



# THE INFLUENCE OF GADGETS ON SOCIAL INTERACTION PATTERNS AND LEARNING MOTIVATION OF GRADE FIVE STUDENTS AT ADVENT AIRMADIDI ELEMENTARY SCHOOL

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Article DOI: <https://doi.org/10.36713/epra16997>

DOI No: 10.36713/epra16997

## ABSTRACT

The purpose of this research was to identify the relationship between the gadgets use on interaction patterns and students' motivation to learn in grade five of Advent Airmadidi Elementary School. This research used a quantitative approach. The research involved students who were in grade five at Advent Airmadidi Elementary School. The research data were collected from grade five students at Advent Airmadidi Elementary School through a questionnaire that included three elements: gadget use, social interaction patterns, and motivation to learn. The data analysis began with pre-requisite testing, namely normality using the Kolmogorov Smirnov formula, and linearity with linear regression. Furthermore, hypothesis testing was conducted using the manova test to evaluate the differences between several independent variables and the dependent variable. This research shows that first, the social interaction pattern of Grade Five students at Advent Airmadidi Elementary School is influenced by the gadgets use. Second, gadget use influence learning motivation. Third, the social interaction pattern and learning motivation of grade five students Advent Airmadidi Elementary School is influenced by the gadgets use.

**KEYWORDS :** Gadget Use, Social Interaction Patterns, Students' Learning Motivation.

## INTRODUCTION

Technological progress is something that cannot be avoided. Along with the times and scientific advances, technology will always innovate. In this era of globalization, it is very beneficial to be able to surf in cyberspace with very sophisticated technology that can be easily operated (Nainggolan, 2016). Technological innovation in the form of gadgets can be an electronic device that has practical purposes and functions to help human work (Iswidharmanjaya, 2014).

According to the development of this era, gadgets are currently much loved by the community, especially among children to adolescents (Agusli, 2008), even gadgets are not only electronic devices used as communication tools, but have turned into tools for socialization, entertainment, including learning (Kusumadewi, 2016). Gadgets can have a positive impact on their users, namely increasing imagination, training intelligence, increasing self-confidence, and developing problem-solving skills. However, on the contrary, gadgets can also have a negative impact such as decreased school quality, and can damage the physical (e.g. eyes) and mental health of its users (Rozalia, 2017).

However, in many cases, gadgets can be a bridge to social support, especially for individuals who may feel physically isolated or have difficulty interacting in person. Therefore, gadgets can influence social interaction patterns in different ways. The use of

gadgets can also be a bridge to increase insight in digging up information and can affect students' interest in learning, as written in a journal entitled "The Effect of Online Learning Media and Learning Interest on Mathematics Learning Outcomes of Grade Five Students at Public Elementary School 03 Manado" by Banobe et al. (2022), where online learning using electronic devices such as smartphones and laptops combined with interesting learning can help increase math learning outcomes in grade five elementary school students (Lasut et al., 2022).

Although, it is undeniable that gadgets can reduce students' learning interest due to the absence of guidance and supervision from parents in using gadgets, considering that elementary school children experience development in exploring and tend to be happy with new things (Witarsa et al., 2018). This makes the use of gadgets uncontrollable and affects student learning outcomes. Therefore, it is very important in education to understand the impact of software use on social interaction patterns and student interest in learning because the use of electronic devices can have an impact on the quality of student learning (Rogahang et al., 2022).

Therefore, a teacher at school is expected to create an interesting and meaningful learning environment and provide motivation so that someone can be encouraged to act to do something to achieve certain goals (Hamdu & Agustina, 2011). The discipline of



learning and appreciation also play an important role in improving student learning outcomes because student learning motivation is the key to achieving optimal results (Datu et al., 2022).

Moreover, the purpose of this research is to find out whether there is an influence of gadgets on the interaction patterns and learning motivation of grade five students at Advent Airmadidi Elementary School. Similar research has been conducted by (Budiwati et al., 2022) with the title "The Effect of Gadgets on Social Interaction Skills of Elementary School Students". The difference between this research and previous research is in student learning motivation where in previous studies, the research did not look for the influence of gadgets on student learning motivation while in this study, researchers want to see whether student learning motivation can be influenced by the gadgets use or not.

