

Play Game Addiction on Students' Learning Attitude Public Senior High School

Petrus Kondo¹, Eldiani Bawone², Alfrits R. Sinadia³

^{1,2,3} Universitas Klabat, Indonesia

Email: petrus.kondo@unklab.ac.id, eldianibawone@gmail.com,
alfritssinadi@unklab.ac.id

* Correspondence: petrus.kondo@unklab.ac.id

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ABSTRACT

This study aimed to find out the correlation between playing-game addiction and students' learning attitudes at a public senior high school, specifically to see if playing games excessively on gadgets affects students' learning attitudes. This study used a quantitative design that was descriptive and correlative. The instruments used were adapted from two questionnaires developed by Yong (2006) and Patricia (2017). There were 120 students in grades XI and XII in natural science and Social Science at one Public High School enrolled in the second semester of the school year 2021-2022 who were the respondents to this study. The findings showed that the level of game addiction was low, with a mean score of 2.43. Furthermore, the level of students' learning attitudes was high, with a mean score of 3.82. Next, it was found that there is a significant difference between males and females in game addiction. The mean score of Male students was 2.91 and that of female students was 2.08, which are categorized as neutral, and male students have a higher level of addiction to playing games than female students. It was found that there is a difference between male and female students in their learning attitudes, where the mean of female students was 3.96 higher than male students' 3.63, which was categorized as highly positive. Finally, it was found that there is a significant correlation between students' game addiction and their learning attitude as $p = 0.05 \leq 0.05$; in other words, the p-value was equal to $\alpha = 0.05$. This clearly showed that the more addicted the students are to playing games, the lower their attitude toward learning.

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Introduction

Online games are very popular, especially in a pandemic where all activities are done online. An online game is a game that is played online, either using a computer or smartphone. As the name suggests, online games are played using an internet connection, or Wi-Fi. An online game is very popular among young people today, whether they are

children or even adults. When someone often plays online games, it can be said that the person has been addicted to playing games, and it will be difficult to control themselves from not playing (Afriwilida & Wibowo, 2020). A study from Phuphaibul et al. showed that, in Thailand, it was demonstrated that children and adolescents have shown signs of increasing gaming habits and the risk of addiction to playing games [2]. According to the Thai Department of Mental Health, about 2.5 million children out of a population of 18 million children in the country are addicted to playing games, and the number of children who are addicted has grown steadily from 13.3% in 2007 to 14.4% in 2012 [3]. Similar data released showed that the list of active internet users in Indonesia has reached 24%, or about 10.7 million people, of the total population of Indonesia. And from internet usage data, it is estimated that online game players number around 10.7 million people, or about 10% of total internet users. They estimated that based on gender, those who play online games are 51,43% male and 48,57% female. (Erik & Wetik, 2020)

When children play the online game continuously, they may not realize how much time they are spending playing, which can make them lose a lot of time to do other more useful things. People who often play online games do not realize the length of time they spend playing. So many people play online games without realizing that they have taken a lot of time to do so (Kharisma et al., 2020). Many things or jobs that they should be doing have been taken up because they are busy playing online games. For children who are addicted to playing online games, it will be very disturbing to their learning attitude because they have spent a lot of time playing online games, so their attitude toward learning is affected (Oroujlou & Vahedi, 2011).

Attitude makes a difference in every aspect of a person's life, including in the education area. The attitude of students toward learning determines their ability and willingness to learn. Attitudes towards learning are important factors in the learners' levels of goal setting, problem-solving abilities, beliefs towards learning, their inner and external motivations in the process of learning, and all the academic performances they perform. Therefore, a learning attitude can be defined as a behavioral tendency when a student studies Academic matters. The tendency to react or someone's attitude towards something, person, or thing can be classified into accepting (liking), rejecting (disliking), and indifferent (not caring) attitudes. Student learning attitudes can also be influenced by the habits of the students themselves. One of the most prominent habits during the pandemic, or COVID-19 virus, was the existence of online games. Playing online games is one of the causes that has a huge impact on students today, and it affects their attitudes toward learning. The online game has become an important activity for schoolchildren in their daily lives [7]. Furthermore, many students experience addiction from playing online games, which has an impact on their knowledge, skills, and attitudes. Therefore, it can be said that students who are addicted to playing online games will change their learning attitudes during class (Nadeak, 2021).

