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# The Academic Performance of Students in Class XI at SMA Negeri 1 Suak Tapeh, Suak Tapeh District, Banyuasin Regency: The Impact of Smartphone Use

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**Abstract**. This research discusses the impact of smartphone use on the academic performance of 11th-grade students at SMAN 1 Suak Tapeh. The development of technology, especially the use of smartphones, has a significant impact on people's lives, including in the field of education. The use of smartphones can have both positive and negative effects on students' academic performance. The research adopts a qualitative approach with a descriptive method. Primary data were collected through interviews, observations, and documentation, while secondary data were obtained from relevant documents or archives. The findings reveal that smartphones have positive effects, such as facilitating access to learning materials, enhancing creativity, and broadening knowledge. However, uncontrolled smartphone use can lead to negative effects, such as addiction, sleep disturbances, decreased concentration, and diminished quality of social interactions. This study is expected to provide insights into the benefits and risks of smartphone use in supporting students' learning processes and offer recommendations for schools in designing policies related to smartphone use among students.

Keywords: Academic Performance, Education, Positive and Negative Impacts, Smartphone, Students.

#### 1. BACKGROUND

The development of technology today is progressing very rapidly and widely, as is the case with smartphones, where almost everyone owns one nowadays. Smartphones have now become inclusive items owned by many people. However, unlike televisions or other electronic devices, smartphones have undergone significant development over time. Smartphones, or more commonly known as smartphones, have become tools not just for communication, but also for banking, commerce, education, and several other purposes.

Smartphone technology has been advancing over time. Smartphones are currently used by all segments of society, including entrepreneurs, educators, those with high incomes, those with low incomes, the general public, and nowadays, many students are using advanced smartphones. We must be able to keep up with the rapid advancements in technology because it is essential in today's world. Unquestionably, modern technology benefits people when used properly; when misused, however, it will have the opposite effect. According to Avis (2014), technological advancement brings significant changes to humanity, including influencing cultural values, especially in Indonesia which is deeply rooted in Eastern culture. The impact of technology is evident in both urban and rural communities, where information, both positive

and negative, is easily accessible. This change has a significant impact on the transformation of values in society, especially in societies with Eastern cultures like Indonesia.

Currently, in Indonesia, we can see the significant influence of technological advancements on the cultural values embraced by society, both urban and rural communities. The advancement of smartphone and internet technology has not only impacted urban communities but can also be enjoyed by rural communities. As a result, all information, whether positive or negative, can be easily accessed by the public. A smartphone is a device for voice communication or for voice communication, commonly referred to as a mobile phone. In addition to being able to receive calls or SMS like a regular mobile phone, smartphones are also equipped with web browsing capabilities and can receive emails.

The presence of smartphones amidst the rapid globalization of communication and information technology has a unique phenomenon for the education sector, especially for students. Its presence, which offers sophistication to access all information across the world quickly, easily, and cheaply, can be used as one form of learning pattern to improve performance with various available features such as internet access networks that provide various types of information needed by its users.

Smartphones have become a technology that is rapidly evolving, serving as an advanced and limitless communication medium. The provision of smartphones by parents to their children as a means of communication makes it easier for parents to communicate with their children when they are at school. Additionally, it facilitates children's access to learning materials, thereby improving their academic performance at school, and also ensures that children are not technologically illiterate. Smartphones are cell phones that are helpful for sharing news, communicating, and obtaining information with friends and family. When used properly, smartphones can offer the most recent information in addition to serving as a communication tool.

The telephone was first invented by Alexander Graham Bell in 1876 as a useful tool for communication, and it quickly advanced. In the meantime, Motorola employee Martin Cooper invented the mobile phone. Cooper had an idea for a portable communication gadget that would be easy to carry anywhere. Meanwhile in 1992, IBM created the first smartphone, which they unveiled as a concept at the COMDEX computer show in Las Vegas under the name Simon. BellSouth began marketing this phone in 1993. Simon was more than just a cell phone; it had a calendar, address book, world clock, notepad, email, fax, games, and more. This phone has no physical buttons; instead, it uses a touchscreen to compose memos with a pen or enter phone numbers. An on-screen predictive keyboard allows users to input text. Despite their simplicity

in comparison to modern standards, Simon's features were very inventive for their day. Smartphones are mobile phones that offer a variety of community services, according to Noor in Enggaris (2023). Users are able to add programs as needed, so its capabilities extend beyond only making phone calls and sending SMS. To put it another way, a smartphone is a little computer with phone functionality.