Through this research, it is hoped that it can provide insight to better fellow researchers on how to overcome the problem of gadget use and create a healthier learning environment for students. The researcher hopes that this research will be useful for students, teachers, and parents so that all parties can pay more attention to the impacts that gadget use can have, especially for students who are still in elementary school. Likewise, schools can pay more attention and can also take action against excessive gadget use.

## METHOD

In this research using a quantitative approach with, type of causal associative research. Causal research is a type of research that aims to determine the relationship between two or more variables. The causal relationship is a cause-and-effect relationship, in which one independent variable affects another variable, namely the dependent variable (Sugiyono, 2015). This research used the survey method. This research involved all 71 grade five students of Advent Airmadidi Elementary School in the 58th batch of the 2023/2024 school year. Considering that the population was less than 100, a total of 71 students were taken as samples (Arikunto, 2014). The research data were collected from the grade five students of SD Advent Airmadidi through a questionnaire. Students provided direct data for this study through a questionnaire covering three elements: gadget use, social interaction patterns, and motivation to learn.

The independent variable and dependent variable are the two variables responsible for this study. Social interaction pattern (Y1) and learning motivation (Y2) are the dependent variables. Meanwhile, the independent variable is gadgets use (X).

Data analysis begins with prerequisite testing, namely normality using the Kolmogorov Smirnov formula, and linearity with linear regression. Furthermore, hypothesis testing was carried out using the manova test (Multivariate Analysis of Variance) or Multivariate Analysis of Variance which is used to evaluate

differences between several independent variables and the dependent variable.

The hypotheses of this study are 1) The use of tools has a significant influence on students' social interaction patterns in grade five elementary schools; 2) The use of tools has a significant influence on students' learning interest in grade five elementary schools; 3) The gadgets use has a significant impact on students' social interaction patterns and learning interest in grade five elementary schools.

## RESULTS AND DISCUSSION

The results of descriptive data analysis can be presented as follows: Gadget Use Variable (X): has a value range of 39, with a minimum value of 65 and a maximum value of 104. The average is 86.056, with a standard deviation of 9.628 and a variance of 92.711. While the Social Interaction Pattern Variable (Y1): has a value range of 35, with a minimum value of 69 and a maximum value of 104. The average is 87.985, with a standard deviation of 8.107 and a variance of 65.728. While the Learning Motivation Variable (Y2): has a value range of 41, with a minimum value of 68 and a maximum value of 109. The average is 84.563, with a standard deviation of 8.656 and a variance of 75.449. These results provide an overview of how respondents rated their gadget use, social interaction patterns, and learning motivation. To get a better understanding of the influence of gadget use on social interaction patterns and learning motivation of grade five students at Advent Airmadidi Elementary School, this data will be compared with the category criteria for each variable.

The results showed that in general the gadgets use was in the high category, with 30% of respondents in that category. In addition, 25% of respondents were in the medium category, 14% in the low category, and 7% in the very low category, according to the formula proposed by (Azwar, 2011). While 21.3% of respondents indicated very high social interaction patterns, followed by 35% of respondents in the high social interaction pattern category. In addition, 20% of respondents were in the category of moderate social interaction patterns, 11% in the category of low social interaction patterns, and 4% in the category of very low social interaction patterns. While the description of learning motivation in most respondents, namely 25%, is in the category of very high learning motivation, followed by 28% of respondents who are in the high learning motivation category. Meanwhile, 23% of respondents were in the medium learning motivation category, 17% in the low learning motivation category, and 7% in the very low learning motivation category.

