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The Impact of Gadgets on Elementary School Children's Emotional Development

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Abstract

The goal of this study was to see how using gadgets affected the emotional development of elementary school children in the Masmambang, Talo, and Seluma districts. This is a quantitative study that employs inferential statistical techniques, which are statistics used to analyze sample data and produce results that apply to the entire population. The population in this study consisted of 30 high school elementary school children, and the sample consisted of 20 high school children from Masmambang village, Talo sub-district, Seluma district, chosen at random. Based on the t_{test}, the results of this study were t_{count} = 3.369 and t_{table} at level (0.05) with dk = 18 of 2.101. This indicates that t_{count} is greater than t_{table}, with 3.369 > 2.101. The t statistic test criteria indicate that the hypothesis (Ha) in this study is accepted, namely that there is a significant influence between the variables of gadget use on the emotional development of elementary school children in the Masmambang sub-district, Talo sub-district, and Seluma district, whereas the hypothesis (Ho) is rejected.

Keywords: *Gadgets, Children's Emotional Development*

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INTRODUCTION

The current era's development can no longer be denied. Change is felt in almost every aspect of people's lives, including technological, economic, and social changes. However, the field of technology is rapidly expanding right now. This is understandable given that the vast majority of people use various forms of technological sophistication. For example, now there are gadgets and mobile phones. Initially, the only features available on mobile phones were text messaging and, of course, phone calls. Then, gradually progress to a simple game or game. The image is still far from perfect, but it's better than nothing. After some time, it is now increasingly developing with the existence of mobile phones or gadgets with various colors and various kinds of various features, as well as more and more sophisticated games or games (Anggraini, 2019).

The use of gadgets is now common; initially only used by parents, gadgets are now commonly used by both the elderly and young people. Prior to the Covid-19 pandemic, the use of gadgets by children aged 6 to 12 years was uncommon. However, as the covid-19 pandemic or the covid virus spreads in Indonesia, the use of gadgets among children grows. Furthermore, children are required to learn through gadgets, which are supported by an online or online learning system. At this point, every child is capable of operating electronic devices with ease. Lack of parental supervision of

children frequently results in children using gadgets excessively; children also lose track of time and become lazy to study as a result of the influence of gadgets. Not to mention parents who are unaware of the positive and negative effects of technology. Excessive use of gadgets can frequently alter a child's emotional development, such as a child who was previously quiet becoming angry and even fighting against his parents as a result of the child's gadget. Not to mention the lazy nature that develops as a result of children having too much fun playing with gadgets, causing them to lose track of time, forget to study, forget to pray, and so on. (Swatika, 2018).

Gadgets have many benefits, especially when used correctly, and parents should be allowed to introduce gadgets to their children, but it is important to remember that these gadgets have both positive and negative effects. When used excessively, gadgets can be harmful to children's interpersonal skills. Students rely more on gadgets than on having to study as a result of the use of gadgets on other students' learning achievement (Marpaung, 2018).

Giving children electronic devices without the supervision of adults or older people can have a negative impact on their psychological development. Cases like the one described above have had a minor impact on the physical and even mental health of children who use gadgets. From causing vision damage to children suffering from severe psychiatric disorders. If a child is not accompanied by their parents when playing with gadgets, it will aggravate the child's condition. Playing is permitted, but do not allow the child to linger in the game until it has an impact on the child himself.

Childhood begins at the age of two years and lasts until the child reaches sexual maturity. There were significant changes, both physically and psychologically, between the ages of 11 and 12 for girls and 12 years for boys. Early childhood and late childhood are the two stages of childhood. Early childhood lasts from the ages of two to six years, while late childhood lasts from the age of six until the child reaches sexual maturity.

The child's development will be very rapid by the time he or she reaches elementary school age, which is between 6 and 12 years old. Not only is physical development important, but so is psychological development. They will learn physical skills while playing, as well as fundamental skills in reading, writing, and arithmetic, as well as relationships with family and peers.

Gadgets are not only useful for communicating, but they can also help with other tasks. At this time, it is common for parents to provide their children with electronic devices as study and play companions. Gadgets have taken over the role of parents who used to be playmates for their children. Given that elementary-aged children lack thinking maturity, they have limitations in sorting out and selecting what is positive or negative, and which is good or bad. The cognitive development of elementary school-aged children is an important aspect to know and understand. Some examples of gadget use include internet addiction and video games.

Humans are capable of seeing into the future. The human mind is capable of creating desired technology and developing science. Science and technology are inextricably linked because without knowledge, no new applications for technology can be developed, and without technology, no one can enjoy scientific discoveries. The advancement and development of science and technology is accelerating. The advancement of technology and information in the world has been marked by advances in the field of information and technology, and Indonesia is one of the nations involved in the advancement of this information and technology media.

Parents are sometimes unaware of the many impacts that will occur in their child's development, so they are unaware of the speed and delay that occurs. Even if there has been a developmental delay in children, they require prompt treatment to ensure their long-term survival (Murni, 2017).

