

Online Gaming Addiction: Effects on Students Learning and Academic Achievement

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Abstract

Parental support plays a crucial role in addressing addiction to online gaming among children. Therefore, education and clear awareness of the dangers of addiction to children in various aspects such as learning, health, thinking, and behavior need to be expanded or intensified by any agency or authority so that parents and society can open their eyes and be aware of controlling technology use for children. This concept paper aims to examine the effects of addiction to online gaming on student performance. Many studies have found that addiction can influence students' learning performance. The second objective of this concept paper is to examine appropriate steps in addressing addiction to online gaming. Further discussion on addiction to online gaming and steps to address it will be explored more deeply through this concept paper.

Keywords: Addiction, Online Gaming, Academic Achievement, Students.

Introduction

In line with the current advancements in the world, it cannot be denied that technological development is rapidly progressing, with many online gaming pioneers and social media platforms existing today in accordance with the current era of development. When we look into phone gaming, there are too many online games provided that can be accessed for free. This makes it easy for children or anyone to get caught up in online gaming, requiring only a strong internet connection and a sophisticated smartphone. Technology today has a significant influence on human life with the presence of television, radio, smartphones, gadgets, and iPads from various brands, ultimately quickly affecting society. Technology serves many functions and has significant influence in various fields, including entertainment, such as online gaming.

Nowadays, gadgets are easily accessible to anyone, including children. Everyone's interest in gadgets for various purposes begins with business, education, social media, entertainment, and gaming. Gaming can be considered a must-have feature in everyone's gadget application, whether it's online or offline. Offline games can be played anytime without needing an internet connection, while online games require internet access to play. Many people are more inclined to play online games compared to offline ones. This is because online games, which have the same concepts as offline games, offer more excitement in their online

versions. For example, online games offer more levels, accessories, more battles against opponents, and so on. The development of online games is currently very rapid, with game graphics, resolutions, and displays, gaming spaces, war games, and more. Games are becoming increasingly interesting and enjoyable, leading many teenagers to become involved and enthusiastic about them.

Addiction is an obsession with substances or behaviors that damage oneself, constituting chronic, compulsive dependence on behavior or substances. Addiction is a brain disease situation where there is an excessive desire and craving for stimulation, even though it will bring harm. The pleasure and satisfaction sought from initial stimulation eventually become something necessary to ensure the body functions normally (Wikipedia, 2021). Humans become addicted due to a lack of strength to overcome or resist their psychological dependence. With addiction, parts of the brain such as motivation control, feelings, rewards, and sensitivity are stimulated to provide pleasure. Some people are said to easily become addicted due to their unique brain chemistry, while many doctors discuss that anyone can become addicted. Factors such as the environment, including family beliefs and attitudes and exposure to peer groups encouraging smartphone use, also lead individuals to engage early in online gaming (Soh et al., 2014). This is because we can see the emergence of new jobs such as game development and the opening of "Gaming Rooms" for multiplayer gaming, causing young people to like and sometimes become addicted to gaming, causing them to forget about the time spent and thus not have sufficient rest, leading to health problems. For example, fatigue, stress, and even risk of death.

Learning achievement is the result of students' efforts through their learning processes. If students have good focus in learning, their learning achievements will increase, which will be determined through measurement and assessment at school. Achievement is the result of activities performed individually or collectively (Djamarah, 1994). The word achievement comes from the Dutch word "Prestasi," which means effort result. Achievement can be achieved by having intellectual, emotional, and spiritual abilities, as well as self-resilience in facing situations from all aspects of life. According to Gagne (1985), achievement is the result achieved by someone in carrying out activities and it is distinguished into five aspects: intellectual ability, cognitive strategies, verbal information, attitudes, and skills. Therefore, good achievement can be produced through focus and efforts made in something, including learning and work.

Moreover, addiction to online games is an issue that affects learning achievement and causes a decrease in learning motivation, and the health of students is also affected if they do not get enough sleep and their nutrition is not well-maintained. However, online games also have positive effects if used properly because they can reduce stress, relieve fatigue and boredom, and allow meeting new friends through the games. Furthermore, parental and teacher support and encouragement can help students avoid addiction to online games by providing attention, advice, and exposure to online games towards a positive direction. Openness and parenting styles are very important in the process of educating children. Therefore, parents should be together with their children in their learning process. With such support and attention, children become more obedient and feel valued, indirectly making them rely more on their families to spend their time wisely through more beneficial activities.

