



AN ANALYSIS OF THE EFFECTS OF THE APPLICATION OF MOBILE PHONES IN CHILDREN IN SIDOMULYO VILLAGE AND KERTOSARI ESTATE HOUSING PONOROGO

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Abstrak

Handphone sebagai alat komunikasi yang saat ini berkembang dengan cepat, baik di kalangan orang tua, remaja, dan anak-anak. Tujuan dari penelitian yang dilakukan bertujuan mengetahui pengaruh handphone terhadap anak-anak di kelurahan dan perumahan kertosari ponorogo. Penelitian ini menggunakan variabel moderasi yaitu peran dari orang tua. Populasi penelitian yaitu orang tua di lingkungan desa Sidomulyo dan Perumahan Kertosari Estate Ponorogo. Adapun sampel yang dipilih adalah orang tua berusia 3-12 tahun. Metode analisis adalah dengan menggunakan analisis statistik deskriptif, uji kualitas data atau uji keabsahan data, analisis regresi dan kemudian dilanjutkan dengan melakukan pengujian hipotesis dengan aplikasi SPSS (*Statistical Product an Service Solution*). Adapun pengujian hipotesis pertama menunjukkan bahwa penggunaan handphone berpengaruh terhadap tingkat sosial dan emosional anak. Pengujian hipotesis kedua menunjukkan bahwa peran orang tua dapat mengontrol anak dalam menggunakan handphone dengan tingkat sosial dan emosional anak.

Abstract

Mobile Phone is a communication tool that is currently developing rapidly, both among parents, adolescents, and children. This study aimed to determine the effects of handphones on children in Sidomulyo village and Kertosari housing Ponorogo. This study used a moderating variable that is the roles of parents. The study population were parents in the village of Sidomulyo and Kertosari Estate Housing Ponorogo. The samples selected were parents aged 3-12 years. The analytical method used descriptive statistical analysis, data quality test or data validity test, regression analysis and then proceeded with hypothesis testing with the application of SPSS (Statistical Product and Service Solution). The first hypothesis testing showed that the use of mobile phones affected the social and emotional level of children. The second hypothesis testing showed that the role of parents could control children in using mobile phones with the children's social and emotional levels.

INTRODUCTION

Mobile phones that children use need supervision from their parents, so that children are not addicted to or cannot be separated from mobile phones that children begin to process in a period of self-development. The aspect of growth is very important for children, so that the use of mobile phones is not a problem in the growth and development of children. Some opinions related to children's growth and development, according to Sujiono (2013, p.6) that the early age of children in periods of rapid and fundamental development processes in life onwards. Goleman (2016, p.7) emotions are actions of feelings, psychological conditions and biological states. Meanwhile, Hurlock (in Nugraha and Rachmawati, 2008, p.18) states the ability to develop behaviors in accordance with social guidance, so that children will find themselves and be able to play a role in real life in the surrounding environment.

The application of mobile phones at this time both children, adolescents and adults is a familiar thing, where the sophistication and ease of using it has been felt without any limitations.

Children will like to linger in using and playing mobile phones.

The tendency in excessive use of mobile phones in use can make someone indifferent or less concerned about the environment around them. The role of parents is needed in monitoring the use of mobile phones by children. Parents must provide direction or instill education in the correct use of mobile phones. The positive impacts include a) game applications can increase stimulation to the children's brain, b) they can find information easily, c) children are more eager to learn, d) Mobile phones foster creativity and the ability of imagination. Meanwhile, the negative impacts include; a) Mobile phones cause children to be lazy in their activities, b) Radiation is harmful to children's health, c) There will be disruption of children's psychological abilities, d) Mobile phones influence the development of the brain in children, e) There will be lack of interaction of children in the surrounding environment.

This study aimed to obtain information on the effects of mobile phones on the level of social and emotional development of children and determine the roles of parents in

controlling and assisting the application of children's handphones in Cekok Village and Kertosari Estate Housing Ponorogo.

LITERATURE REVIEW

This study refers to several previous studies which provide information related to the research conducted. According to Novitasari & Khotimah (2016), the results are knowing and analyzing the influence of gadgets on children aged 5-6 on social attitudes, collecting data with a questionnaire and making observations, while the results of the research are known to be linear regression and liner test of conclusions that is gadget used by children aged 5 - 6 years affects children's social interaction.

According to Radliya, Apriliya & Zakiyyah (2017), the purpose of this study was to describe how the application of devices affects the emotional social development of children at an early age, while the results showed the application of devices had an impact on emotional social development. Sari & Mitsalia's research (2016) showed that the use of gadgets influences children's personal social development at pre-school age.

The definition of a mobile phone is a long-distance communication tool with the existing facilities that can make communicating faster and easier.

