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## USE OF GADGET AND ACADEMIC ACHIEVEMENT AT SMAN 21 BEKASI CITY

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### Abstract

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The goal of the study is to examine the relationship between gadget use and learning achievement. Quantitative methods are used by researchers. The research population was 276 students. The sample consisted of 73 students taken through random sampling. The researchers use questionnaires. To analyze the data, the researchers use using simple correlation and t test with SPSS Program. The finding: (1) There is a significant correlation between the use of gadgets and academic achievement of class XI students at SMAN 21 Bekasi City. The implication is that students can use gadgets in the learning process in the classroom because using gadgets can develop students' learning independence in solving questions from the teacher. Students who use gadgets in learning will get various kinds of learning resources from the Internet so that students will be more creative and innovative in the learning process.

**Keywords:** Gadget Use; Student; Learning Achievement

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## INTRODUCTION

Advances in information and communication technology have brought major changes to educational conditions. One example of this change is the use of gadgets by students to access various kinds of knowledge on the internet. In January 2023, there were 212.9 million people using the internet in Indonesia, We Are Social and Meltwater reported that this number had increased compared to 2022. In 2022, We Are Social reported that the number of internet users in Indonesia was around 202 million. This condition states that the number of internet users has increased by around 10 million users or 5 percent from the previous year in Indonesia. Based on the data above, the use of gadgets must be used to support the learning process in schools because advances in information and communication technology must be used to develop knowledge. Therefore, schools must create policies regarding the use of gadgets in the classroom.

Students use gadgets to solve their learning problems so that the use of gadgets has a positive impact on students in the learning process. The positive impact of using gadgets for students is that students become creative in using gadgets and students develop their digital abilities. Students become critical in communicating and are able to access various kinds of knowledge (Aprianti et al., 2022), Students can use gadgets to get a lot of information. On the other hand, the use of gadgets can also make students lazy about studying so that the use of gadgets can have both positive and negative impacts on student learning achievement.

The use of gadgets not only has a positive impact on students in learning but it can also have a negative impact on students, such as students being lazy to study because students play online games using gadgets so that students forget the time to study. Next, students become addicted to using gadgets so students don't want to interact directly with their families and friends (Sholekah et al., 2022). Using gadgets can improve student learning outcomes. Based on relevant research results, the use of gadgets in students for the learning process can improve student achievement because students can easily access various kinds of knowledge on the internet anywhere. Students who use gadgets to study will develop their ability to develop their digital literacy skills. Digital literacy has a strong relationship with students' use of gadgets (Ratnasari, 2019). Teachers can use gadgets as learning media that can improve learning achievement. The use of gadgets in the learning process can develop students' abilities to search for sources of knowledge independently. Students are free to look for learning resources so students will get actual references from various sources of knowledge.

Lestari (2022) said that the habits of children who are engrossed in gadgets will affect the brain's ability to capture information. One of them is that when children receive lessons in class it tends to be difficult to understand what the teacher has conveyed. In addition, children also tend to be lazy to study and read books as a result of the tendency to play gadgets so that academic achievement decreases. Nushalinawati (2022) said the use of gadgets has a negative impact on children because children prefer playing games and animations rather than learning. Children always ask for gadgets every day so that children will experience health problems, such as eye problems. If children look at gadget monitors for too long, children can experience eye pain and radiation.

Based on the results of the researchers' observations, SMAN 21 Bekasi City allows students to use gadgets inside and outside the classroom. This policy aims to provide independent learning to students to be independent in finding various sources of knowledge on the internet. SMAN 21 Kota Bekasi also has a program that aims to increase students' digital literacy so that students can use handphone in the learning process. This policy has advantages and disadvantages, such as students can use gadgets to seek knowledge and students can use gadgets to play online games. Therefore, the teacher's role in supervising gadget used in the classroom.

Based on the explanation above, the gadget used on students gives positive and negative impacts so that researchers are interested in examining the relationship between gadget use and learning achievement. Researchers want to know whether the use of gadgets has a positive or negative relationship with student achievement.