Research Problems

According to the Webster Dictionary (1913), the term "game" is defined as a mental and physical competition to win in a match. Online gaming began as early as 1969, initially developed for educational purposes. By the early 1970s, a system was created to facilitate online learning, allowing multiple users to access or use a computer together as needed. Surbakti (2017), states that online gaming has become a new lifestyle for some individuals, particularly among young people and students. Addiction to these games has been found to have a negative impact on learning achievement, as it can lead to laziness and a lack of motivation for learning. Learning is a fundamental human need, and human potential must be nurtured and developed for success. In today's world, learning is an integral part of human life, often facilitated by smartphones and internet networks that allow students to access various information at their fingertips.

Based on numerous studies, the higher the addiction level, the lower the learning achievement of students. This is because students lose focus and motivation for learning, finding education boring compared to the engaging nature of online games. Consequently, higher addiction to gaming leads to greater negative effects on students' learning, as they become less interested in studying (Harahap and Ramadan, 2021). However, online games can have a positive impact if used in the learning process, such as through the "Kahoot" platform, which can engage students in learning. According to Fauzi (2019), online gaming does not have a negative impact if students manage their time well, as it can reduce stress and facilitate social connections. Therefore, an individual's lifestyle influences their dependence on online games, affecting their learning motivation, academic performance, and social interactions. The learning outcomes of students addicted to online games are concerning and can affect their learning process (Rahyuni, et.al., 2021).

According to Rafee et al (2022), addiction to games, gadgets, and social media among school students has led to negative effects, including neglecting studies. This is because students prefer the enjoyment of gadgets over completing school work or studying. The study found that respondents lose motivation for learning, resulting in a decline in their academic performance. This finding is supported by Nahar et al (2018), who found that some students skip school just to play online games or engage in various activities at cyber cafes. Consequently, prolonged use of internet technology has social and academic consequences for users, especially school students.

Therefore, the government and Ministry of Education need to take appropriate action to help students addicted to online games, as it ultimately affects their learning achievement and leads to various social problems such as addiction to pornography and cyberbullying. The government could enact legislation or regulations restricting internet usage to only five to ten hours per day to reduce addiction. In South Korea, the "Shutdown Law" prohibits children under 16 from playing online games from midnight until six in the morning (Kalaisilven. et.al., 2019). Nearly 53.5% of Malaysians are involved in cyberbullying, posting negative comments on others' social media pages, and so on (Yuen, et.al., 2018).

Many Malaysians are unaware that addiction symptoms, if left untreated, can lead to other mental health problems such as depression. Counselors and the Ministry of Health can intensify efforts to help addicted students by organizing seminars or recovery sessions for

students addicted to online games and social media. According to Kalaisilven. et.all., (2019), the National Information Society Agency (NIA) has established an agency to address addiction problems and educate adolescents on the proper use of the internet and smartphones. Therefore, the Ministry of Multimedia can strengthen and expand the dissemination of information about addiction to parents to make them aware and monitor their children's activities better.

Parents should also supervise and establish rules at home to ensure that gadget use is limited to a few hours to prevent children from becoming addicted and neglecting their responsibilities, especially regarding learning. Parental firmness can prevent children from becoming too engrossed in online games, and the time parents spend with their children can reduce their dependence on online games or gadgets. Parental education, exposure, and knowledge about their children's activities on social media can help establish social control over reducing children's addiction. Therefore, the firmer the parental education, the more it helps reduce addiction and dependence on technology such as games (Kalaisilven. et.all., 2019).

According to Soh et al (2014), a good relationship between parents and children can reduce children's addiction to gadgets and online games. This is because engaging in good and friendly parenting activities can fill children's time without the need for gadgets or other distractions. Parents can teach their children from a young age how to use gadgets and the internet properly, such as understanding technological developments and how to obtain useful information for learning and work. Consequently, children will use technology advancements properly. Education or knowledge is also important for parents so they can educate their children and understand the effects, disadvantages, benefits, and steps to prevent addiction in children, (Fitriatun, 2021; Soh et al., 2014).