Parents play an important role in bringing children to physical and spiritual maturity in the cognitive, affective, and skill dimensions, with the goal of developing mental, spiritual, moral, intellectual, and professional aspects. Interactions with the environment, both from the family

environment and other people around them, have a strong influence on children's emotional development. Emotions will develop in accordance with the emotional impulses received.

Children's emotional development is characterized by their proclivity to express their emotions freely and openly. At that age, children frequently display anger and envy. In terms of language, most children enjoy talking and telling stories, especially in groups. The process of growth and development can be used to assess a child's quality. The interaction of genetic and environmental factors results in the process of growth and development. Environmental factors include the biological, physical, psychological, and social environment, whereas genetic/hereditary factors are factors related to genes originating from the father and mother (Nurmalitasari, 2015). Based on this context, the research problem is identified as follows: First, there is a lack of parental supervision of children when they use technology. Second, because of the use of gadgets, children lose track of time and become lazy to learn. Third, parents are less aware of the consequences of using technology.

To avoid deviations and mistakes, the researchers provide limitations on the problems in this study, namely: First, when compared to other types of gadgets, the use of smartphone gadgets in elementary school children in the Masmambang sub-district, Talo sub-district, and Seluma district is very high or in high demand by children. The second effect of gadgets on children's emotional development is that the child's memory is so strong that it affects the child's own growth process. Third, the data used in this study are high-class public elementary school children aged 10-12 years in the Masmambang sub-district, Talo sub-district, and Seluma district, who have all used smartphone gadgets on average.

The researchers' initial observations in the Masmambang sub-district, Talo sub-district, and Seluma district. When researchers observed the emotional development of public elementary school children who had used gadgets, they found that when children were asked by their parents to ask for help sweeping the house, they didn't want to and were angry if they were disturbed while playing gadgets. If the child already has the gadget, the child is more focused on playing the gadget than on orders or orders from their parents; even children struggle to care about the people around them. Children do not want to play with their friends and prefer to play with their gadgets at home. The use of gadgets for public elementary school children has a positive impact as well; children who previously had difficulty learning can use gadgets to ask their friends questions, and children can communicate with each other remotely.

The researcher is interested in studying "The Influence of Using Gadgets on the Emotional Development of Elementary School Children in Masmambang Village, Talo District, Seluma Regency" based on the description above. This is necessary because, according to a preliminary survey in the form of conservation in that location, many children have used gadgets to the point of forgetting the time and experiencing changes in behavior in children's emotional development.

METHODS

In this study, quantitative research was conducted using inferential statistical techniques, which are statistics used to analyze sample data and the results apply to the population. Correlational quantitative research is a broad research approach that focuses on assessing covariation among naturally occurring variables. This method is used to describe the broadest possible impact of using gadgets on the emotional development of elementary school children in the Masmambang, Talo, and Seluma districts (Notoadmojo, 2013).

The population in the study consisted of 30 high-class public elementary school children from the Masmambang sub-district, Talo sub-district, and Seluma district, each of whom already owned a smartphone (Sugiyono, 2011).

Because the primary goal of research is to collect data, data collection techniques are the most strategic steps in research. Researchers will not obtain data that meets established standards if they do not understand data collection techniques (Sugiyono, 2018). The authors use the method of observation, questionnaires / questionnaires, and documentation to collect the necessary data.

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FINDING AND DISCUSSIONS

a. Children Who Frequently Use Gadgets

Based on research conducted on elementary school children in the Masmambang sub-district, Talo sub-district, and Seluma district who frequently use gadgets.

The coefficient of determination (KP) is calculated to determine how much contribution is given between variables X and Y.

KP = (r)2 v X 100%
= (0,789)2 X 100%
= 0,622 = 62,25%

According to the above calculation, the coefficient value is r = 0.622. This value indicates that the gadget use variable (X) has a 62.25% effect on the child's emotional development variable (Y).

The t test is used to test the effect of the independent variable on the dependent variable partially:

$$t = \frac{\mathrm{r}\sqrt{\mathrm{n}-2}}{\sqrt{1-r^2}}$$

$$t = \frac{0{,}622\sqrt{20-2}}{\sqrt{1-(0{,}622)^2}}$$

$$t = \frac{0{,}622\sqrt{18}}{\sqrt{1-0{,}387}}$$

$$t = \frac{0{,}622\,.\,4{,}242}{\sqrt{1-0{,}387}}$$

$$t = \frac{2.638}{\sqrt{0{,}613}}$$

$$t = \frac{2.638}{0{,}783}$$

t = 3.369

The significance test using the t test yielded t_{count} = 3.369 and t_{table} at level (0.05) with dk = 18 yielded t_{table} of 2.101. This means that the t_{count} value is greater than the t_{table} value, namely 3.369 > 2.101, the test criteria for statistical test t, indicating that the hypothesis (Ha) in this study is accepted, namely that there is a significant influence between the variables of gadget use on the emotional development of elementary school children in Masmambang sub-district, Talo district Seluma.

