



Analysis of the Impact of Gadgets on Student Learning Motivation on High School Chemistry Lessons

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Abstract

This study aims to determine the impact of using gadgets on high school students' learning motivation in high school chemistry lessons. The type of research used in this research is descriptive qualitative. Qualitative research is research that is intended to reveal symptoms as a whole and in accordance with the context or what they are through collecting data with a natural background as a direct source with the key research instruments themselves. So in this study the researchers conducted observations, interviews and documentation. The results of the study show that: 1) the use of gadgets among high school students, especially in chemistry lessons, is used as a communication aid in increasing student learning motivation such as the use of practicum videos and animations. But there are some students who often play games rather than study. 2) the positive impact of using gadgets, students are able to get information and communication easily while the negative impact of using gadgets during class hours can interfere with student learning concentration so that it can affect student learning behavior. Most students often open the internet and communicate for less useful things that can interfere with the learning process. So that it makes students' learning motivation decrease.

Keyword: Chemistry Learning, Gadgets, Motivation

1. Introduction

Learning the development of technology is very important in the development of education. The 5.0 era is the era of digitalization. The majority of people today, from early childhood, adults to the elderly, already have gadgets. Tablets, notebooks and smartphones are also a form of gadget itself. Gadgets are electronic devices that are small and practical, making it easy to find and carry everywhere. Gadgets are very important because it is easy to access various

things to be a communication tool or find the information they need. As the times progress, the technology that is created to be used also develops (Kartiyani, 2020)

In this case, technology was created to provide convenience for human life in carrying out daily activities and provide positive value. However, even though it was originally created to produce positive benefits, on the other hand it is also possible to use it for negative things. Many advanced technologies have been created, for example gadgets. Gadgets are electronic media devices that have various functions and uses. Nowadays gadgets have become a part of life, even human lifestyle. Gadgets are small electronic devices that have specific functions. One thing that distinguishes gadgets from other electronic devices is the novelty element that presents new technology that makes human life more practical (Dewi, 2020). Gadgets are sophisticated items that are created with various applications that can present various news media, social networks, hobbies, and even entertainment (Hidayat & Junianto, 2017).

Now gadgets are no longer just a means of communication, but mobile phones are also tools for creating and entertaining with sound, writing, images and videos (Gusti Yarmi, 2017; Marpaung, 2018). Mobile phones can make it easier for humans to access various information and entertainment that humans want to obtain. The use of gadgets is not only used by adults. At this time the use of mobile phones can already be used by children. Parents' awareness of the importance of having a cell phone for their children nowadays has begun to emerge or grow, so that it can be said that almost all children currently have a cell phone (Arwansyah & Wahyuni, 2020; Putra et al., 2021). Actually the use of mobile phones is shown to adults who have an interest such as business, college or work, so that technological developments can be put to good use. However, the use of technology can also have a negative impact if misused, especially on children. The ease of accessing cyberspace via mobile phones does have positive impacts, including being able to help children adjust their playing speed, processing strategies in games, and helping improve children's right brain abilities while under good supervision. on child development, such as children experiencing health problems, acute addiction or exposure to negative exposures such as pornography and violence (Maroni et al., 2020; Suhardi & Utami, 2019).

In addition, children who often use gadgets often forget their environment. They prefer playing gadgets than playing with friends in their environment. So that social interaction between children and the community, the surrounding environment is reduced and even fades. (Ismanto and Onibala, 2015). Excessive use of gadgets can also lead to the risk of obesity. Obesity will have an impact on children's posture because the use of gadgets in a static position for a long time will increase the risk of postural changes in children.

Learning behavior is a learning habit that is carried out by individuals repeatedly so that it becomes automatic or takes place spontaneously. Learning begins with encouragement, enthusiasm, and effort that arises in a person so that that person does learning activities.

Learning activities carried out adjust to his behavior in increasing his will. Abdul Majid stated in this case, learning is self-development behavior through a process of adjusting behavior. Learning as a process can be said to be a person's activity that is carried out deliberately through adjustments to his own behavior in an effort to improve the quality of his life (Majid, 2013).

