

The Effect of Online Games on the Emotions of Junior High School Students

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Abstract

Indonesia is one of the biggest gaming markets in the world. Most mobile or video games are played via mobile phones, tablets, or consoles. According to a data report from We Are Social, Indonesia is a country with the third largest number of video game players in the world, 94.5%. This study aimed to discover more about the influence of online games on adolescent emotions at one of the junior high schools in Sepatan, Tangerang, Indonesia. The research design used in this study is a quantitative approach with a correlational design. The sampling technique used in this study was purposive sampling. The sample used amounted to 172 respondents. The data analysis used in this study is Kendall's tau-b correlation test, which looks at the correlation coefficient value. The results of this study show that students' use of online games is in the moderate category (76.7%), and emotions are in the low category (65.1%). In the statistical test results obtained, $p\text{-value} = 0.000 \leq 0.05$. Therefore, it can be concluded that online games significantly influence adolescent emotions.

Keywords: Online Games, Emotion, Teenager

INTRODUCTION

The rapid progress of technology in this era of globalization is very visible. The rapid development of technology has a significant impact on human life from various points of view. Human basic needs for technology are also increasing along with the celebration of scientific progress. Technological developments have experienced significant progress and continue to develop to this day, and have spread throughout the world. Numerical evidence and findings, both simple and complex, can support this claim (Matyushok *et al.*, 2021).

According to reports from reporting data, in January 2022, around 4.95 billion people will be using the Internet. In January 2021, there was an increase of 4% from the previous figure of 4.76 billion people. The number increased by around 6.6% to around 4.21 billion in 2019. In 2020, there was a 4.9% increase in internet users, reaching a total of 4.42 billion people. According to data, the Northern Europe region has the highest level of internet usage, reaching 98%. The percentage of internet use in Southeast Asia was 72% simultaneously. In January 2022, the number of internet users in Indonesia will reach 204.7 million people. This figure covers around 73.7% of Indonesia's total population (Wendratama & Yusuf, 2023).

The 2022 Indonesian Internet profile report has been released by the Indonesian Internet Service Providers Association (APJII). According to the APJII report, the internet penetration rate in Indonesia reached 77.02% in 2021-2022. The trend of internet distribution in Indonesia is getting more advanced yearly. In 2018, internet usage in Indonesia reached 64.8% and will increase to 73.7% in 2021-2020. In 2023, according to data from APJII, around 78.19% of the

population, or around 215,626,156 people, with a total population of 275,773,901 people, have used the Internet.

Globally, there are approximately 3.09 billion active video game players. By 2024, there are expected to be 3.32 billion gamers worldwide. The US has more than 3,000 esports players. Asia is home to nearly 1.5 billion gamers. 53% of men are gamers. 52% of gamers subscribe to at least one gaming service. According to recent data, there are approximately 3.32 billion active video game players worldwide (Kolivand *et al.*, 2021). The number of online game users in Indonesia reached 73.7 percent, with 196.7 million users. APJII also divided the internet penetration rate in Indonesia based on 38 provinces. The data shows Banten ranked first with a penetration rate of 89.10 percent (Sari, 2022).

According to the report, of the 8,510 people surveyed, only 23.29% have ever played online games. Of this group of online game consumers, the majority, or 42.23%, spend more than 4 hours per day playing. Then, those who play online games for 3-4 hours a day are 27.46%, those who play 2-3 hours a day are 11.94%, and those who play 1-2 hours a day are 11.10%. As for consumers who play games less than 1 hour a day, only 7.26%, the least compared to other groups. APJII also found that 89.64% of online game consumers have never participated in a tournament, while only 10.36% have. This shows that most consumers make online games only as a hobby or leisure time filler. The APJII survey involved 8,510 respondents spread across Indonesia. Respondents were selected using a multi-stage random sampling technique and then interviewed from January 10-27, 2023 (Khairurrizal & Fitria, 2024).