b. Children who rarely use electronic devices

The coefficient test is used to determine the percentage of influence of the independent variable on the dependent variable as follows:

$$r_{xy} = \frac{N\sum XY - (\sum X)(\sum Y)}{\sqrt{(N\sum X^2 - (\sum X)^2 . (N\sum Y^2 - (\sum Y)^2)}}$$

$$r_{xy} = \frac{(20)(55.986) - (1084)(1030)}{\sqrt{(20)(59.032) - (1084)^2 . (20)(53.344) - (1030)^2}}$$

$$r_{xy} = \frac{(1.119.72) - (1.116.520)}{\sqrt{(1.180.64) - (1.175.056).\ (1.066.88) - (1.060.900)}}$$

$$r_{xy} = \frac{3.200}{\sqrt{(5{,}584).\ (5.980)}}$$

$$r_{xy} = \frac{3.200}{\sqrt{33.392}}$$

$$r_{xy} = \frac{3.200}{182.734}$$

$$r_{xy} = 0{,}930$$

The coefficient of determination (KP) is calculated to determine how much contribution is given between variables X and Y.

KP = $(r)^2$ v X 100%

= $(0{,}930)^2$ X 100%

= 0,865 = 86,5%

According to the above calculation, the coefficient value is r = 0.865. This value indicates that the gadget use variable (X) has an 86.5% influence on the child's emotional development variable (Y).

The significance test using the t test yielded t_{count} = 10.691 and t_{table} at level (0.05) with dk = 18 yielded t_{table} of 2.101. This means that the t_{count} value is greater than the t_{table} value, namely 10.691 > 2.101, the test criteria for statistical test t, indicating that the hypothesis (Ha) in this study is accepted, namely that there is a significant influence between the variables of gadget use on the emotional development of elementary school children in Masmambang sub-district, Talo district Seluma.

Based on research conducted on elementary school children in the Masmambang sub-district, Talo sub-district, and Seluma district who rarely use gadgets. This is evident from data analysis using a simple linear regression equation for children who frequently use gadgets. Y = 18.124 + 0.754X, the equation shows that the regression coefficient (b) is 0.754, indicating that whenever gadgets are used on children's emotional development, it increases emotional development by 18.124, as well as in children who rarely use gadgets. Y = 20.543 + 0.573X shows that every child who uses gadgets on children's emotional development has a 0.573 increase in emotional development and a 20.543 increase in emotional development.

The coefficient of determination results show that the gadget use variable (X) makes an effective contribution to the child's emotional development variable (Y), with a coefficient value of r = 0.622 = 62.25% for children who frequently use gadgets and r = 0.865 = 86.5% for children who rarely use gadgets. This value indicates that each variable of gadget use (X) in children who frequently or rarely use gadgets affects the child's emotional development variable (Y).

The hypothesis test results show the effect of using gadgets on the emotional development of elementary school children. According to the t test, t_{count} = 3.369 for children who frequently use gadgets, and t_{count} = 10.691 for children who rarely use gadgets, t_{table} at level (0.05) with dk = 18 of 2.101. This indicates that t_{count} is greater than t_{table}, with 3.369 > 2.101 and 10.691 > 2.101. The t statistical test criteria indicate that the hypothesis (Ha) in this study is accepted, namely that there is a significant influence between the variables of gadget use on the emotional development of

elementary school children in the Masmambang sub-district, Talo sub-district, and Seluma district, whereas the hypothesis (Ho) is rejected. This demonstrates that the use of gadgets by children can improve the emotional development of elementary school children in the Masmambang, Talo, and Seluma districts.

This was also supported by the findings of a study conducted in 2019 by Jessica Citra Juterfan Wau titled the impact of using gadgets on children's behavior at Assisi Private Elementary School Medan Selayang. The study concluded that there were both positive and negative effects of using gadgets on children's behavior at Assisi Private Elementary School Medan Selayang. Looking at the findings of the above study, it is hoped that parents will pay more attention to and supervise their children's use of gadgets, thereby avoiding health issues that have a negative impact on children (Jessica, 2019).

CONCLUSION

Based on the research, it is possible to conclude that using gadgets (X) influences the emotional development of children (Y). The results of data analysis using the simple linear regression equation for children who frequently use gadgets are as follows: Y = 42.515 + 0.754, and for children who rarely use gadgets are as follows: Y = 20.543 + 0.573. The coefficient of determination calculation results show that the gadget use variable (X) provides an effective contribution to the child's emotional development variable (Y) in both children who frequently use gadgets (r = 0.622 = 62.25%) and children who rarely use gadgets (r = 0.865 = 86.5%). Based on the t test, tcount = 3.369 for children who frequently use gadgets and 10.691 for children who rarely use gadgets, ttable at level (0.05) with dk = 18 of 2.101. This indicates that tcount is greater than ttable, with 3.369 > 2.101 and 10.691 > 2.101. The t statistical test criteria indicate that the hypothesis (Ha) in this study is accepted, namely that there is a significant influence between the variables of gadget use on the emotional development of elementary school children in the Masmambang sub-district, Talo sub-district, and Seluma district, whereas the hypothesis (Ho) is rejected.

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