Mobile phones can also provide benefits and disadvantages to the users. Some of the benefits of the application of mobile phones include: a) Facilitating long-distance communication, b) Being used as entertainment, c) Being used as a tool for storing documentation, d) Providing convenience in finding information. Meanwhile, the disadvantages incurred are: a) Forgetting time, b) Causing stress, c) Being dependent, d) Being lazy to do activities. The development of information systems that are currently changing more rapidly causes a shift in the shape and behavior of children's development. The long-term impact on children who are addicted to using mobile phones can make children lazy, the development of behavior in interacting is more indifferent to less interacting with the surrounding environment, and can cause stress.

From this explanation, the role of parents in controlling and assisting children when using cell phones is important, and therefore children who

use mobile phones can be directed in their use.

RESEARCH METHODS

The location of the study was in the village of Sidomulyo and Kertosari Estate Housing. The samples of this research were parents in Sidomulyo village and Kertosari Estate housing Ponorogo.

The method used to determine the sample was purposive sampling method (Sugiyono, 2014). Arikunto (2006) states that the sample technique is not based on random, but based on the consideration of certain objectives. The purposive sampling method was chosen because the study used a special criteria used so that in accordance with the aim to solve a research problem with representative values. The advantage of this method was the sample that is suitable for the purpose of the study. The samples used in distributing questionnaires were individuals who were close and easy to meet and close to the researcher. The sample selection criteria was parents of children aged 3-12 years in Sidomulyo Village and Kertosari Estate Housing Ponorogo. This study included children aged 3-12 years children experiencing transition periods and periods of

readjustment to the new school environment, new friends and new relationships in their environment.

Researchers have observed objects, distributed questionnaires and surveyed locations in Sidomulyo Village and Kertosari Estate housing Ponorogo neighborhood.

Researchers have distributed questionnaires to the respondents who have been selected by researchers. Respondents' answers to each item or instrument question were assessed on a Likert scale, strongly disagree to strongly agree, namely scale 1 (STS) to scale 4 (SS).

The research analysis test method, namely Descriptive Statistics, aimed to find out about the characteristics of the respondents and respondents' answers regarding each item of questions in the questionnaire. Data Quality Test or Data Validity Test aimed to have the instrument questions contained in this questionnaire to be held responsibly or not for the validity of the data or the quality of the data. MRA Regression Analysis (Moderated Regression Analysis) aimed to predict the average value of the independent variable which is based on the value of the independent variable outside the sample and Hypothesis Test was used

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to determine the effect of one variable with other variables.

RESULTS AND DISCUSSION

The results of the questionnaire given 24 items in which the number of questionnaires that had no response of feedback were 5 items or 19.2% and 4 incomplete questionnaires or 16.6%. The number of questionnaires processed in the study were 15 namely 64.1%. The results of data processed using SPSS are as follows:

1. Descriptive Statistics

Table 1. Descriptive Statistics Respondents

Characteristics	Group	Total	Percentage
Parents' Education	Senior High Schools	9	60%
	D2	2	13.3%
	S1	4	26.7%
	Total	15	100%
Parents' Occupation	Entrepreneur	3	20%
	Private	8	53.3%
	Housewife	4	26.7%
	Total	15	100%
Children's Age	3-6 years old	3	20%
	7-12 years old	12	80%
	Total	15	100%
Children having Mobile Phones	Yes	11	73.3%
	No	4	26.7%
	Total	Total	100%

The results of respondents from descriptive statistics research aimed to get a picture of the characteristics and demographics of respondents that show about education, occupation, age of the children and the application of mobile phones by children.

Table 2. Variables Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation
Application of Mobile phones	15	23.00	75.00	47.3333	13.79268
Parents' Roles	15	47.00	80.00	70.2667	9.57278
Children's Emotional and Social Level	15	25.00	77.00	42.2667	13.89484
Valid N (listwise)	15				

Based on table 2, it was known that the total respondents in the study were 15. Variables of mobile phones application had a minimum value of 23, a maximum value of 75. The average was 47.3 with a standard deviation of 13.8. Variable of parents' roles had a minimum value of 47 and a maximum value of 80. The average was 70.27 with a standard deviation of 9.6. Variable of social and emotional levels of children had a minimum value of 25 and a maximum value of 77. Thus, the average was 42.3 with a standard deviation of 13.9. The average was 42.3 for a standard deviation of 13.9.