## **METHODS**

Researchers used a quantitative method with the simple correlation. The population are all class XI students of SMAN 21 Bekasi City, totaling 276 students consisting of 6 classes, namely XI 1 = 35, XI 2 = 35, XI 3 = 35, XI 4 = 35, XI 5 = 34, XI 6 = 34, XI 7 = 34, and XI 8 = 34. The sample are 73 students who were taken using the Slovin formula with the percentage of leeway used was 10%. Researchers used questionnaire for getting the data.

Researchers tested the validity and reliability before conducting research on the sample. The results of the validity and reliability tests can be seen in the table below.

**Table 1.**  
 Test of Validity of Gadget Use

No	Questions	R <sub>count</sub>	R <sub>table</sub>	Decision
1	I use gadgets to find sources of knowledge.	0.341	0.3610	Valid
2	I use gadgets to find answers to difficult questions	0.351	0.3610	Invalid
3	I use gadgets to look for materials that I don't understand.	0.535	0.3610	Valid
4	I use gadgets to find material that the teacher hasn't explained yet.	0.538	0.3610	Valid
5	I use gadgets to access the internet which is useful for increasing my understanding of material that I don't know yet.	0.562	0.3610	Valid
6	It is easy for me to find material using gadgets that are connected to the internet.	0.440	0.3610	Valid
7	I really like using gadgets because it makes it easier for me to solve a problem.	0.488	0.3610	Valid
8	I like using gadgets to learn easy material.	0.470	0.3610	Valid
9	I like using gadgets to study online.	0.452	0.3610	Valid
10	I am enthusiastic when using gadgets to study.	0.474	0.3610	Valid
11	I like the discussion using gadgets.	0.383	0.3610	Valid
12	I am happy to see the learning animations on the gadget.	0.515	0.3610	Valid
13	I like to use games for learning that are in gadgets.	0.488	0.3610	Valid
14	I like using gadgets to find references in making papers.	0.504	0.3610	Valid
15	I like using gadgets to study independently.	0.512	0.3610	Valid

*Source: processed by researchers*

The results of the validity test of variable Y or learning achievement can be seen below.

**Table 2.**  
 Test of Validity of Learning Achievement Variable

No	Questions	R <sub>count</sub>	R <sub>table</sub>	Decision
1	I have good test scores.	0.508	0.3610	Valid
2	I have good grades.	0.412	0.3610	Valid
3	I have a good Final Test score.	0.520	0.3610	Valid
4	I have good Mid Test scores.	0.564	0.3610	Valid
5	I have good discipline values.	0.530	0.3610	Valid
6	I have the value of a good cooperative attitude.	0.484	0.3610	Valid
7	I have the value of good mutual respect.	0.423	0.3610	Valid

8	I have a good value religious attitude.	0.574	0.3610	Valid
9	I have a good social attitude value.	0.633	0.3610	Valid
10	I have good practice grades.	0.628	0.3610	Valid
11	I have a good portfolio value.	0.574	0.3610	Valid
12	I have the value of making good products.	0.533	0.3610	Valid
13	I have good performance or performance values.	0.599	0.3610	Valid
14	I have the value of making a good work.	0.534	0.3610	Valid
15	I have a practice value that produces good economic value.	0.581	0.3610	Valid

*Source: processed by researchers*

The results of the reliability test for the variables of gadget use and learning achievement can be seen below.

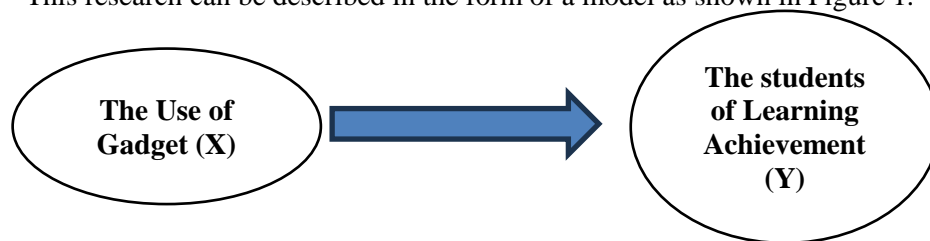
**Table 3.**  
 Test of Reliability

No	Variable	Reliability Coefficient Value	Decision
1	Gadget Use	0.843	Reliable
2	Learning Achievement	0.882	Reliable

*Source: processed by researchers*

Based on the table above, the value of the reliability test results for the gadget use variable is 0.843 and learning achievement is 0.882. Therefore, the instrument for gadget use and learning achievement is reliable. Data analysis techniques using simple correlation analysis with SPSS.

