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An Analysis of the Use of Gadget on Students' Learning Outcome (Case Study)

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ABSTRAK
Penggunaan gadget oleh siswa kebanyakan digunakan untuk bermain game, sosial media, mengedit video, menonton youtube. Penelitian ini bertujuan untuk mengetahui Penggunaan gadget, dampak dan hasil belajar Siswa Sekolah Dasar. Jenis penelitian ini adalah penelitian kualitatif dengan subjek penelitian yaitu siswa kelas V SD. Data yang diperoleh menggunakan Observasi, angket, wawancara, dokumentasi. Hasil penelitian yaitu penggunaan gadget 8 siswa lebih dari 2 jam karena memiliki gadget pribadi, 2 siswa ragu-ragu dan 8 siswa mengaku dibawah 2 jam perhari yang kebanyakan digunakan untuk bermain tapi terkadang digunakan untuk belajar. Gadget memiliki dampak positif dan negatif, dan dari hasil nilai belajar siswa kelas V SD selama tengah semester dapat dilihat dari delapan belas siswa yang pengguna gadget termasuk dalam kategori cukup baik karena banyak siswa yang nilai rata-rata diatas KKM yaitu 70 dengan nilai 71-86 dan hanya tiga siswa yang mendapat nilai tiga siswa yang mendapat niai dibawah kkm yaitu 68-69. Hasil penelitian menunjukkan data nilai siswa pengguna gadget milik pribadi sekitar sebelas siswa terdapat dua anak yang nilainya dibawah kkm yaitu 68 dan 69, enam anak mendapat nilai 71-79, dan tiga anak mendapat nilai 82-86, data siswa yang pengguna gadget milik orangtua sekitar tujuh siswa mendapat nilai 68 satu siswa dan enam siswa mendapat nilai antara 71-79. Berdasarkan hasil penelitian, dapat disimpulkan bahwa penggunaan gadget oleh siswa laki-laki lebih cenderung sering bermain game, sedangkan siswi perempuan cenderung lebih sering bermain sosial media dan mengedit video.

ABSTRACT
Most of the students use gadgets for playing games, social media, editing videos, watching YouTube. This study aims to determine the use of gadgets, the impact, and the learning outcomes of elementary school students. This type of research is qualitative research with research subjects namely fifth-grade students. The data obtained using observation, questionnaires, interviews, documentation. The results showed that 8 students used gadgets for more than 2 hours because they had personal gadgets, 2 students were hesitant and 8 students admitted that it was less than 2 hours per day which was mostly used for playing but sometimes used for studying. Gadgets have both positive and negative impacts, and from the results of the learning scores of the fifth-grade students during the middle of the semester, it can be seen from the eighteen students whose gadget users are in the quite good category because many students have an average score above Kkm, which is 70 with a value of 71. -86 and only three students who scored three students who got a grade below Kkm were 68-69. The results showed that the data on students' scores using personal gadgets were around eleven students, there were two children whose scores were below KM, namely 68 and 69, six children scored 71-79, and three children scored 82-86, the data of students who used gadgets owned by their parents around seven students scored 68 one student and six students scored between 71-79. Based on the results of the study, it can be concluded that male students' use of gadgets is more likely to play games, while female students tend to play social media more often and edit videos.

1. Introduction

Education is an important thing, but many people underestimate education by not continuing to a higher level. Education is a goal to find work and hones our abilities and skills in dealing with and solving problems correctly. (Aprilia, 2018; Kurniasari, 2017; Suparlan, 2017) Stated that education is an environmental influence on individuals to produce permanent changes in their behavior, habits, thoughts, and attitudes.

Education also makes technology develop rapidly, one of which is a gadget. Gadgets that are once used to communicate are increasingly developing into multifunctional tools that all groups can even use. (Mufaro'ah et al., 2019; Primayana & Dewi, 2020) stated that a smartphone (gadget) is an electronic

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device with a small size that has a particular function. Smartphones (gadgets) can be interpreted as media that function as a modern and practical communication tool and easy internet access.