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1. Validity Test

Table 3. Data Validity Test Results

Application of Mobile Phones (X1)				Corelation			
Item	Person Corelation	r_{tabel}	Caption				
X1-1	0.714	0.514	Valid	X2-1	0.710	0.514	Valid
X1-2	0.740	0.514	Valid	X2-2	0.710	0.514	Valid
X1-3	0.847	0.514	Valid	X2-3	0.710	0.514	Valid
X1-4	0.841	0.514	Valid	X2-4	0.786	0.514	Valid
X1-5	0.573	0.514	Valid	X2-5	0.751	0.514	Valid
X1-6	0.560	0.514	Valid	X2-6	0.798	0.514	Valid
X1-7	0.849	0.514	Valid	X2-7	0.749	0.514	Valid
X1-8	0.643	0.514	Valid	X2-8	0.695	0.514	Valid
X1-9	0.654	0.514	Valid	X2-9	0.850	0.514	Valid
X1-10	0.731	0.514	Valid	X2-10	0.876	0.514	Valid
X1-11	0.800	0.514	Valid	X2-11	0.876	0.514	Valid
X1-12	0.804	0.514	Valid	X2-12	0.864	0.514	Valid
X1-13	0.602	0.514	Valid	X2-13	0.652	0.514	Valid
X1-14	0.800	0.514	Valid	X2-4	0.756	0.514	Valid
X1-15	0.891	0.514	Valid	X2-15	0.905	0.514	Valid
X1-16	0.861	0.514	Valid	X2-16	0.771	0.514	Valid
X1-17	0.705	0.514	Valid	X2-17	0.783	0.514	Valid
X1-18	0.906	0.514	Valid	X2-18	0.803	0.514	Valid
X1-19	0.708	0.514	Valid	X2-19	0.666	0.514	Valid
X1-20	0.833	0.514	Valid	X2-20	0.681	0.514	Valid
Parents' Roles (X2)				Children's Emotional and Social Levels (Y)			
Item	Person	r_{tabel}	Caption				
				Y-1	0.674	0.514	Valid
				Y-2	0.908	0.514	Valid
				Y-3	0.711	0.514	Valid
				Y-4	0.905	0.514	Valid

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Y-5	0.884	0.514	Valid
Y-6	0.728	0.514	Valid
Y-7	0.816	0.514	Valid
Y-8	0.640	0.514	Valid
Y-9	0.908	0.514	Valid
Y-10	0.791	0.514	Valid
Y-11	0.753	0.514	Valid
Y-12	0.905	0.514	Valid
Y-13	0.751	0.514	Valid
Y-14	0.846	0.514	Valid
Y-15	0.905	0.514	Valid
Y-16	0.640	0.514	Valid
Y-17	0.649	0.514	Valid
Y-18	0.846	0.514	Valid
Y-19	0.836	0.514	Valid
Y-20	0.791	0.514	Valid

Based on table 3, it shows that 20 questions on the variable of the application of Handphones are mentioned to be valid because the value $r_{count} > r_{table}$. In the parents' role variables, there were 20 questions mentioned to be valid also because the value of $r_{count} > r_{table}$. In addition, the children's social emotional levels variables containing 20 questions were stated to be valid, where $r_{count} > r_{table}$. In other words, all the questions in

each variable in the questionnaire were stated to be valid.

2. Reliability Test

Table 4. Reliability Test

Item	Cronbach's Alpha	Caption
Mobile Phones of Application (X1)	0.764	Reliable
Parents' Roles (X2)	0.765	Reliable
Childrens' Emotional and Social Levels (Y)	0.766	Reliable

Based on table 4, it was known that the Cronbach's Alpha value of mobile phones use was 0.764. The role of parents was 0.765. The social and emotional level of children was 0.766. Therefore, it can be concluded that the questions on the questionnaire were stated to be reliable or trustworthy where the Cronbach's Alpha value of each variable was > 0.600 .

3. Regression Test Analysis (MRA)

Tabel 5. MRA

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	333.274	86.543		3.851	.003
	Mobile phones application	-4.779	1.539	-4.744	-3.104	.010
	Parents' Roles	-4.587	1.201	-3.160	-3.818	.003
	Moderation _1	.078	.021	6.209	3.641	.004

Based on table 5, the regression equations can be arranged as follows:

$$Y = \alpha + b_1X_1 + b_2X_2 + b_3(X_1X_2) + e$$

...

$$= 333.274 - 4.779X_1 - 4.587X_2$$

$$+ 0.078 + e \dots\dots\dots$$

The explanation is as follows:

1. A constant value of 333.274 indicates that the use of mobile phones and the role of parents did not exist then the value of the social and emotional levels of children was a constant of 333.274
2. The coefficient of the use of mobile phones of -4.779 indicates that each increase in the

use of mobile phones of one unit resulted in a decrease in the social and emotional levels of children of -4.779 units. The coefficient β value of the mobile use variable was negative -4.779. The coefficient of parents roles was -4.587 indicating that any increase in the roles of parents of one unit resulted in a decrease in the social and emotional levels of the child of -4.587 units. The coefficient β value of the parents' roles variable was negative -4.587.

4. Moderating coefficient (X_1X_2) of 0.078 indicates that any increase in the interaction of the use of mobile phones with the roles of parents of one unit resulted in an increase in the social and emotional levels of children by 0.078. The coefficient β value of the interaction of the use of mobile phones with the role of parents was positive, that is 0.078.