In Indonesian society, smartphones have become an indispensable aspect of daily life. Smartphones are mostly useful as a communication tool for maintaining relationships with friends and family. Additionally, smartphones make it simple to learn about new breakthroughs in technology while also growing one's professional or social network. Smartphones are a common source of amusement because of their features, which include social media access, games, and cameras. According to statistics from ConsumerLab Ericsson, smartphones serve a number of other purposes that enhance users' everyday activities in addition to serving as a communication tool.

Students utilize smartphones as their learning tools when they are learning online. The benefits of online learning include a more expansive and engaging learning environment and the ability to implement learning at any time and from any location, contingent on the agreement between students and instructors. Other issues with online learning include challenging signaling, no internet quota or abruptly running out of quota while learning is underway, some students not understanding the topic or paying attention to lecturers, and so forth.

In addition Smartphones are beneficial since they may be used for online learning, searching the internet for information we don't understand, and other purposes. However, there are drawbacks to cellphones as well, particularly for students who become dependent on them, cheat on their assignments, lose attention when learning, etc. Not only having the positive impact, it also brings about negative effects that are no less significant than the positive ones. As smartphones have developed, they have had an impact on students, both positive and negative. Some use smartphones to improve their school grades, studying with what is available on the smartphone. However, on the other hand, there are also those who make students lazy and often waste time in front of their smartphones, leading to a lack of concentration in receiving lesson material because they are busy playing with their smartphones.

In the modern era today, it cannot be denied that there are increasingly more challenges in achieving educational goals. This can be seen from the majority of the current generation who have fallen into unhealthy lifestyles in terms of social interactions and lifestyle choices. People in the city or in the village, the rich or the poor, sometimes can no longer be

distinguished, and it seems there are no longer any barriers to stop them from doing whatever they want to do. This is caused by a moral crisis and the lack of empowerment of the mind, as well as a crisis in religious knowledge. This is very concerning, and of course, it greatly affects the learning process experienced by students both when they are at school and in their home or family environment. Likewise, the achievements attained by students are closely tied to their success in the learning process.

It cannot be denied that in the modern and digital era, smartphones are very much needed to support students' academic achievements, as this can enhance students' creativity in broadening their horizons and knowledge. However, behind the sophistication brought by smartphones, there is also a significant impact on the students themselves. In the world of education in Indonesia, smartphones began to be introduced more intensively when COVID-19 hit the world and Indonesia. When the Covid-19 virus, which originated in Wuhan, China, emerged at the end of 2019, the globe was in a frenzy. Thereafter extended to a number of nations, including Indonesia. In order to prevent the spread of COVID-19, the Indonesian government has instituted a social distancing policy since its inception. Many Indonesians' activities have been interrupted by COVID-19, particularly in the area of education, where students now study online or at home instead of in person. The government implemented a policy to close schools, but the teaching and learning process continued without disrupting students' achievements. Online learning using smartphones played a significant role when teachers and students engaged in distance learning.

As a communication tool, smartphones provide benefits for users to communicate over long distances, and these smartphones can also be used as entertainment for students. The proliferation of online games among students in Indonesia has become a very serious issue because it can affect students' academic performance. Because students are not ready to receive lessons, are not focused, and do not concentrate during the learning process, this can be caused by students being engrossed in playing with their phones while the teacher is explaining the lesson. Nursina in Hamid (2018) asserts that learning patterns have a significant impact on students' learning results. Prior to smartphones, the only ways for students to study were through classroom activities and library books. Students can now readily access study resources at any time through applications thanks to smartphones.

Smartphones have both positive and negative impacts on students. The positive impact is the ease of accessing learning materials. However, the negative impact arises when students misuse smartphones, which disrupts their concentration as they focus more on unproductive activities rather than classroom learning. In Farhana (2022), Gorys Kerap defines impact as the

powerful effect of an individual or group of individuals in carrying out their roles and responsibilities in accordance with their social standing, which will lead to both good and bad developments. Simply put, impact is influence or effect. Positive or negative effects are typically associated with every choice made by a superior. The effect may also be a continuation of the internal auditing process. It should be possible for a trustworthy leader to foresee the kind of impact or decision that will be taken and the consequences that will follow.

The use of smartphones among students will certainly have an impact. The impact will be both positive and negative. Especially on the students' academic achievement. As cited in Farhana (2022), Kerap stated that there are several positive impacts of using smartphones. Smartphones can become a communication medium. Smartphones can be used to contact family, relatives, or friends who are far away from us. That way, we don't have to go through the hassle of sending letters that would take a long time to reach their destination. It is also stated that smartphones can become a Medium of Information. With the internet, smartphones can access various things that can provide us with important or valuable information. That information can also enhance our knowledge.