Observation result of interviewed with class V teacher at SDN 2 Pringtulis that all students already had a WhatsApp group and gadget with the responsible teacher, if students had difficulty or did not understand the material that had been delivered, students could ask questions through the WhatsApp group. The teacher does not allow students to bring the gadget to school but allowing them to use it at home as a medium for learning activities. For example, browsing the internet about the subject matter, because according to him, Kurtilas or the 2013 curriculum is difficult because they have to find their material, especially teacher as an educator, can design effective teaching and learning activities.

(Laily et al., 2019; Setyaningsih et al., 2020; Sudiran, 2015) Stated that learning is a process characterized by changes in a person. Change resulting from the learning process can be shown in various forms, such as changing knowledge, understanding, attitudes, behaviors, skills, abilities, reaction power, acceptance, and other aspects that exist in individuals. Learning is the process of seeing, observing, and understanding something. When we talk about studying, wer are talking about how to change someone's behavior. Learning is defined as a business process carried out by a person to obtain a whole new change in behavior due to his own experiences in interaction with his environment. In other words, it can be said that learning is a process resulting from interaction with the environment. Then children get experience from this interaction and remember it, it can be concluded that learning is a process of change in humans, and the form of change can be seen from the increase in the quality and quantity of behavior, such as increased knowledge, understanding of skills, attitudes, habits, skills, thinking power, and other aspects of ability that can be said as learning outcomes.

Learning outcomes show indicators of students' competency attainment. Teachers assume that with high learning outcomes, the learning objectives have been achieved. Still, learning outcomes in high academic scores only reflect the cognitive side. Even though in the learning process, many things must be achieved besides the cognitive side, namely affective and psychomotor (Armadi & Astuti, 2018; Darmawan, 2020; Setyaningsih et al., 2020). Students' learning outcomes are influenced by two main factors: factors from within the students and factors from outside the student or factors from the environment. The students' ability factor has a significant influence on the learning outcomes achieved. Learning outcomes are in the form of verbal information, intellectual skills, cognitive strategies, motor skills, and attitudes (Dewiyanti, 2018; Saraswati et al., 2013; Sutarno & Mukhidin, 2013). Learning outcomes are measured to determine the achievement of educational goals so that learning outcomes can be following the previsions. Learning outcomes can be seen from several aspects such as intellectual skills, cognitive strategies, motor skills, and attitudes. From some of these aspects is a measure of the achievement of educational goals to determine learning outcomes.

(Nikmatillah, 2018; Nurhazannah, 2017; Sari et al., 2019) stated that learning outcomes are the abilities that students have after learning an experience. It can be interpreted that the experience of students' learning skills is obtained from learning outcomes both at school and in the surrounding environment. Conclusively, learning outcomes result from a long and repeated recognition process obtained from school and the environment to have verbal information skills, intellectual skiils, cognitive strategies, motor skills, and attitude. One solution that can be given is to take advantage of gadgets for elementary school students' learning outcomes.

Gadgets are a set of electronic devices that are overgrowing in the globalization era. It also has special functions such as smartphones, cameras, and laptops created to facilitate communication. Gadgets are proliferating to be used in various ways with exciting features (Mufaro'ah et al., 2019; Primayana & Dewi, 2020). The gadget is increasingly making human communication activities easier, and now communication activities have developed more and more with the emergence of the gadget. Currently, many gadget factories make children and young people their target market by highlighting attractive features. Children nowadays also become active consumers of gadget users. Conclusively, a gadget is a modern small device with a particular function that can be used for daily life. The utilization of a gadget includes searching for information, communication, earning income by selling online, playing games, and many more. The teacher can use the gadget in the teaching and learning process to motivate students' enthusiasm for learning, thereby increasing student learning outcomes.

This research supported by several previous studies that were relevant to this research, such as (1) research conducted by (Pebriana, 2018), which showed that the use of gadget affected children's social interaction, most children use them for playing, so that their interaction with society were reduced; (2) research conducted by (Dewanti et al., 2016), showed that social skills and the use of smartphone gadget had a positive effect on learning achievement; (3) research conducted by (Puspa et al., 2018), showed that the use of gadget affected decreasing the quality of students vision.