4. Partial Regression Coefficient Test (t-Test)

Table 6. t-Test

Variable	Unstandardized Coefficients	Value of t	Sig
(Constant)	333.274	3.851	0.003
Mobile phones Application (X1)	-4.779	-3.104	0.010
Parents' Roles (X1X2)	0.078	3.641	0.004

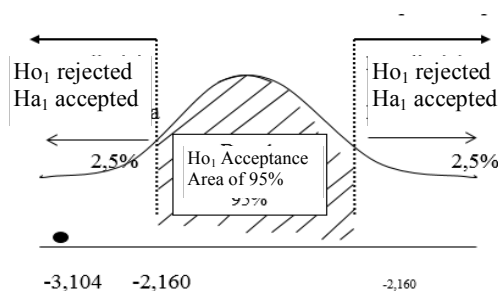
Based on table 6, it indicates that:

1. t_{count} value of the variable mobile phones use was -3.104 with a significance level of 0.010. It can be seen that $-t_{count} > -t_{table}$ which is $-3.104 > -2.179$ with sig. 0.010 < 0.05 . Therefore, it was concluded that the variable use of the budget affected the social and emotional level of children, then H_{01} was rejected and H_{a1} was accepted.
2. The interaction between the use of mobile phones with the roles of parents showed t_{count} of 3.641 with a significance result of 0.004, so it can be said that $t_{count} > t_{table}$ was $3.641 > 2.179$ with sig. 0.004 < 0.05 . So it can be interpreted parents roles can make a change in the relationship between the application of

mobile phones and the children's social and emotional levels, then H_{02} is rejected and H_{a2} was accepted.

DISCUSSION

a. The Effects of Mobile Phones Application on the Social and Emotional Levels of Children



Picture 1. Area of H_{01} dan H_{a1} Rejection and Acceptance

The first hypothesis in this study examined whether there is an effect of the application of mobile phones on children's social and emotional levels. Based on the results of hypothesis testing, the value of $-t_{count} > -t_{table}$ was $-3.104 > -2.160$ with sig. 0.010 < 0.05 . This means that the application of mobile phones affects the social and emotional levels of children, in other words, H_{01} was rejected and H_{a1} was accepted.

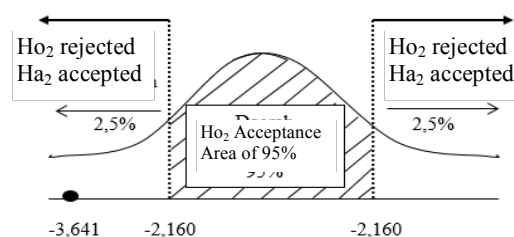
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From the questionnaire data given, it was known that 11 children out of 15 have their own mobile phones. In this case, those who have their own cell phones have a longer time or portion of mobile phones usage. The use of mobile phones from an early age can have a negative impact on children, both immediate and apparent hazards that have long-term effects.

The results of this study support the results of research conducted by Trinika (2015) about the effects of the use of gadgets on the psychological development of preschool age children, where it is said that there is an effect between the use of gadgets and psychological development. In addition, it is similar to a study conducted by Imron (2017) about the relationship of the use of gadgets with the social and emotional development of preschoolers in South Lampung district. It explains when children are addicted to or dependence on gadgets, surely they feel that the gadget is part of one of their lives.

b. The Role of Parents in Moderating Mobile Phones Use on

Social and Emotional Levels of Children



Picture 2. Area of Ho₂ dan Ha₂ Rejection and Acceptance

The second hypothesis in this study examined whether the role of parents in moderating the use of mobile phones on children's social and emotional levels. Based on the results of hypothesis testing, the value of $t_{count} > t_{table}$ was $3.61 > 2.160$ with sig. $0.004 < 0.050$. This means this is the role of parents in moderating the use of mobile phones to the social and emotional levels of children or where Ho₂ was rejected and Ha₂ was accepted.

The role of parents to supervise children in the use of mobile phones is necessary. It is expected the application of mobile phones does not have an impact on the social and emotional levels of children. Parents will be an example for their children in the use of mobile phones. If children

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often see their parents using mobile phones so that the child's desire to use is increased too. The role in the family is very influential on the children's social and emotional development. Therefore, parents must pay attention to children's activities, both at school and at home as well as provide motivation to children and to play together, do not let children feel neglected.

CONCLUSION

Based on the results obtained, it can be concluded as follows: (1) The application of mobile phones affected the social and emotional levels of children in Sidomulyo village and Kertosari housing Ponorogo. (2) The role of parents moderated the use of cellphones with the social and emotional levels of children in Sidomulyo village and Kertosari housing Ponorogo.

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