Research institute Populix compiled several online game applications (games) often used by Generation Z and millennials in Indonesia. As a result, Mobile Legends was the most played application by 49% of Gen Z respondents and 31% of millennials in March 2023. Among Gen Z, Mobile Legends is played more by men, namely 61%, while 32% of women. Just like Gen Z, more millennials who play Mobile Legends are men, 44%, while women make up 17%. Second is Candy Crush, played by 11% of Gen Z and 22% of millennial respondents. Populix said millennial women play this game the most. Outside of these two online games, the proportion is less than 10% for each generation. PUBG was chosen by 5% of Gen Z and 6% of millennial respondents. There is also PES, played by 4% of Gen Z and 3% of millennial respondents. Next is FIFA, played by 3% of Gen Z and 5% of millennials. Clash of Clans is also on this list, played by 3% of Gen Z and 4% of millennials. Then there is Free Fire, chosen by 3% of Gen Z and 2% of Millennials; Minecraft by 2% of Gen Z and 3% of Millennials; Genshin Impact by 2% of Gen Z and 2% of Millennials; and Among Us by 2% of Gen Z and

1%. The gaming app survey involved 1,108 Gen Z and 932 millennials in Indonesia. The survey was spread across several major Indonesian cities on the islands of Java, Sumatra, Kalimantan, and Sulawesi (Vajawat *et al.*, 2021). Online games have continued to develop very rapidly in recent years. In Indonesia itself, in the last three years, various online game titles and genres have continued to increase in popularity (Paremeswara & Lestari, 2021).

Online Games are visual-based games that are played using a computer or gadget connected to a network, be it a LAN or the Internet. This online game is a game that is played. There are challenges which, of course, are challenge in this game make players become addicted to continuing to play it, this can be done, but it becomes a habit that later becomes addicted and becomes a habit it will be difficult to stop and makes players forget about time and their surroundings (Sublette & Mullan, 2012). Online games are visual games presented as three-dimensional visual representations with challenges and effects that attract the player's attention (Carvalho *et al.*, 2016). Online game addiction is a type of addiction resulting from high activity in playing online games, which can be accessed via smartphones and supported by internet technology (Winata & Pratiwi, 2023).

Getting emotional easily is one of the negative impacts of playing online games. Many things trigger emotions, such as a slow connection, fps drops, or playing with a bad team, which causes defeat. Although emotions are normal, being excessive because of online gaming problems is not good. The first scientific reason that triggers emotions when playing online games is the problem at hand. Everyone must have their own reasons when playing online games, such as filling their spare time, feeling bored, and escaping from real-life problems. When gaming is based on an alternative to escape, then positive feelings become the goal to obtain by winning the game. However, if what is obtained is defeat, this adds to the problem because instead of feeling entertained, you feel more upset, which worsens the atmosphere (Griffiths & Nuyens, 2017). Emotions are always defined as feelings that an event experienced by an individual can process. Emotions become something that experiences a crisis when children are in their development stages.

The presence of emotions is an important factor that influences a child's behavior and can appear at unexpected times. Emotions can often cause mixed feelings, such as sadness, anger, and joy. Many children or teenagers dealing with gadgets or games will have less control over their emotions; for example, they will be angry if they lose a game, and children will be very happy if they can win the game (Ari *et al.*, 2020). Emotions are a form of self-expression that originates from within and is influenced by external factors that may or may not align

with the person's desires. Self-evoked emotions are a form of reaction to stress or other circumstances that lead to emotional expression (Riswanto & Fauziah, 2022).

Playing online games with a frequency that is said to be quite long and playing excessively can also negatively influence health. This will influence the child's emotional and social development in the future and will also influence his behavior. Adolescent children are at an age that is still vulnerable and relatively weak, physically and mentally, because teenage children cannot yet differentiate between what is good and what is bad for children their age (Sari *et al.*, 2024). Teenagers at this age have great energy and fiery emotions, while their self-control is imperfect. ssTeenagers also often experience feelings of insecurity, unease, and worry about feeling lonely. The development of emotions towards changes in behavior is generally clear. In everyday life, we can see several emotional behaviors, for example, aggressiveness, excessive fear, apathy, and self-harming behavior, such as self-injury and hitting one's head (Annisa, 2022). The result showed that the mobile legends online game impacts students' emotional development. The positive impact included giving joy, practicing foreign languages, and growing friendships. The negative impacts included irritability, using foul language, acting ssphysically, being impolite and disobedient, neglecting their responsibilities, and causing a sense of laziness (Sari, 2022). Online games can also have an addictive impact on players who like playing video games is wrong. The only thing is to stay at the game center. One can kill time and money or ignore the activity just to enjoy playing the game they like online. Playing online games that are hard to give up in the end will have physical, emotional, social, academic, and even economic implications for the players (Aldris, 2023).

After conducting a preliminary study at one of the junior high schools in Sepatan, Tangerang, Indonesia, with the number of students in class 7 being 301 and obtaining information that the average student and female student already uses gadgets and based on the results of observations, the majority of students and students play online games, namely the Mobile Legend and Free fire games. Then, the author observed three teenagers and gave rewards for winning the game. In this observation, the writer observed the three teenagers playing online games to see their emotions in playing the game and found that the three teenagers objectively saw their emotions overflowing when the game started not going according to their wishes, angry when losing the game, and looking happy when the opponent weakens in the game. Sometimes, one of them said rude things while playing. Therefore, the author is interested in taking the research title "The Influence of Online Games on Teenagers' Emotions."

