%) in the low category (less than 2 times a day). However, the high category intensity (more than 3 times a day) is quite a lot (11,05%). Children with high intensity and moderate use of gadget games need to get the attention of parents and teachers because it can be harmful to early childhood development. To get a clearer picture of the intensity of the frequency of the use of gadget games by kindergarten children in Kuok sub-district, see graph 2 below.



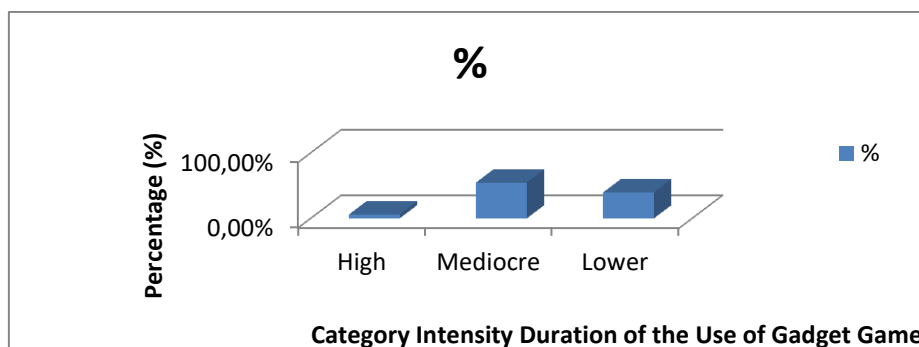
**Figure 2.** Intensity Graph of Using Gadget Games by early childhood in Kindergarten in Kuok sub-district

The intensity based on the duration (time) of the use of Gadget Games by early childhood (5-6 years) in kindergarten in Kuok sub-district, Kampar District can be seen in table 3 below.

**Table 3 .** Intensity duration (time) of the use of Gadget Games by early childhood

Category Score Duration of Use of Children's Gadgets			
Category	Duration	F	%
High	75 - 120 minutes	10	5.81%
Mediocre	40 - 60 minutes	94	54.65%
Low	5 -30 minutes	68	39.53%
<b>total</b>		<b>172</b>	<b>100.00%</b>

According to the data above, it is known that the intensity in terms of duration (time) of the use of game gadgets by early childhood (5-6 years) in kindergarten Kuok sub-district, Kampar is the most (54,65 %) in the category of mediocre (40-60 minutes multiply playing gadgets). Meanwhile, the intensity of the duration of the high category (75-120 minutes per time playing the gadget ) is relatively small (5,81%). Associated with the frequency and duration of the use of gadget games is quite a lot. Therefore, parents and kindergarten teachers in the sub-district of Kuok, district of Kampar needs to control or decrease the intensity of the category of high and mediocre into the category of low to prevent adverse effects on early childhood development. To get a clearer picture of the intensity of the duration (time) aspect of the use of gadget games by an early childhood in Kuok sub-district, see graph 3 below.



**Figure 2.** Intensity duration (time) of the use of Gadget Games by early childhood

### 3.3 Effects of gadget games on early childhood moral behavior

Based on the results of the correlation test of person chi-square proved that there is an influence of the intensity of the use of gadget games on the moral behaviour of early childhood (the results of the calculation of the person Chi-Square = 6,609 > 5,991 (Chi-Square table index) with a significance level of 0.037% (below 0,05 % standard error). This means that there is a significant influence on the intensity of the use of gadget games on the moral behaviour of children aged 5-6 years in kindergarten in Kuok Sub-district, Kampar District. Data analysis of Person chi-Square can be seen in table 4 below.

**Table 4.** Chi-Square Tests (Effects of gadget games on early childhood moral behavior)

Component Analysis	Value	df	Asymptotic Significance (2-sided)
Pearson Chi-Square	6.609 <sup>a</sup>	2	.037
Likelihood Ratio	8.892	2	.012
Linear-by-Linear Association	6.540	1	.011
N of Valid Cases	172		

a. 1 cells (16.7%) have expected count less than 5. The minimum expected count is 2.43.

The magnitude of the influence of the intensity of the use of gadget games on early childhood moral behaviour is very small (3,68% of the Contingency Coefficient = 0.192). it means that the contribution of the intensity of the use of gadget games to the moral behaviour of children aged 5-6 years is only 3,68 %. Meanwhile, 96,32% of early childhood moral behaviour is determined or influenced by other factors or variables. So that the gadget games for children aged 5-6 years need not be overly worried because other factors have a greater influence on children's moral behaviour. Therefore, it is necessary to further research on the moral behaviour of early childhood in kindergarten by identifying dominant

factors besides the intensity of the use of gadget games on the moral behaviour of early childhood. The results of Contingency Coefficient data analysis can be seen in table 5 below.

**Table 5.** Data Analysis of Effects of Gadget Games on Moral Behavior of Children

	Value	Asymptotic Standardized Error <sup>a</sup>	Approximate T <sup>b</sup>	Approximate Significance
Nominal by Nominal    Contingency Coefficient	.192			.037
Interval by Interval    Pearson's R	-.196	.052	-2.600	.010 <sup>c</sup>
Ordinal by Ordinal    Spearman Correlation	-.195	.060	-2.591	.010 <sup>c</sup>
N of Valid Cases	172			

a. Not assuming the null hypothesis.

b. Using the asymptotic standard error assuming the null hypothesis.

c. Based on normal approximation.

#### 4. Conclusion And Suggestions

Based on the findings of the research and discussion that researchers conducted, it can be concluded that the early childhood moral behaviour at the age of 5-6 years in kindergarten in Kuok sub-district, Kampar District is in the high category (66.85%), while the intensity of the use of gadget games turns out to be high categories 11.05%, mediocre 35.47%, and low 53.49%. Person chi-square correlation test and Contingency Coefficient proved to affect the intensity of the use of gadget games on the early childhood moral behaviour, but the magnitude of the influence of the intensity of the use of gadget games on the early childhood moral behaviour was very small (3,68 %). It means that the other factors are greater (96,32 %) its influence on the moral behaviour of children aged 5-6 years. As a suggestion, based on data on the intensity category of the use of gadget games by early childhood, parents and teachers need to control the activities of playing gadget children by reducing the intensity of the high and mediocre categories in the aspect of frequency and duration of time to prevent adverse effects on early childhood development. Likewise, parental and teacher monitoring functions of possible types and content of gadget games that adversely affect children's moral behaviour, such as pornography, rough games such as action cartoon scenes, silat, boxing, smack-down, murder, and warfare. Furthermore, given the large determination of the intensity of the use of gadget games is relatively small on children's moral behaviour, it is necessary to conduct further research by identifying the dominant factors that influence the early childhood moral behaviour in kindergarten.

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