Tujuan dilaksanakan penelitian ini adalah untuk menganalisis penggunaan gadget terhadap hasil belajar siswa sekolah dasar kelas V SD Negeri 2 Pringtulis Mayong. This research aimed to analyze the use of gadgets on the learning outcomes of fifth-grade elementary school students of SD Negeri 2 Pringtulis Mayong.

2. Method

This research used a qualitative approach which was a case study. Because the case study provides a factual description and suitable for naturalistic evaluation (research), It also contained the definition of a snapshot of reality (Hariyani & Sudrajat, 2017; Solikin, 2018; Wungguli & Yahya, 2020). In this research, the researcher still needed to know more about using the gadget in elementary school students to find what was caused to students' learning outcomes in elementary schools.

This research was conducted at SD Negeri 2 Pringtulis Mayong, and the researcher chose this location because many elementary school students already knew and had gadgets. Another thing that could be seen as the area was in a strategic place near the main road so that most students were familiar with, not only knew but also used it in their daily life.

In this study, the data collection technique used purposive sampling, which someone who is taken as the sample because the researcher thinks that someone had the information needed for the research (Maufur & Lisnawati, 2017; Novitasari, 2016; Nuraini & Saputro, 2017). Of all the fifth grade students of SD Negeri 2 Pringtulis, 18 students were taken because those students were gadgets users and became sources of data in this study.

The data collection method used were questionnaires, interviews, and documentation. First, this research used questionnaires in the form of questions that the respondent must answers. This study used a measurement scale, namely the Likert scale. It is used to measure the attitudes, opinions, and perceptions of a person or group of people about social phenomena. sosial (Londa et al., 2018; Pratama et al., 2020; Sundari, 2019). Second, this study used unstructured interviews to find open answers. The interviewee was asked for opinions and ideas in questions, use interview guidelines in the form of questions to be asked to fifth-grade students of SD Negeri 2 Pringtulis and their parents. Third, the documentation method was used to collect a picture and gather the data on students learning outcomes in the form of odd semester middle test scores.

The data obtained from questionnaires, interviews, and documentation the analyzed using data analysis techniques, namely qualitative descriptive statistics, to analyze the use of gadgets on the learning outcomes of fifth-grade elementary school students of SD Negeri 2 Pringtulis Mayong.

3. Result and Discussion

The researcher conducted the study from 9 to 18 November 2020. The research was conducted using questionnaires as supporting instruments for 18 students and unstructured interviews for 6 parents of students who were considered to have represented the research. The result of the questionnaires on the use of gadgets can be seen in Figure 1.

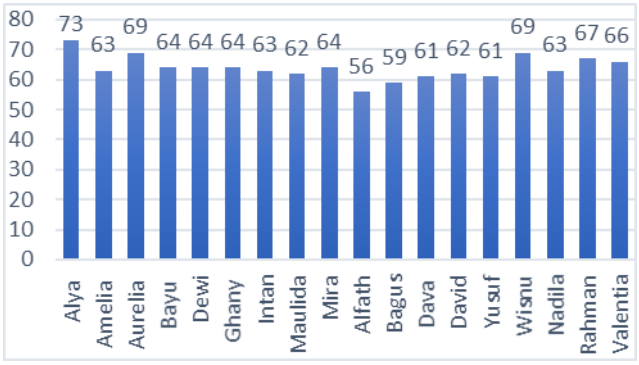

Figure 1. Questionnaires Result of Students Using Gadgets

Student's profiles of gadget users, based on the study results, showed that fifth-grade students at SD Negeri 2 Pringtulis Mayong, Jepara often used gadgets after school. Whether it was their gadgets or their parents' gadgets, they used it to communicate with friends, social media such as playing Instagram, TikTok, playing online/offline games at home. They sometimes even gather to play games together after

school or the day after evening prayer at a wifi stall. Although most of them were playing games, sometimes they used it to find information in learning activities, especially during the current pandemic. Students need gadgets as a medium of communication and information from the teacher via Whatsapps group. Their parents allowed it because students already knew and liked to play with devices on the pretext that children already like being told to stop sometimes they got angry. So, they left it as long as it was within reasonable limits and under parental supervision. Some parents let their children play with gadgets until late at night because their children were unruly.