The data analysis of testing the first hypothesis shows the average value (mean) of the social interaction pattern questionnaire is 94.23. Meanwhile, the mean value of the gadget use questionnaire is 90.70. So it is concluded that the social interaction pattern questionnaire is greater than the average value (mean) of the gadget use questionnaire. The normality test of this research data is seen from the Asymp.Sig value. (2-tailed). If Asymp. Sig. (2-tailed) > 0.05 then the data is said to be normally distributed. The



data normality test uses the Kolmogorov-Smirnov test with the aim of evaluating whether the data on a variable has a normal distribution or not (Umar, 2011). The results of testing the normality of the data for the questionnaire value of social interaction patterns are 0.229 and learning motivation is 0.582 and the gadget use questionnaire is 0.306. Therefore, the three data are normally distributed because the Sig value  $> 0.05$ . After testing the normality requirements, the next test is the linearity test. In testing the linearity of the  $X_1Y$  relationship. The results of data analysis using spss show the results of the linearity test for gadget use with social interaction patterns of  $0.364 > 0.05$ . This states that both variables are linear. Data that is normal and has linearity is then tested with Manova test analysis. The result for the calculation of the questionnaire value is  $0.435 > 0.05$ . So it can be concluded that there is an influence of gadget use on the social interaction pattern of grade five elementary school students.

The results of this research are supported by the research findings of Hizam & Hamdi (2020) on the Influence of Parenting on Learning Motivation and Student Learning Outcomes at Mi Yusuf Abdussatar Kediri and MI Attarbiyah Addiniyah Gersik West Lombok. In their research, the findings revealed that parenting has a significant influence on learning motivation. Therefore, this research is in accordance with the opinion of Merriam Webster (Agusli, 2008), where the gadgets use is the use of a mechanical or electronic device with practical use but is often known as a novelty. In addition, nowadays gadgets are more often a medium used as a modern communication tool. Gadgets are increasingly facilitating communication activities and interactions between humans, because now communication activities are developing more advanced with the emergence of gadgets.

The data analysis in testing the second hypothesis shows that the average value (mean) of the learning motivation questionnaire is 94.23, while the questionnaire for gadget use is 90.70. So it can be concluded that the learning motivation questionnaire is greater than the average value (mean) of the gadget use questionnaire. The normality and homogeneity test of this research data is seen from the Asymp. Sig value. (2-tailed). If Asymp. Sig. (2-tailed).  $> 0.05$  then the data is said to be normally distributed. The data normality test uses the Kolmogorov-Smirnov test. The results of testing the normality of learning motivation data are 0.582 and the gadget use questionnaire is 0.306. So that both data are normally distributed because the Sig value  $> 0.05$ . After the data is declared normally distributed, the next step is the linearity test. The result of the linearity test for the relationship between the gadget use variable and the learning motivation variable is  $0.956 > 0.05$ . This shows that the data is linear. Data that are normal and have linearity are then tested with Manova test analysis (Tabachnick & Fidell, 2013). The result for the calculation of the questionnaire score is  $0.435 > 0.05$ . So it can be concluded that there is an influence of gadget use on the learning motivation of grade five students at Advent Airmadidi Elementary School.

The results of testing the third hypothesis with the manova test on Multivariate show that the Sig value. 0.037 for the social interaction pattern, based on the criteria shows that  $(0.037 < 0.05)$ , and the Sig. 0.027 for learning motivation, based on the criteria shows that  $(0.27 < 0.05)$ . So there is a difference between the social interaction pattern and learning motivation that is influenced by the gadget use. So it can be concluded that there is an influence of gadget use on social interaction patterns and learning motivation.

Basically, whether or not a person is mentally healthy is the result of a person's interaction with their environment (Hasanah, 2017). The influence of gadget use on children is felt if it affects children's conditions when learning, such as when children receive lessons at school, children tend to be discouraged. This happens if at home children play gadgets until late at night and parents do not supervise the use of gadgets while at home. On the other hand, by using gadgets, one can find news and even information more easily. Thus, the gadgets use must be used appropriately and as necessary, do not use gadgets excessively because it is not good for children's health and motor development. Based on the explanation above, it can be concluded that the results of this study are in line with the hypothesis ( $H_a$ ), namely that there is an influence of gadget use on interaction patterns and learning motivation.

## CONCLUSION

Based on the research findings and previous discussion, the researcher came to the following conclusions:

1. Social interaction patterns in grade five students at Advent Airmadidi Elementary School are influenced by the gadgets use. This shows that the gadgets use influences the social interaction pattern.
2. The gadgets use has an influence on students' learn interest in grade five students at Advent Airmadidi Elementary School. This result shows that the learning interest is influenced by the gadgets use.
3. There is an influence of gadget use on interaction patterns and learning motivation

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