Furthermore, smartphones can be used as a Learning Medium. Now, the tasks given to students are very numerous, especially at the junior high school and high school levels. Smartphones can help students complete those tasks with the help of the internet that is already available on the smartphone. So, students can easily learn through the internet by utilizing the smartphone. Smartphones as a Source of Entertainment. Inside the smartphone, there are various applications that are entertaining. When we are bored, we can use those applications just like listening to Mp3, playing games, and so on. Smartphones also can become the World of Work and Business. Smartphones can also be used to establish/work on business and professional relationships. Smartphones can be used as a medium for client relationships. In addition, it can also facilitate online buying and selling processes through smartphones. Lastly, it is stated that many smartphone application features now make it easier for us to learn to read the Qur'an, the Bible, and more. With that application, smartphone users can learn anytime and anywhere. It supports the religious aspect too.

Contrary to those positive impacts above, smartphones also have some negative impacts. According to Kerap in Farhana (2022), Smartphones can cause addiction. The ability to stay connected 24/7 for 7 days makes smartphone users always updated with any news, including chatting with friends. The pleasure that arises when receiving emails or messages on other social media applications will create a unique enjoyment. Using smartphones too much can also cause the risk of Radiation Exposure. According to several studies, using smartphones

too frequently will be prone to radiation exposure, especially in young children. The radiation from the screen is very harmful to the health of the developing nervous system. Smartphones also can disturb sleep. The "tring" sound from the smartphone indicating a new message will make us curious to peek at its content. This obsession can continue until the evening, the time to rest and recharge. Quite a few studies mention the negative effects of insufficient sleep. Starting from decreased work productivity, increased accident rates, to the body becoming more susceptible to diseases.

Additionally, the excessive use of smartphones also damages the brain. The negative impact of mobile phone radiation on health is indeed still controversial, but some studies show that mobile phone radiation can trigger brain tumors and insomnia. Staring at a smartphone too often also risks weakening the user's concentration, as they tend to do two things at once, making it difficult for someone to absorb information due to lack of focus. Smartphones also reduce reasoning ability. This is because students who frequently use smartphones will rely on their smartphones to perform various tasks related to reasoning, such as having conversations, searching for anything on Google, and so on. The impact is that the brain is not trained to get used to remembering something if it continuously relies on smartphones, thus reducing reasoning ability. Using a smartphone excessively can disrupt vision. The smartphone emits blue light that can affect vision disturbed. If the eyes keep staring at the smartphone screen for a long time, for example chatting or playing games. Over time, your eyesight will decrease to the point of making vision blurry.

The next negative impact of smartphones is causing hearing impairment. This can be caused by listening to music or watching videos while using headphones. Listening to music with headphones is indeed enjoyable, especially in a crowd or while riding a motorcycle to avoid boredom. But remember, listening to music on a smartphone with high volume using headphones can lead to hearing impairment. Another negative impact of excessive use of smartphones is the behavioural change. Technological advancements have the potential to make students quickly satisfied with the knowledge they acquire, leading them to believe that what they obtain from the internet or other technologies is captured and final knowledge. In fact, there are so many things that must be passed through in the traditional learning process, and the internet cannot replace the depth of knowledge. If not carefully considered, there will be a tendency for future generations to become a generation that is easily satisfied and tends to think superficially. The continuous use of smartphones can impact student's behavior, as the addictive nature of smartphones causes children to be influenced and imitate what they see.

The worst impact of improper smartphone use is reduced interaction. Students often make plans to meet friends through chatting on their smartphones. When meeting at the promised place, they usually enjoy chatting with friends, but instead, they get busy with their smartphones to update their Facebook status, reply to incoming messages, and the same goes for group work. As a result, interactions with friends decrease, and sometimes you even lose track of time because you're engrossed in playing games on your smartphone.

Those impacts piques the authors' curiosity on how smartphone use affects 11th-grade students' academic achievement at SMA Negeri 1 Suak Tapeh, Banyuasin Regency. Finding out how much of an impact smartphones have and if they are being used appropriately or improperly is the goal of this study. A number of distinguishable problems have been identified based on preliminary field observations. One of these is the pervasive usage of smartphones by SMA Negeri 1 Suak Tapeh 11th graders, which has a detrimental effect on their academic achievement. Additionally, students' disinterest in learning has grown to be a serious problem, particularly in Suak Tapeh District of the Banyuasin Regency. The primary concern raised by this problem is to identify the impact of smartphone use on students' academic achievement at that particular school.