Furthermore, teachers can change their teaching methods in schools so that students are not easily bored with the same learning styles. It is well known that children born today are in a highly technological world, so they are easily exposed to various new technological advancements. Teachers can also use games in the learning process to engage students and sharpen their minds more deeply. According to Hendrawan et al (2022), using educational games for learning mathematics has greatly helped students in their learning process. This is because it provides a new way of learning and can generate interest in learning compared to traditional learning methods. Studies show that using educational games in the learning process can have a positive impact, as 87% of students agree that using these games in learning not only captures their interest but also facilitates understanding of the subject of mathematics. Therefore, the use of technology also greatly assists in the learning process, such as recording presentation videos through various applications like "Canva," which offers many useful functions that all students should explore to make the learning process easy and engaging.

Research Objectives

- i. To identify the impact of online gaming addiction on students' academic performance.
- ii. To identify strategies for reducing addiction to online gaming.

Literature Review

1) The Impact of Online Gaming Addiction on Students' Academic Performance

Based on the study by Rahyuni et al (2021), titled "The Influence of Online Games on Learning Motivation and Student Academic Performance in SD Pammana Subdistrict, Wajo Regency," this research analyzes the extent to which online gaming addiction affects students' performance and motivation. The study shows that online gaming addiction leads to a decrease in academic performance and learning motivation among students, as well as reduced social time. Therefore, an individual's lifestyle affects their dependence on online gaming, which in turn affects their learning motivation, academic performance, and social time. Online gaming will affect students' learning motivation; excessive gaming will have a negative impact, such as reducing social time with peers and affecting academic performance. This is because students who excessively play games will find it difficult to focus in class due to their higher interest in gaming. Therefore, online gaming will have negative consequences if students become addicted to it.

According to the study by Haryanti et al (2022), titled "The Effect of Online Games on Learning Achievement and Learning Motivation of MI Miftahul Huda Dono Sendang Tulungagung Students," this research analyzes the extent of the influence of online gaming on students' learning achievement and motivation. Addiction to online gaming will affect learning motivation, and the lower the motivation, the more it will affect students' learning achievement. This is because students are less interested in boring learning activities compared to challenging games that stimulate their thinking. Therefore, students tend to experience addiction to online games, which ultimately leads to declining learning performance and decreasing learning motivation. Student awareness is crucial in changing their lifestyle patterns so that they can balance their time effectively.

Furthermore, according to Fitriatun (2021), in the study titled "Trends of Online Game Addiction During the Pandemic Period with Student Academic Achievement," the research analyzes the relationship between the tendency of online gaming addiction and student academic achievement during the pandemic. The study found that the higher the level of addiction, the lower the academic achievement compared to lower levels of addiction, which lead to higher academic achievement. This means that if students spend more time or become addicted to online gaming, it will result in declining learning performance, whereas if students focus more on reviewing and academic activities, the opposite will occur. Therefore, students must have a high level of awareness to manage their time effectively for various needs, especially for playing, learning, resting, and more. This is because online gaming does not have negative effects if students know how to allocate their time wisely.

Steps to Reduce Addiction to Online Gaming

Parents play a crucial role in helping children avoid online gaming addiction. Therefore, the relationship, support, encouragement, and communication, along with rules set by parents, can assist in the optimal use of technology (Hashim et.al., 2019). Parents should ensure that children fulfill their school responsibilities or assignments before engaging in other activities such as gaming. By prioritizing focus on learning, academic performance can be enhanced, and parents should ideally play a role in ensuring their children's comfort and interest in learning (Aklima, 2019).

Parents' knowledge and education about technology, online gaming, and social media are crucial in helping children avoid addiction. If parents are aware of their children's activities, they can control them better (Kalaisilven et al., 2019). Social control and parental strictness in educating children can have a positive impact on technology use, and children will be more responsible, engaging in activities such as learning and playing with friends (Shaji, & Sebastian, 2020). Additionally, parents can establish rules such as limiting technology use, exploring content, understanding the benefits of each application, allocating time, and setting age limits. These measures help reduce technology addiction and foster better technology exploration and skills (Grizolio et al., 2020). Therefore, parents' attitudes, attention, and knowledge are crucial in reducing social and technological gaming addiction.

The government and involved parties such as the Ministry of Health, Multimedia, and Communication can expand awareness campaigns and seminars on the negative effects of technology and online gaming addiction. This is because it can lead to negative outcomes such as cyberbullying, underage sex, decreased academic performance, and mental health issues if not managed properly. Enacting laws that restrict technology use based on age levels can also help prevent addiction (Kalaisilven et al. 2019). Counselors can also intensify prevention and recovery activities to assist students experiencing such problems early on before they worsen. This is because addiction issues are very serious and need to be addressed and contained before they worsen. Teachers can also help students understand internet use better by using technological advancements or applications and games in learning (Hendrawan et al. 2022). Games are enjoyable to understand and engage with. Therefore, if used in the learning process, they can be more interesting and enjoyable, reducing the likelihood of addiction in students or children.