Students knew, and gadget users were from all walks of life who did not know the types of parents' occupation. Whether farmers, self-employed and civil servants, farmers, tile craftsmen, factory employees, convection, and midwives. Most parents facilitated quotas during the corona pandemic to get learning information from the teacher. Before the pandemic, students rarely bought quota even though some were paid by their parents and facilitated with wifi.

Students learning outcomes based on research conducted at SDN 2 Pringtulis obtained data from grade V scores during odd semester midterm tests. The result questionnaires on the use of parents' gadget or private gadgets can be seen in Figure 2 and Figure 3

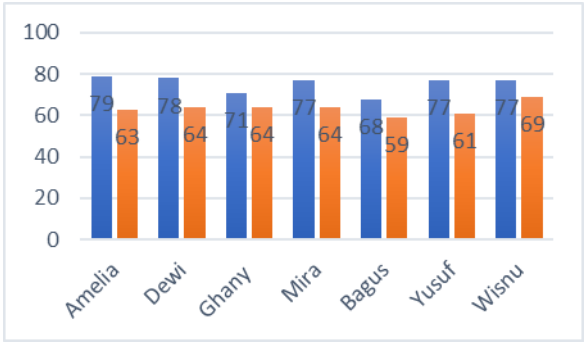

Figure 2. Learning Outcomes and Questionnaire Using Parents' Gadget

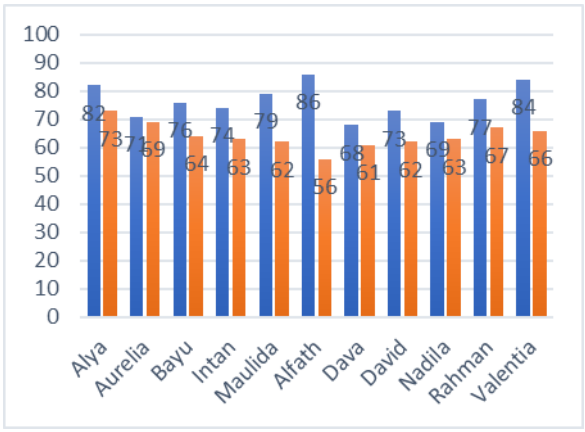

Figure 3. Learning Outcomes and Questionnaire Using Own GadgetISCUSSION

Grade V students of SDN Pringtulis 2 about the use of gadgets, based on interviews with 30% or 6 parents. It showed that most students recognize gadgets grade I to III. On average, the use of gadgets was more than 2 hours per day, and 44% or about eight students slept at night more than 10 pm on the grounds of playing gadgets, and the reason was unknown. The use of gadgets was used to play games, tiktok, youtube, communication with teacher or friends about the assignment, and even students who had bought goods online via e-commerce shopee. Parents allowed them to use gadgets because their children's friend already had gadgets to compensate for their children's friends; they allowed their children to use gadgets. The male students in class V commonly used gadgets for playing mobile games such as Mobile Legends, Free Fire, and watching Youtube. Yet, female students commonly used gadgets for media such as Instagram, Youtube, Tiktok, and edition videos that they learned from Youtube.

Many parents allowed their children to use gadgets. When asked, they did not know much about the impact of using gadgets. All they knew was that the important thing was that their children are silent and not fussy. When asked about the effects of using gadgets, many were confused to answers, and most of

them only answered to study in terms of positives and eye pain or minimum for the negative impact. However, some parents understood about the use of gadgets. They were "parents of students" to limit and supervise the use of gadgets so that they were not affected by hoax news, pornographic content and led children's social interaction in social media. Even though gadgets had a myriad of benefits, excessive use of gadgets can make children addicted. Based on the interview with the parents, many children were angry when asked not to play with gadgets, and some even cried if they were not allowed to play with gadgets

The indicator explained the result of the questionnaire on the use of gadgets for gadget use. The researcher can conclude that, on average, SDN Pringtulis 2 students had the desire to have their gadgets but were constrained by parents who had not allowed them because it was not the right time to buy them and constrained by their parents' finances. The result of interviews with 60% or eleven out of eighteen students admitted that they already had gadgets, which meant that most students have their own gadgets in class V.