This research aims to determine the impact of smartphone usage on the academic performance of 11th-grade students at SMA Negeri 1 Suak Tapeh, while also identifying the factors that influence that performance. This research is expected to provide benefits both theoretically and practically. Theoretically, this research can enrich knowledge in the field of education and social welfare and serve as a reference for other researchers with similar themes. Practically, the results of this research can provide input for students and school authorities to understand the positive and negative impacts of smartphone usage, as well as help schools design strategies to mitigate the negative effects.

Due to the background above, the authors are motivated to conduct research on "the impact of smartphone usage on the academic performance of 11th-grade students at SMA Negeri 1 Suak Tapeh, Suak Tapeh District, Banyuasin Regency." Seeing the rapid development of communication technology, the researcher wants to examine the extent of the impact of smartphones on students, whether with increasingly sophisticated technology, students can utilize the existing technology well or the opposite. The presence of smartphones has both positive and negative effects on students. One of the positive impacts is that with the use of smartphones in learning, students will find it easier to access learning materials. However, on the other hand, it also has a negative impact on students because some students misuse smartphones, and one of the negative effects is that it disrupts students' concentration when

they are more busy with their smartphones doing useless things rather than paying attention to their teacher.

#### 2. RESEARCH METHODOLOGY

This research employs a qualitative methodology. Qualitative research is more analytically oriented and descriptive in character. To keep the research focused on the facts discovered in the field, this study uses theory as a guide (Bodgan and Taylor in Moleong, 2016:4). This research was conducted at SMA Negeri 1 Suak Tapeh, Suak Tapeh District, Banyuasin Regency.

The data types used in this study are separated into two groups: main data and secondary data. By conducting interviews, making observations, and documenting the responses, primary data is gathered straight from the initial source. Primary data is information gathered directly from the research object by the researcher in order to address predefined issues, according to Sugiyono (2015). Conversely, secondary data is information that already exists in the form of records or archives, such as demographic information that is accessible at pertinent organizations, and is used to supplement primary data (Miles & Huberman, 2014). This secondary data supports a more thorough comprehension of the subject under investigation.

There are various components to the data sources used in this study. First, the data sources include individuals who offer information about smartphone usage in schools, specifically students and teachers. Second, the environment in which students use smartphones is one of the data sources. This can give a general idea of the habits and behaviors of students in this situation. Third, the data sources consist of documentation, including pictures of pupils using smartphones, which will serve as visual proof of the observations made.

The data collection techniques in this study include observation, interviews, and documentation. And the triangulation techniques are applied in data analysis which aim to verify the credibility of the obtained data by comparing data from various sources and different techniques. According to Miles and Huberman (2014), triangulation is an effective way to ensure data validity by examining the consistency between observation results, interviews, and other data. Additionally, qualitative data analysis is conducted inductively, which means that researchers develop patterns of relationships or hypotheses based on the collected data (Sugiyono, 2015). This analysis process consists of three main stages: data reduction, data presentation, and conclusion drawing, which are carried out simultaneously and continuously until clear and reliable findings are produced.

#### 3. RESULTS AND DISCUSSION

Smartphones are one of the tangible forms of technological advancement in today's era. Of course, in the development of technology, this greatly influences human lifestyles both in terms of mindset and behavior. With the help of smartphones, human activities can be made easier and more time-efficient. Excessive and improper smartphone use addiction will make someone indifferent to their surroundings, both in the family environment and the surrounding community. Someone's indifference to their surroundings will cause them to be avoided and even alienated in their environment. Students' behavior in using smartphones has both positive and negative impacts.

The research result showed the positive impact of Smartphone use on the academic performance of 11th grade students at SMANegeri 1 Suak Tapeh. It is found that the use of smartphones makes it easier for students to maintain relationships with family, friends, and relatives, both within the country and abroad. Smartphones enable quick and efficient long-distance communication, thereby facilitating better social interactions. Additionally, as the information media, smartphones provide easy access for students to obtain various important information that expands their knowledge. Through the internet, students can access the latest news as well as lesson information that can support their learning process. Meanwhile, it is obtained that in the context of learning, smartphones help students access teaching materials and complete school assignments more flexibly. With an internet connection, students can search for learning references, attend online classes, and collaborate with friends to complete tasks assigned by teachers.