This research can be described in the form of a model as shown in Figure 1.



**Figure 1.**  
 Research Constellation

## RESULTS & DISCUSSION

### *Results*

The results of data analysis can be seen in table below:

1. Gender Data Description

The calculation results can be seen in table 4 below:

**Table 4.**

Gender Data Description

No.	Gender	Frequency	Percentage
1	Male	31	42.5 %
2	Female	42	57.5%
Total		73	100%

*Source: processed by researchers*

There are 31 or 42.5% male students and 42 or 57.5% female students. The Use of Gadget Data Description. The calculation results can be seen in table 5 below:

**Table 5.**

General Description of Class X Students' Gadget Use at SMAN 21 Bekasi City

No	Use of Gadgets	Frequency	Percentage
1	Rarely Use	42	57.5%
2	Sometimes Use	10	13.7%
3	Frequently Use	16	21.9%
4	Always Use	5	6.8%
Total		73	100%

*Source: processed by researchers*

Students who rarely use gadgets are 42 or 57.5%, sometimes use 10 or 13.7%, often use 16 or 21.9%, and always use 5 or 6.8%.

2. The Learning Achievement Data Description

The calculation results can be seen in table 6 below:

**Table. 6.**

Overview of Learning Achievement of Class X Students of SMAN 21 Bekasi City

No	Student Learning Achievement	Frequency	Percentage
1	Not enough	49	67.1%
2	Enough	20	27.4%
3	Good	4	5.5%
Total		73	100%

*Source: processed by researchers*

Students who have poor learning achievement are 49 or 67.1%, sufficient are 20 or 27.4%, and good are 4 or 5.5%.

3. The relation between Gadget Use and Academic Achievement at The Eleventh Grade Students of SMAN 21 Kota Bekasi

The calculation results can be looked in table 7 below:

**Tabel 7.**

The Result of Pearson Correlation

Sig. (2-tailed)	Result
0.028	H <sub>0</sub> is refused and H <sub>1</sub> is accepted

*Source: processed by researchers*

The correlation between gadget use and student learning achievement at The Eleventh Grade Students of SMAN 21 Bekasi City is positive and significant because the significant value is  $0.028 < 0.05$ .

### **Discussion**

#### *The correlation between Using of Gadget and Academic Achievement of Students at The Eleventh Grade Students of SMAN 21 Kota Bekasi*

The simple correlation coefficient value between using of gadget and ACADEMIC achievement of students at The Eleventh Grade Students of SMAN 21 Bekasi City is 0.257, which means that the correlation coefficient value between using of gadget and learning achievement of students is low. Furthermore, the significant value of the hypothesis test results is  $0.028 < 0.05$ . That means there is a correlation between Gadget Use and Student Learning Achievement at The Eleventh Grade Students of SMAN 21 Bekasi City. Suwa et al., (2020) using of Smartphone can increase students' interest in learning and academic achievement. On the other hand, Yunita et al., (2018) said that cell phone use and students' distractions did not have a significant effect on GPA. Mabaroh & Sugianti (2021) said Addiction to playing gadgets in male or female students does not have a negative impact on improving student learning achievement. Students can improve their learning achievements by using gadgets to seek knowledge. On the other hand, the use of gadgets can have a negative impact on students if students do not focus on studying, but students spend a lot of time playing online games. Sharma et al., (2020) stated that using gadgets in learning can have a positive impact on improving student performance in learning because using gadgets in learning gives students the opportunity to be independent, increasing cognitive activity. The use of gadgets can be used to facilitate student learning. Apart from that, the use of gadgets makes the educational process more productive and creative.

### **CONCLUSION**

There is a significant correlation gadget used and academic achievement of class XI students at SMAN 21 Bekasi City. The implication of the results of this study is that teachers should provide opportunities for students to use their gadgets in learning. Teachers must supervise the use of gadgets in the classroom so that teachers can control students in using their gadgets. Schools must establish operational standards for the use of gadgets for students when students are studying in class. The limitation of this research is that the sample was taken only from class XI. Future research must analyze the gender variable as an independent variable that influences learning achievement.

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