There are many factors that influence students in learning. These factors come from internal as well as external. Many cases of study failure are caused by ignorance of what factors can interfere with student learning. Good learning behavior will affect learning outcomes as well. Motivation can be defined as a tool that can move individuals to initiate and control behavior towards certain tasks (Prit et al., 2020). Especially in chemistry lessons. Most of the materials in chemistry learning are still abstract and mostly do practical work. So it is necessary to use electronic-based learning media so that learning can be maximized. Because in gadgets later you can use applications that support chemistry learning media such as practicum videos and animations that are appropriate to the material. So we can see the movement of the atoms. In addition, with the existence of chemistry learning gadgets, it can be more practical to use because you can carry it anywhere.

Each student's learning motivation is different, especially during the current pandemic. Learning motivation is an important point that must exist in the learning process and plays an important role in stimulating enthusiasm for learning (Kusuma & Subkhan, 2015). Motivation can also mean a process from within that can run, encourage, change, or even strengthen one's personality from time to time. This changing situation forced them to learn without being accompanied by a teacher directly. There are several important elements contained in motivation, including dreams, ambitions, goals, and compensation for the results that have been achieved (Ahmad, 2016). The use of gadgets at school should be utilized in the learning process to add insight and knowledge to students, but in fact there are still many high school schools that use gadgets only to play social media and chat. This is in accordance with the results of research conducted by the research and development center for policy and cultural research regarding "student learning concentration and the use of devices" where gadgets are widely used only as a means of communication and recreation. While the use of devices (gadgets) to find additional information that is not available at school is relatively small.

Therefore, based on the background of this problem, the researcher is interested in studying in more depth as a study with the title "The Impact of Gadget Use on Student Learning Motivation in High School Chemistry Lessons".

2. Research Method

This research is a type of research that uses qualitative description research as a research procedure that produces descriptions in the form of written and spoken words of people and behavior that can be observed directly and describes in a narrative manner based on data from the results of research objectively from the results interview, observation, and documentation.

The research object is several high schools in Padangsidempuan. The research focus is: the impact of using gadgets on student learning motivation. Sources of data in research are subjects from which data can be obtained. In this study the authors used two data sources, namely primary and secondary data sources. The research instruments are observation guidelines, interviews and documentation. The data collection technique is in the form of field research. The data analysis technique used in this research is qualitative data analysis.

3. Result and Discussion

The use of gadgets is nothing new among students. Gadget is an electronic device or instrument that has a practical purpose and function to help human work. Gadgets are not only used as communication tools, but also used to fill spare time, such as using the internet, playing games, listening to music/radio. However, it is not uncommon for the use of gadgets to have negative impacts, such as storing pornographic photos/videos, forgetting study time, and even changing exam answers.

A gadget is a mechanical or electronic device with a practical use but is often recognized as novelty. Apart from that, nowadays gadgets are more of a media (tool) that is used as a modern communication tool. In the world of education, the use of gadgets for learning is very important, this is due to the rapid development of information and communication technology, which requires every educational institution to optimize the use of gadgets in learning. The use of gadgets in every educational institution aims to facilitate work at school so that learning at school becomes more effective and efficient.

Based on the results of interviews on the use of gadgets in several high schools in Padangsidempuan, there are some students who often play gadgets instead of studying. They don't only use gadgets for entertainment, but they also use school assignments, almost all students have gadgets. Students who have gadgets always bring these items to school. Not infrequently they use gadgets during class hours. The use of gadgets for counting, the internet, even for texting, games and opening networks such as Facebook or Twitter, even when the learning process is in progress, most students use their gadgets to play online games clandestinely.