Smartphones provide entertainment that can alleviate boredom, such as playing music, gaming, or using apps like TikTok and Instagram. Some students feel that smartphones are very entertaining, although they realize the importance of not neglecting study time. Smartphones allow students to engage in the world of work and business, especially in the modern era where work can be done from home by utilizing the applications and features available on smartphones. Additionally, smartphones are also used for online business through e-commerce platforms like Shopee and Lazada, which provide convenience in transactions and managing work. Lastly, as found in the positive impact, Smartphones also provide benefits in the religious aspect. Various religious applications, such as Quran e-books and lecture apps, allow students to learn and deepen their understanding of religion anytime and anywhere. These features help students to more easily access religious information and maintain their faith in the digital era.

Contrary to the positive impact gained, the negative impact of smartphone use on the students' academic performance also appeared. It is found that the continuous use of smartphones can lead to addiction, especially if students cannot balance their time between studying and using smartphones. This can lower academic performance. Some ways to avoid addiction include engaging in other activities that do not involve smartphones, such as exercising, or wisely dividing time between studying and using smartphones. Moreover, excessive smartphone use can affect health, especially through radiation exposure. Radiation can damage the nervous system, particularly in children. To avoid it, it is recommended to reduce smartphone usage, not to use it while charging, and to use eye protection apps. It is also found that improper smartphone use, such as playing games or using social media until late at night, can disrupt sleep time. This leads to irregular sleep patterns, which can affect concentration and productivity at school. Students should limit smartphone use to avoid disrupting their sleep and study time.

From a health perspective, improper and excessive use of smartphones can lead to several health issues. Excessive smartphone use also poses a risk of damaging the brain, especially due to radiation and concentration disturbances. Frequent smartphone use can lead to a decrease in concentration and reasoning abilities, as students tend to rely on smartphones for various tasks, such as searching for information or communicating. This can reduce the brain's ability to think independently. Furthermore, using smartphones for long periods can disrupt vision. To avoid this, some students suggest reducing smartphone usage, using eye comfort mode, and adjusting to lower lighting. Listening to music with headphones at high volume can damage hearing. Many students are reminded not to use headphones at high volume and to reduce usage duration to maintain hearing function.

Overuse of smartphones can lead to laziness, a decrease in social connections with friends and parents, and a loss of time for critical tasks like studying and eating. Using smartphones excessively can lead to fewer social connections with loved ones. Students say that using their smartphones is frequently more interesting to them than communicating with others.

Smartphones, which were initially created to simplify life, have now become items that are hard to separate from their users, especially students. The presence of smartphones has both positive and negative impacts on students, particularly at SMA Negeri 1 Suak Tapeh, Suak Tapeh District, Banyuasin Regency. From the research results, smartphones can provide benefits such as delivering information and aiding the learning process. However, smartphone usage can also bring significant negative impacts, such as excessive habits in using social

media, playing games for too long, and reduced social interaction among students. These negative impacts must be anticipated by schools and families so that students use smartphones more wisely, especially for beneficial activities. Finally, it could be argued that students who use their smartphones excessively—such as staying up late to play games or engaging on social media—lose time for studying and sleep. Their focus on taking part in educational activities at school is thus disturbed.

### 4. CONCLUSION AND SUGGESTIONS

This research aims to identify the impact of smartphone usage on the academic performance development of 11th-grade students at SMA Negeri 1 Suak Tapeh, where students often spend time on their smartphones, negatively affecting their performance. Smartphones have both positive and negative impacts on their users. The positive impacts include: as a means of communication, information media, learning media, entertainment media, tools for the workplace and business, and it can also support religious aspects.

However, there are also negative impacts, such as smartphone addiction, risk of radiation exposure, sleep disturbances, brain damage, vision and hearing impairments, behavioral changes, and reduced social interaction. To anticipate these negative impacts, it is recommended to limit smartphone use, replace addictive applications with reading textbooks, and interact with friends to discuss school subjects. Parental supervision is also very important in ensuring that students use smartphones appropriately.

Based on the research findings, the researchers provide some recommendations. For students, it is suggested to reduce dependence on smartphones that can affect academic performance, students should limit the time spent on online games and social media that can disrupt the learning process. If not limited, excessive smartphone use can lower the quality of their academic performance. Students are also advised to be more prudent in using smartphones, such as utilizing the internet to broaden their knowledge or engaging in online group study sessions. For researchers, it is suggested that the researchers can conduct a more in-depth study on the impact of smartphone usage on the academic performance development of students at SMA Negeri 1 Suak Tapeh. For parents, it is suggested that the parents are expected to be more active in supervising their children's smartphone usage, so that the negative impact of smartphone use can be minimized and does not affect students' academic performance.

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