Addiction to playing online games has negative effects on students. The concerns appear to be grounded, as a growing number of studies indicate that Internet gaming addiction is associated with various negative consequences such as sacrificing real-life relationships with people around you, getting in the way of other hobby activities, lack of sleep, disrupted work, lack of socializing, obsession with games played, inattention, stress, poorer academic performance, low well-being, and high loneliness (Garnada, 2020). Therefore, it is necessary to take action on the problem of addiction to playing games in students so that they can pay more attention to their future by being able to improve their learning attitude in school. Addiction to playing online games is a pattern

of repeated or continuous game behavior (video games or digital games), which may be offline or online. Online game addiction can make students unfocused with every lesson learned and even become people who do not care about the environment (Lopez-Fernandez, 2018). The main danger posed by online gaming addiction is investing extreme time in play. For this reason, all parties need to pay attention when addressing this matter.

Students who have a habit of playing online games have a big impact on their learning attitudes. While children and young individuals may often find it hard to dedicate their time, energy, and other resources to academic affairs, As a result, it greatly affects their learning attitude. Technology can be used not only as a means to play online games but also as a tool to learn. With the rapid growth of information technology in the learning process, the effort to regulate educational content, educational activities, and educational arrangements would be complete and adequate (Meral, 2019).

Children who often play online games excessively can become addicted. Game addiction is the excessive and compulsive use of a computer or video game that results in emotional problems that make the user unable to control their excessive use of online games. Playing online games without a time limit will provide clinically significant interference, such as preoccupation with playing to the point of forgetting time, withdrawal symptoms, unsuccessful attempts to control participation in the internet games, loss of interest in previous hobbies, continuing to overuse games despite knowing that there is a psychosocial problem, using games to escape or dispel negative moods, loss of close relationships with other people, jobs, or educational or career opportunities (Milani et al., 2018). Children who often play online games will find it difficult to stop playing due to the habit of playing and continuing to play. It was found out in Malang, East Java, that after students come home from school, many middle and high school students play video games online in the internet café (warnet) from the afternoon until late at night (Eskasasnanda, 2017). It was also found that every holiday, many students came to the internet café to play online games. This situation showed that playing online games can make children addicted to playing every time, which makes them motivated to continue playing. The reason that motivates students to play online games continuously is that the features used in these games are very impressive and can arouse the curiosity of those who play. Furthermore, online games are becoming popular among students because these games are designed visually to arouse the curiosity of players, are equipped with realistic pictures and sounds, and give the sensation as if the player is visiting a real-world location, which makes the game more interesting and does not make them bored to play. People who are addicted to playing games sometimes do not want to eat, sleep, or interact with other people and prefer to spend most of their time playing the game [14].

Children become loners and withdraw from the social environment when they become addicted to online games. This impact will be felt when students cannot control themselves and begin to feel that the online games that they play can be enjoyed at any time as their recreational activities, so there is a withdrawal from the social world. A journal entitled *The Impact of Online Games on Children's Character Change* explained that, in a Psychiatric Hospital in Grogol, four teenagers were addicted to games in 2012 (Sentana et al., 2019). Until now, they have been living in the hospital. One of the addicted children is named Andi; he was a smart student at school, but he was also inseparable from playing his favorite games, and because he plays excessive games, he began to withdraw from his association and often skips school just to play his online games. His parents often forbade him to play and even took his smartphone, but as a result, Andi got

angry. This is an explanation from the head of the Child and Youth Mental Health Installation at Grogol Hospital, Dr. Suzy Yusna Dewi SpKj.

Another factor that makes playing online games addictive for students is the environment of friendship or peer pressure. Playing online games is used by students as a way to be accepted in their peer environment. Peer pressure has a big impact on an adolescent's life because, in the adolescent phase, they are required to seek self-identity and become independent. In other words, when they try to get freedom from all the influence and protection of adults, they become closer to and more dependent on peer acceptance [16]. And one of the ways that they feel can be a place for acceptance from peers is through playing online games. As stated by Young (2009), peer pressure is the main reason why adolescents become game addicts because their friends are gamers, and it becomes more difficult for them to recover from addiction because most of them have computers in their rooms [17].

Another factor that makes children addicted to playing online games is that the game becomes a stress reliever for those who experience stress in the real world. In some cases, when people find it difficult in their lives, they will turn to playing games to distract themselves and escape from their problems and the realities of life [18]. And it is stated that playing games can help people escape from stressful situations in their daily lives [19]. Based on these ideas, it is understood that playing games can be a tool that can reduce levels of stress in people because it provides a sense of control, power, purpose, and rewards that people might achieve in the game world, especially violent games, thus allowing gamers to cope with stressful and depressive situations in life because they are given powers and abilities over a controlled virtual environment.