Based on the results of interviews with several high school chemistry teachers in Padangsidempuan about how gadgets are used among high school students, especially in chemistry lessons, it is stated that:

- The use of gadgets especially in chemistry lessons is used to facilitate learning. Its use is usually used to view practicum videos and animations.
- If in class gadgets or cellphones are used to access learning materials, during learning, access to anything other than lessons is prohibited. So, if I'm found to have opened something else, I will of course warn you. Outside the classroom there are no rules

- The use of gadgets among high school students has limits at school when using these gadgets, students can only use gadgets during breaks but there are also students when in class during lessons there are still those who use gadgets in secret.
- The use of gadgets is actually restricted or prohibited from being used in class but back to the teacher there are several internet connections that are searched on the internet usually allowed but in general it is prohibited in class to conclude that the use of gadgets at school has rules for its use but there are teachers who give permission to their students for certain things.
- Along with the development of the world of modern technology or commonly referred to as generation 4.0. The researcher concludes that the use of gadgets among high school students is in line with the development of technology, students are usually called the golden generation with the existence of modern technology to achieve quality education.

The impact caused by the use of gadgets is increasingly diverse, ranging from health to social aspects. Continuous use of gadgets does not only have a positive impact on students, but also has a negative impact. The positive impact of using gadgets is that students are able to get information and communication easily. However, the use of gadgets during class hours can interfere with student learning concentration, so that it can affect student learning behavior. Some students also stated that the use of gadgets causes waste. Using the internet and communicating via gadgets definitely costs money. Students often open the internet and communicate for things that are less useful which can interfere with the learning process.

According to the results of interviews at several high schools in Padangsidempuan, what are the positive and negative impacts of gadgets on the learning behavior of high school students, especially in chemistry learning?

- The positive impact of using gadgets especially in chemistry lessons as a tool in learning. We can use features such as learning videos, animations, and virtual practicums. In addition, this gadget is also useful in the ease of learning. So learning will continue if learning cannot be face to face. So that learning will switch to online. Then several features such as zoom and Google meet can be used. And the negative impact of using this gadget is that it makes students lazy and they cannot manage their time to study.
- The positive impact of using gadgets at school can be used as a tool in learning media while the negative impact of gadgets is that students pay less attention to ongoing lessons and are more concerned with playing gadgets.
- In general, the use of gadgets has more negatives than positives, the first: there is no focus on learning, attention always returns to gadgets because it is too easy to get information, and information that is easy to get is also easily lost. Moreover, the current system, students' minds always say that Google can provide answers. So, reducing the motivation

to find out knowledge, and the positive impact on English subjects for the dictionary application to make it easier to find vocabulary.

- The positive impact of gadgets facilitates communication, increases knowledge, but usually students also misuse gadgets by playing online games only and do not pay attention to learning in class. Concluding that the positive impact of gadgets in schools only facilitates long-distance communication and only adds knowledge, however, students sometimes misuse these gadgets in the classroom.
- The use of gadgets in the learning process makes student learning productivity increase because if we want to see the development of today's children, the most productive thing is to optimize the use of gadgets in learning at school. The productivity of learning can be seen from what is conceptualized by the school, students have run it, done their assignments, and the projects are going well.

From the data above it can be concluded that gadgets are very helpful in the learning process both in class and outside the classroom. As stated above, during the pandemic, gadgets really helped students and teachers to be able to carry out the distance learning process. And for now, where learning is offline, gadgets still help the learning process where attendance, all teaching materials and assignments are in e-learning and you have to use gadgets to access them. The use of gadgets in the learning process makes students more relaxed because almost every day students use gadgets for various things, using gadgets in learning at least makes them more relaxed because they are used to using gadgets every day.

4. Conclusion

Based on the results and discussion obtained, the conclusions obtained from the results of this study are: the use of gadgets among high school students, especially in chemistry lessons, is used as a communication aid in increasing student learning motivation such as the use of practicum videos and animations. But there are some students who often play games rather than study. As for the positive impact of using gadgets, students are able to get information and communication easily while the negative impacts of using gadgets during class hours can interfere with student learning concentration so that it can affect student learning behavior. Most students often open the internet and communicate for less useful things that can interfere with the learning process. So that it makes students' learning motivation decrease.

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