The students of SDN Pringtulis 2 only used gadgets when they felt bored at home, and some students were waiting for their parents to return home from work because they did not have gadgets. From the result of the questionnaires and interviews, 8 students used gadgets for more than two hours a day, 2 children were hesitant because sometimes they used them for more than 2 hours and less than 2 hours, and the rest students used gadgets less than 2 hours.

The use of gadgets by students was rarely used to access the internet or for learning activities. Yet, if there was an assignment from the teacher, SDN 2 Pringtulis students studied together. The use of gadgets was widely used for playing games, Youtube, social media, editing videos, and some were already able to use gadgets for online shopping.

The communication from the result of questionnaires and interviews with fifth-grade students of SDN 2 Pringtulis. It showed that most students preferred to meet face-to-face with their peers rather than playing gadgets but students also easily made friends from social media and the game they play. When at home, there were no friends who invited them to play; students usually played with gadgets and watch TV. In class V, some male students liked to say harshly on Whatsapp to their peers, even according to parents, it was not uncommon for parents to open and read Whatsapp chat. Children sometimes saw stickers with indecent images sent by their friends to their children.

Knowledge of using gadgets was sometimes used by students to learn, which was usually when the teacher gave assignments through the Whatsapp group for class V. Students usually communicate via Whatsapp to invite friends to study together. If they did not understand the assignment given, students learn via Google and Youtube with their friends. According to students, gadgets sometimes provided negative information such as hoax news and negative content. According to researchers, the use of gadgets that were not well filtered and the proliferation of hoax news can easily influence students, get carried away with emotions, and affect their social because of poorly filtered social media content and information.

Health, excessive use of gadgets can make students became accustomed and addicted. It also caused eye irritation, hearing loss and affects the cognitive and mental development of students. There was a case at SDN 2 Pringtulis. When the local hospital held activities, after checking, it turned out that 14 students had visual impairments, and some had eye pain due to frequent playing on gadgets and watching TV dominated by male students. From the result of the questionnaire, 5 children experienced the desire to use gadgets, 11 students were hesitant if they had the urge to use. Still, there were limiting factors, and 2 students disagreed. Most students brought gadgets when playing and felt happy when carrying gadgets, 6 students felt anxiety which the owner of the gadget personally indicated. 83% of students felt sore quickly when using gadgets, and many students had difficulty sleeping to sleep more than 10 pm for various reasons from overuse gadgets.

Social, from the result of the questionnaire 3 students preferred playing gadgets than playing with friends because gadgets were not bad if friends were sometimes ignorant so they preferred to used gadgets rather than playing with friends. But some students also often played gadgets with friends to capture moments or played games. Students also frequently communicate with friends via gadgets when they rarely meet and imitate what they saw on social media.

According to (Dewanti et al., 2016; Pebriana, 2018; Puspa et al., 2018), internet gadgets among teenagers are very concerning because it harms growth and development. Children adapted more quickly to existing technology and were often complacent about the sophistication of the gadgets available in their features. However, excessive use of gadgets can affect students' emotions, making them more aggressive when gadget use was restricted, individualistic, lazy to learn, and influenced or imitated information and content seen on gadgets.

The impact of using gadgets for students at SDN 2 Pringtulis had many benefits such as making communication easier, making friends easier, it can be used for learning, online transactions, and there were still many benefits from using gadgets. Yet, behind goodness, there must be badness or negative impact of using gadgets. For example, it could irritate the eyes because they were too focused on looking at the gadget screen, which made their eyes dry, reducing the hormone melatonin. It makes the eyes awake and had sleep trouble, interferes with hearing, introverts. Excessive use of gadgets made a person limited indirect interaction and communication with other people; if accustomed to it, it could not be denied that it would affect students' social life. It can affect the PFC or preferential cortex, namely the ability to analyze and the limbic system.