Student learning attitude is one of the assessments given by the teacher at school. Attitude is an activity to act, achieve something, think, and feel in the face of objects, ideas, situations, and values (Prasetyo & Fatonah, 2014). Furthermore, attitudes relate to individuals who create ideas, feelings, and behaviors about someone from psychological objects regularly [21]. Attitudes towards learning are important factors in the learners' levels of goal setting, problem-solving abilities, beliefs towards learning, their inner and external motivation in the process of learning, and all the academic performances they perform. Learning is a person's performance, which is done with effort. For that reason, it is stated that positive or negative attitudes toward learning are very influential on the success of learning (Şen, 2013). A positive attitude has a positive impact on students success in receiving lessons at school. To generate positive learning attitudes in students, there should always be ample motivation. It was found that students who were motivated learned better, had more opportunities to succeed, and developed creative and critical thinking [23]. It is also supported by Kara (2010) that students' positive beliefs about their achievement in acquiring knowledge encourage them to try to learn a subject. For this reason, it can be said that the motivation that is always given to students will help them cultivate a positive attitude toward learning to help them increase their achievement and knowledge of the lessons they take [24].

External encouragement is also needed for students learning attitudes, not only for achieving knowledge but also for self-development. To achieve knowledge, students need to have a willingness to learn. When there is self-awareness in students to know about knowledge in learning, with this self-awareness, students will be motivated to learn the subject [25]. It is also stated that learners obtain information by organizing it in their minds. So, when students have the self-awareness to strive for learning, they will be able to achieve success in learning [26]. The role of the teacher in generating a positive attitude

in students toward learning is also needed. The teacher's role is to support students in developing positive attitudes towards learning. Teachers' approach to fostering a positive attitude in students will help them get back on the right path. Students who are still in school can get good knowledge and understanding at school. The efforts made by schools to prevent addictive behavior are effective and efficient. Therefore, everything that teachers do to help students build awareness of the development of a positive attitude toward learning is necessary and good to do. Things that make students addicted and no longer care about their learning attitudes should be treated properly so that students can focus on developing their potential for learning to help their future (Griffin & Botvin, 2010). This idea in line with the statement state that the purpose of learning is not to remember knowledge the aim is to know knowledge, have the effort to learn, and most importantly can use knowledge for life (deep learning) (Wirth & Perkins, n.d.).

Anxiety can be one of the reasons students' learning attitudes become negative. Excessive anxiety in students can reduce their level of motivation, make learning decline, and, as a result, make their self-confidence negative [29]. In other words, when students become excessively anxious, it will affect their learning. Student anxiety may occur because of problems that are being faced by students, such as family problems, social or friendship problems, and academic problems, which may cause students not to be motivated, which results in not being confident in learning. The negative attitude of students toward learning is not only caused by excessive anxiety but also by subjects they do not like. The cause of students having negative learning attitudes is that they view a subject as less interesting and boring. Students who are less interested in a subject will show a bad attitude during the teaching and learning process, such as not paying attention to the teacher's explanation or not being interested in asking questions about the subject.

Students' gaming addiction can be related to their learning attitude. Students who are in a period of instability tend to fall for the experimentation of new things (Jordan & Andersen, 2017). Through this statement, it implies that positive new things can set good models for students to follow, but at the same time, new negative things, such as addiction to playing games, will be very detrimental for these students. Therefore, in a time of instability in student development, it must be noticed by both their parents and teacher. An argument stated that students who have an online game addiction tend to be less interested in other activities, feel restless when unable to play the game online, and have decreased academic achievement, social relationships, and health. As a result, students will experience an unstable life because they will only play games continuously and ignore other things, including school life requirements (Ghuman & Griffiths, 2012). It is risky for the student's life, even in their learning attitude at school. Therefore, it can be said that students who are addicted to playing games will affect their learning attitude. Not only did they lose their learning time, but they also did not pay attention to their surroundings. That has a very bad impact on the lives of students, who should focus on learning but only use them to play online games.

Another impact of addiction to playing online games on students' learning attitudes is a lack of concentration. As stated, students who are addicted to playing games will find it difficult to concentrate at school, become lazy and even skip studies, change their attitudes to become disobedient, and not care about the surrounding environment (Anas, 2020). In other words, addiction to playing online games affects students' learning attitudes, where they do not concentrate while studying, become lazy in learning, and even do not obey and care about the environment. This attitude will greatly affect their way of learning; maybe even their achievement or learning value will decrease.

Based on the aforementioned ideas, this study set out to describe how game addiction affects students' attitudes toward learning. More specifically, this study aims to respond to the following research questions: (1) How addicted are students to playing video games online? (2) What is the level of the students' attitude toward learning? (3) Do male and female students differ significantly in their propensity to become addicted to video games? (4) Do male and female students' attitudes about learning differ significantly from one another? (5) Is there a link between playing video games and students' attitudes about learning in the second year of a public senior high school?