METHOD

This study used a quantitative method with a cross-sectional analytic design; the quantitative method is a research study that takes a large amount of data. It could be tens, hundreds, or maybe thousands. This is because the population of quantitative research respondents is vast (Rahi, 2017). The research was conducted at one of the junior high schools in Sepatan, Tangerang, with a population of 301 students and female students in grade 8. The sample is a selection of population members to be used for research (Hossan *et al.*, 2023). The sample in this study, namely 172 respondents, used purposive sampling.

An instrument is a research tool in the form of a collection of tests to collect data as processing material (Kumar *et al.*, 2023). The research instrument uses closed questions. The research statement total is 25, using a Likert scale. The Likert scale is used to measure the attitudes, opinions, or perceptions of a person or group of people regarding an event and social phenomenon based on the operational definition determined by the researcher (Younas & Porr, 2023). Data collection techniques are methods used to collect information or facts in the field. The data collection methods used were primary data and secondary data. Primary data is data obtained directly from the source. Primary data results from one of the data collection methods (Mazhar *et al.*, 2021). Secondary data is obtained by a researcher not directly from the object, but through other oral and written sources (Mohajan, 2018).

RESULTS AND DISCUSSION

1. Respondent Characteristics

Based on this research, the most respondents whose data were taken were men, 96 respondents with a percentage (55.8%) in Tabel 1. At the time of data dissemination, we asked male and female students about playing online games so that more men were obtained in collecting research data.

Table 1. Respondent Characteristics

Gender	Frequency	Percentage
Male	96	55.8
Female	76	44.2
Total	172	100.0

2. Online Games

Online games are usually played via an internet network and always using the latest technology, such as modem or cable connections (Kirriemuir, 2000). Online games refer to games played over a computer network, most often the Intssetnet. Online games can range from simple text-based games to games incorporating complex graphics and virtual worlds populated by many players simultaneously. Table 2 shows online games paid at one of the junior high schools in Sepatan, Tangerang, Indonesia.

Table 2. Percentage of online games at one of the junior high schools in Sepatan, Tangerang, Indonesia

Online Games	Frequency	Percentage
Mobile legend Bang-Bang	101	58,7%
Free Fire	50	29,1%
Genship Impact	8	4,7%
Hago	3	1,7%
Sakura	7	4,1%
Candy Crush Saga	3	1,7%
Total	172	100%

Based on Table 2, the games are often played by students: Mobile Legend Bang-bang 101 people (58,7%); Free Fire 50 people (29,1%); Genshin Impact eight people (4,7%); Hago three people (1,7%), sakura seven people (4,1%) and candy crush saga three people (1,7%). The most played game is Mobile Legend Bang-bang with 101 people (58,7%). Because only games in the action (fighting) genre. The research by Putri Lombong shows that the level of playing online games in late teens in Dusun Harapan Jaya Kampung Maredan Barat is categorized as high, with a mean value of 3,57. Mark's mean was 3.57, with high interpretation identified based on demographic details of late adolescent respondents, namely gender, age, and parents' jobs (Limbong *et al.*, 2024).

Based on the study results, it is known that the duration of playing on male and female students at one of the junior high schools in Sepatan, Tangerang, Indonesia, is more in the less than 2 hours category with a total of 73 respondents (42.4%) in Table 3. It can be said that, on average, students and female students at one of the junior high schools in Sepatan, Tangerang, Indonesia, can still control their hours of playing online games. With this, the duration results will affect the categories obtained on the online games variable to determine at what stage adolescents at one of the junior high schools in Sepatan, Tangerang, Indonesia, play online games.

Table 3. Percentage of Duration in Online Games at one of the Junior High Schools in Sepatan, Tangerang, Indonesia

Duration	Frequency	Percentage
< 2 hours	73	42.4
2 hours	64	37.8
>2 hours	35	20.3
Total	172	100.0

Then, on the use of online games, it was found that students and female students at one of the junior high schools in Sepatan, Tangerang, Indonesia, the majority, are in the moderate category in the online games variable, totaling 132 respondents (76.7%). It can be stated that, on average, male and female students can control playing online games.