Implications of the Study

If poor exposure and social control occur among parents, it will lead to an increase in addiction among children. This is because parents who lack social control and adequate knowledge tend to be controlling and strict with their children's technology use, leading them to become addicted to online games and gadgets. Conversely, parents who provide support, encouragement, education, and rules to their children can effectively manage and control their children's technology use (Kalaisilven et al., 2019). Additionally, parents who lack knowledge and awareness of the dangers of gadget addiction tend to allow their children to play without proper supervision. Therefore, parental education is crucial to educate their children about the proper and safe use of technology (Soh et al., 2014).

Exposure and dissemination of information to parents are crucial to open their eyes widely to the dangers of internet and technology addiction. Thus, parents will be more aware and attentive to all their children's activities. Information dissemination should be done through seminars, newspapers, articles, television, and other easily accessible mediums to ensure that this knowledge can be utilized by everyone. If information dissemination and awareness are not carried out, the public will not know that many children or even themselves are involved in addiction until serious consequences occur, such as death, compromised health, and mental health problems (Ahmad et al., 2022). If the government and relevant parties do not help in reducing addiction problems, no one will be able to regulate the truthfulness level, and inappropriate information will spread more widely. The government

should establish specific acts or regulations to prevent the worsening of addiction problems in Malaysia (Kalaisilven et al., 2019).

Teachers and educators also play a role in helping prevent addiction problems among students by identifying students addicted to gadgets or games, conducting lectures on the dangers and benefits of technology, and using technology in teaching and learning methods (Sirait et al., 2019). Today's youth, who were born alongside technological advancements, will influence their learning styles. This is because they will easily become bored if teachers do not interact well or use innovation in the learning process. Teachers can use creative presentation methods such as beautiful slide presentations or video recordings (Ab Rahman et al., 2020). However, teachers must be aware of students' abilities and strengths, as some students may be less proficient in using technology. With such teaching methods, teachers and students can easily carry out tasks. Teachers can also communicate or monitor students' conditions if they cannot attend school. Therefore, many schools have established WhatsApp groups to facilitate communication between teachers and parents regarding school activities, enabling parental involvement and responsibility regarding the school's condition and learning processes.

Proposal

Numerous studies have proven that online gaming addiction has led to a decline in students' learning performance. It is hoped that further studies can be conducted on a broader scope in Malaysia. This is because it is difficult to find recent articles or journals focusing on online gaming addiction. Yet, we are well aware that addiction issues among students are increasing due to the rapid advancement of technology. Therefore, researchers can also examine the level of addiction among adolescents according to age groups, and it cannot be denied that even 5-year-old children are involved in online gaming addiction if their parents are too distracted and allow them to play without proper supervision and regulations. With in-depth research conducted, effective prevention measures can also be identified according to the age groups of children, and the government and other relevant parties will become more responsive.

Furthermore, widespread and open disclosure about preventive measures against online gaming addiction and technology is necessary to raise awareness among the public so that they do not become excessively obsessed with the excessive use of smartphones or gadgets. Gadget usage needs to be limited to maintain emotional, cognitive, health, and behavioral well-being, as users of all ages often neglect meal times, rest times, and ultimately compromise their health due to excessive focus on their smartphones. For example, in Taegu, it was reported that a 28-year-old man was found dead due to heart failure caused by extreme fatigue from continuous gaming for 50 hours. If studies like this are conducted more frequently, they will help raise awareness among the public about the dangers of online gaming addiction and technology.

Conclusion

Online gaming addiction poses significant risks to individuals who cannot manage it, impacting their education, health, social life, and behavior. Many Malaysians may not recognize their addiction to gaming or social media. Social influence, particularly support from parents, the government, organizations, and teachers, is crucial in preventing and addressing addiction.

Research indicates that such addiction adversely affects students' academic performance. Early intervention is essential to prevent severe, hard-to-treat addictions. Hence, this study aims to encourage parents, the community, and relevant parties to implement more activities or programs to mitigate online gaming addiction. It also emphasizes the need for all stakeholders to take this issue seriously.

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