Research Methods

This study utilized a quantitative design where the variable data was in the form of numerical data and questionnaires were used to collect data from respondents. Descriptive, comparative, and correlational designs were employed to answer the research questions. The respondents of this study were 120 students in grade XI of a public senior high school in Bolaang Mongondow, Manado, comprising 50 male students and 70 female students who enrolled in the second semester of the 2021–2022 school academic year.

The respondents who answered the questionnaire, which was manually delivered to 120 senior high school students majoring in Natural Science and Social Science using a convenience sampling approach, provided the data for this study.

Two modified questionnaires were the tools employed in this investigation. Nine items from Young (2006) were modified for the questionnaire to assess students' learning attitudes, while 20 items from Patricia (2017) were used to assess students' game addiction. The two questions were tailored for the respondents' personalities and translated into Bahasa Indonesia. Table 1. Questionnaire of Play Game Addiction and Students' Learning Attitude

Item Number	Items
	Play Game Addiction
1	<i>Saya merasa asyik bermain game online</i>
2	<i>Saya berulang kali melakukan upaya untuk mengontrol bermain game online</i>
3	<i>Saya merasa gelisah ketika mencoba mengurangi atau menghentikan bermain game online</i>
4	<i>Saya merasa murung/sedih Ketika mencoba mengurangi atau menghentikan bermain game online</i>
5	<i>Saya merasa depresi Ketika mencoba mengurangi atau menghentikan bermain game online</i>
6	<i>Saya merasa mudah tersinggung Ketika mencoba mengurangi atau menghentikan bermain game online</i>
7	<i>Saya benar-benar merasa perlu bermain game online untuk mencapai kepuasan saya</i>
8	<i>Saya tidak berupaya untuk mengurangi bermain game online</i>
9	<i>Saya tidak berupaya untuk menghentikan bermain game online</i>
10	<i>Saya tetap online lebih lama dalam bermain game online</i>

11	<i>Saya lebih memilih bermain game online daripada berkumpul bersama anggota keluarga</i>
12	<i>Saya lebih memilih game online daripada bermain bersama teman-teman di luar rumah</i>
13	<i>Saya menggunakan game online sebagai cara untuk melarikan diri dari masalah</i>
14	<i>Saya menggunakan game online sebagai cara untuk melarikan diri dari perasaan tidak berdaya</i>
15	<i>Saya menggunakan game online sebagai cara untuk melarikan diri dari rasa bersalah</i>
16	<i>Saya menggunakan game online sebagai cara untuk melarikan diri dari kecemasan</i>
17	<i>Saya menggunakan game online sebagai cara untuk melarikan diri dari depresi</i>
Students Learning Attitude	
18	<i>Saya rajin mengulangi materi pelajaran di rumah</i>
19	<i>Saya siap jika diminta mengerjakan soal didepan kelas</i>
20	<i>Saya membuat catatan setelah mendengarkan penjelasan guru</i>
21	<i>Saya bertanya jika saya belum paham materi</i>
22	<i>Saya rajin mencatat materi yang diberikan</i>
23	<i>Saya datang tepat waktu saat pelajaran di dalam kelas</i>
24	<i>Saya aktif mengerjakan soal yang diberikan guru</i>
25	<i>Saya mendengarkan penjelasan guru dikelas saat pembelajaran berlangsung</i>
26	<i>Saya langsung mengerjakan pekerjaan rumah (PR) yang diberikan guru</i>

30 students participated in a pilot research to determine the two modified questionnaires' reliability index. The results of the analysis of the data using the coefficient alpha revealed that all Cornbach's Alpha values were higher than .70. The results of the pilot study also revealed that all of the items for students' learning attitudes were legitimate, but three items from the Play Game Addiction questionnaire were invalid. The students' learning attitudes were .81, and the dependability of the play game addiction was .91

Results and Discussions

Descriptive Statistic of Level of Play Game Addiction

	N	Mean	Std. Deviation
Game	120	2.43	.77
Valid N (listwise)	120		

The mean score of play game addiction score was 2.43, which was considered to be a low level of addiction. As a result, there was low game addiction in grade XI of the public senior high school in Bolaang. The results of this study concur with those of Ahmed & Ullah (2013), who wrote "Video Games Addiction: Positive and Negative

Effects of Playing Video Games on Youth and Children". According to studies and surveys, playing video games is associated with addiction in young people and children, albeit the amount of addiction is seen as low.