Table 4. Percentage of Category Playing Online Games at one of the Junior High Schools in Sepatan, Tangerang, Indonesia

Category	Frequency	Percentage
Low	28	16.3
Medium	132	76.7
High	12	7.0
Total	172	100.0

3. Emotion

Emotions are reactions to certain situations carried out by the body. Things usually related to a person's thinking (cognitive) activities, namely the nature, and intensity of emotions, are due to the perception of the situation that occurs (Shuman & Scherer, 2014). Being easily emotional is one of the negative impacts of playing online games. Many things trigger emotions, such as a slow connection, low FPS, or playing with a lousy team that causes defeat. Even though emotions are normal, becoming excessive due to online gaming problems is certainly not good (Griffiths & Nuyens, 2017). The research by Kulikova & Maliy (2015) shows that two respondents have high emotional data for junior high school students, with a percentage of 29%. In comparison, there were 35 respondents with a percentage of 51%, and the lowest was 33 respondents with a percentage of 46,1%. This means that the results above fall into the medium category; if we can control the habits of students who play games, the percentage drop, and the respondents' emotions to increase also experienced a decline (Sharma *et al.*, 2022).

Based on the study's results, it was found that most emotional variables at one of the junior high schools in Sepatan, Tangerang, Indonesia, were in the moderate category, with a total of 112 respondents (65.1%). This is because, in the use of online games, there are results that students and female students at one of the junior high schools in Sepatan, Tangerang, Indonesia are still in the moderate category, so the emotions obtained in students and female students can be said to be able to control emotions when playing online games.

Table 5. Percentage of Emotion Category Playing Online Games at one of the Junior High Schools in Sepatan, Tangerang, Indonesia

Category	Frequency	Percentage
Low	8	4.7
Medium	112	65.1
High	52	30.2
Total	172	100.0

4. The Effect of Online Games on Teenagers' Emotions

Based on the results of the distribution of characteristics in Table 4, it is known that respondents with online games variables for the low category amounted to 28 people (16.3%), 132 people (76.7%) and 12 people (7.0%). Therefore, it can be concluded that most students at

one of the junior high schools in Sepatan, Tangerang, Indonesia, are in the moderate category in the online games variable, with a percentage of 76.7%.

Based on the output results obtained, it is known that respondents with emotional variables obtained for the low category amounted to 8 people (4.7%), 112 people (65.1%), and in the high category, a total of 52 people (30.2%). With this, most of the results obtained at one of the junior high schools in Sepatan, Tangerang, Indonesia, are in the medium category.

Based on the results of the output of this study in the form of Kendall's tau-b correlation analysis, it is revealed that there is an influence between the variables of playing online games and emotions that have significance. If the value (2-tailed) of 0.000 is less than 0.05, it can be concluded that the online games variable significantly impacts the emotion variable. Based on the correlation coefficient of 0.411, which is higher than the rtable value of 0.149, it can be concluded that there is a significant influence between the online games variable and the emotion variable in adolescents at one of the junior high schools in Sepatan, Tangerang, Indonesia. Therefore, the hypothesis is that H_0 is rejected and H_a is accepted.

CONCLUSION

The use of online games at one of the junior high schools in Sepatan, Tangerang, Indonesia, is in the moderate category, totaling 132 respondents (76.7%). In adolescent emotions, the results obtained in the moderate category were 112 Respondents (65.1%). There is an influence of online games on adolescent emotions with a correlation result of 0.411, it can be concluded that the category in the results of this study is moderate. The more frequently playing online games, the higher emotions will increase, and vice versa. If the teenager can control online games, the child's emotional level decreases or is low at one of the junior high schools in Sepatan, Tangerang, Indonesia. The use of online games is said to be moderate; individuals can control the intensity of play and still realize that activities or tasks in the real world are more important than playing online games. Apart from that, emotions are moderate if someone can still suppress their emotions by not saying or behaving rudely towards those around you. Individuals know how to control emotions; even though it is not completely controlled, it can still limit itself in speech and behavior.

SUGGESTIONS

One of the junior high schools in Sepatan, Tangerang, Indonesia in this study. It is hoped that our school can get the result of this research and provide education and understanding to students about the dangers of playing online games on mental and physical health. Schools can also add extracurricular activities at school so that students can have more control in using

online games with more in-school activities such as sports together, singing, activities in class, and doing quizzes to train the activeness of students and female students.

Hopefully, future writers can find and develop the impacts of playing online games. The games currently popular and widely used, namely Free Fire and Mobile Legend, received suggestions in further research as "The Influences of Intensity of Playing Free Fire on Learning Achievement or The Impact of Playing Mobile Legend on Learning Achievement".

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