Based on the result of research on fifth-grade students, both from observation and interviews with students and parents regarding the negative and positive impacts of using gadgets. Positive effects included training creativity, eliminating boredom, learning activities, improving reading skills. As for the negative impact, such as students became lazy, eye irritation, hoax news, provocation, porn sites, promiscuity in cyberspace, irritability, and even cry if they were not allowed to use gadgets. Following the opinion, technology addiction can then affect children's brain development. PFC or Pre-Frontal Cortex was the brain that controlled emotion, self-control, responsibility, decision making, and other moral values. Children addicted to technology such as online games had their brains overproducing the hormone dopamine, resulting in impaired PFC function.

Exessive use of gadgets can make children mostly dopamine and focus on one thing so that students were less active. If left unchecked, it could affect the limbic system and the forebrain's shrinkage, which controlled emotion, communication, and analysis so that students have difficulty distinguishing what was right and wrong. Therefore, parents must be strict and radical about the use of gadgets. Parents must limit gadgets by directing positive activities such as studying, gathering, and playing with family or friends, introducing features that need to be used in using gadgets. If they were not given directions or controlled, they will exceed the limit by consuming content/features that were not supposed to be known and various other impacts using gadgets.

The learning outcomes of students using gadgets from the result of fifth-grade students in SDN 2 Pringtulis during the middle of the semester could be seen from the eighteen students whose gadget users were categorized as quite good because many students have an average score above KKM of 70, with a value of 71-86. Only three students got below KKM of 68-69. From the students' scores data using privately owned gadgets, there were about eleven students; two students got to score 68 and 69 below the KKM, five children got 71-79, and three children got score 82-86. The data on students who used gadgets owned by their parents, about seven students, one student got to score 68, and the rest got to score 71-79.

The description above concluded that students who used gadgets that were privately owned had higher scores than students who used gadgets owned by their parents. Indeed, there were more values below KKM for private users, which were two students. Although there were more who below KKM and more had score above 82-86, users belonging to their parents only scored 79. Many other factors affect students learning outcomes, like environmental factors such as teachers, friends, teacher's teaching methods, the corona pandemic, and internal factors such as learning motivation.

Gadgets are a set of electronic devices that are proliferating in the globalization era and have a special function such as smartphones, cameras, and laptops that are created to facilitate communication, are overgrowing so that they can be used in various ways with exciting features (Mufaro'ah et al., 2019; Primayana & Dewi, 2020). Gadgets increasingly made human communication activities easier; now, communication had developed more and more with gadgets' emergence. There are currently many gadget factories that focus on children and young people as their target market by highlighting attractive geatures and now children have become active consumers of gadget users. It could be concluded that a gadget was a modern small device and had a particular function which could be used for daily life. This utilization included searching for information, communication, earning income by selling online, playing games, etc. Teachers could use gadgets in the teaching and learning process to motivate students' enthusiasm in learning, thereby increasing students learning outcomes.

This research was supported by several relevant studies such as (1) research conducted by (Pebriana, 2018), which showed that the use of gadgets affects children's social interactions; most children used them to play a game so that their social interactions were reduced; (2) another research by (Dewanti et al., 2016), showed that the social skills and the use of smartphones had a positive effect on learning achievement; (3) additional research conducted by (Puspa et al., 2018), who obtained that the use of gadgets affected decreasing the students' vision quality.

This research was conducted to analyze the use of gadgets to improve fifth-grade students' learning outcomes at SDN 2 Pringtulis in Mayong District, Jepara Regency. This research implied that

gadgets could motivate students to be more enthusiastic about learning and make it easier for them to communicate

4. Conclusion

Based on the result and discussion above, this study could be concluded that gadgets could improve the learning outcomes of fifth-grade students at SDN 2 Pringtulis in Mayong District, Jepara Regency. This research implied that gadgets could motivate students to be more enthusiastic about learning and make it easier for them to communicate.

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