Descriptive Statistic of Students' Learning Attitudes

	N	Mean	Std. Deviation
Game	120	3.82	.66
Valid N (listwise)	120		

The mean score of students' learning attitudes was 3.82, which was categorized as highly positive. Therefore, the level of students' learning attitude in public senior high school Bolaang grade XI was highly positive in the sense that students have a positive attitude toward learning. (Díez-Palomar et al., 2020) The finding by Palomar et al. (2020), entitled "Transforming students' attitudes towards learning through the use of successful educational actions," has similar results obtained by researchers to this present study. A quantitative approach has been performed using attitude tests validated by previous research. This study showed that in both cases, the participants showed positive attitudes, meaning that there is a relationship between students' attitudes towards learning and educational actions where the level of student learning attitude can be categorized as highly positive.

Descriptive Statistic of Play Game Addiction between Male Students and Female Students

	Gender	N	Mean	Std. Deviation	Std. Error Mean
Game	male	50	2.91	.57	.081
	female	70	2.08	.71	.085

The independent sample test (*T-Test*) was employed to compare the means of playing game addiction between males and females. The mean score of play game addiction between male students and female students was 2.91 and 2.08, which were categorized as neutral addiction for male students and low addiction for female students, respectively. Therefore, there was a difference in game addiction between male and female students in the public senior high school of Bolaang, where male students had a higher level of addiction to playing games than female students. The results of this study were similar to the results of the study by (Vyjayanthi et al., 2014), entitled "Gender Differences in the Prevalence and Features of Internet Addiction among Indian College Students." They found that there is a significant difference between gender in the Prevalence and Features of Internet addiction, where it was found that male students had higher addiction rates than female students.

Descriptive Statistic of Students' Learning Attitude between Male Students and Female Students

	Gender	N	Mean	Std. Deviation	Std. Error Mean
Attitude	male	50	3.63	.61	.086
	female	70	3.96	.64	.076

This study used the independent sample test (*T-Test*) to compare the means of students' learning attitudes between male and female students. The mean scores of students' learning attitudes between male students and female students were 3.63 and 3.96, which were categorized as highly positive. Therefore, there was a difference in students' learning attitudes between male and female students of a public senior high school in Bolaang, where female students had a higher level of positive attitudes than male students.

Correlation between Playing Game Addiction towards Students' Learning Attitude

		Game	Attitude
Game	Pearson Correlation	1	-.15
	Sig. (1-tailed)		.05
	N	120	120
Attitude	Pearson Correlation	-.15	1
	Sig. (1-tailed)	.05	
	N	120	120

The findings revealed that the relationship between Bolaang public senior high school students' playing game addiction (an independent variable) and their learning attitude (a dependent variable) was negatively correlated, with the correlation coefficient $r = -0.15$ indicating a negative value or negative direction. In other words, when students became addicted to playing video games, their attitudes would decline, and vice versa. This indicated that if the independent variable (playing game addiction) increases and the dependent variable (students' learning attitude) drops. The findings of this study and a study by Meral (2019) titled "Students' Attitudes Towards Learning: A Study on Their Academic Achievement and Internet Addiction" have some parallels. Based on the correlation analysis, the outcome indicated that a negative association had been discovered.

Conclusion

Circumstances like the availability of the internet and gadgets give a lot of opportunities for students to play online games. When students have an excessive and uncontrollable preoccupation with playing games, resulting in neglect of important areas of their lives such as academics and social relationships, this could be referred to as play game addiction. The findings of this study showed that the level of game addiction in the public senior high school of Bolaang was low, and the level of students' learning attitudes was high. This indicated that public senior high school students in Bolaang perceived

their academic lives as still more important than playing online games. It was also found that there was a correlation between game addiction and students learning attitudes. This meant that playing games can disrupt students' learning attitudes by fostering a mindset that prioritizes instant gratification over long-term goals.

Based on the findings of this study, there are several recommendations to be addressed. Though the level of game addiction was low, there should be an educational program to raise awareness about the potential impact of game addiction on learning attitudes. There should be information given on the negative impact of excessive gaming and the importance of a balanced approach to technology use. The results showed that students' learning attitudes were high. It is recommended that teachers maintain and increase a positive attitude toward students from any school life activities that have had a positive impact on them. The teacher works together with the parents of the students to promote open communication channels with the students to address concerns and develop strategies for responsible gaming. Educators may also provide alternative, engaging learning experiences by designing lessons in game forms that will pique the eagerness of students to learn. Incorporate gamified elements, technology-enhanced activities, and collaborative projects that capture students' interest and motivate their participation in learning.

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