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## RESEARCH ARTICLE

# Effect of Online Game's Intensity on Verbal Aggression Behavior in students of SMP Negeri 10 Makassar

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**Abstract:** Mobile Legends: Bang Bang is designed as a self-entertaining game that can stimulate adrenaline. One of the impacts of playing Mobile Legends: Bang Bang is verbal behavior that tends to be negative and aggressive which is caused by the high intensity of playing online games and even makes players unconsciously apply it in their daily lives. The large amount of free time that players use to play causes addiction and changes in the individual's character to become more aggressive. This research used quantitative methods with accidental sampling techniques. The respondents in this study were 117 students from SMP Negeri 10 Makassar who played the online game Mobile Legends: Bang Bang with the age range of 12-15 years. The instruments used were the Online Game Playing Intensity scale and the Verbal Aggression scale. The data analysis used is simple regression analysis with the help of SPSS 24.0 software. The results of data analysis obtained a coefficient of determination (R Square) of 0.184 with a significance level of  $p = 0.000$  ( $p < 0.05$ ), so it can be concluded that the intensity of playing online games has a positive and significant influence on the verbal aggression of students at SMP Negeri 10 Makassar.

**Keywords:** Online Game's Intensity, Student, Junior High School, Verbal Aggression.

## 1. Introduction

One form of technology that plays an important role in everyday life, namely the internet. Internet is currently used in various ways, such as accessing information, communication, health, education, lifestyle and entertainment facilities. One type of entertainment means of using the internet is online games. The results of a survey conducted by We Are Social (Katadata.co.id, 2022) in 2022 show that Indonesia is in 3rd country with the largest number of online game players in the world with a percentage of 94.5%. As technology develops, online games have developed into several types, one of which is Massive Online Battle Arena (MOBA).

The Massive Online Battle Arena (MOBA) is a type of game that combines the Real Time Strategy (RTS) and Role Playing Game (RPG) game genres. This type of game is played by running one character from two opposing teams with the aim of destroying the opponent's base. The hero characters played have skills with their own strengths and weaknesses, so players are required to work together with team members in order to win the match (Ramadani, 2018). Vero (ASEAN communications agency) has conducted a study on 470 Indonesian people showing that all participants agree that MOBA is the most popular type of e-sport (esports.id, 2022). The competitive aspect of MOBA makes players feel never



satisfied so the feeling of being challenged within the player can influence competence among the individuals (Wibowo, 2021). One of the popular MOBA-type online games is Mobile Legends: Bang Bang.

Mobile Legends: Bang Bang is an online game in the Massive Online Battle Arena (MOBA) genre which designed as a game to entertain people and enable to stimulate adrenaline. This game can be played by both men and women. Moreover, it can also be played by all ages (Raharjo, Saragih, & Haque, 2024). Mobile Legends: Bang Bang can have an impact on verbal behavior that tends to be negative and aggressive. This is because players get too carried away when playing so they say harsh words spontaneously when they are annoyed (Rakhmawati, Purba, Engedi, Gemilang, Salsabila, & Billah, 2020). Greitemeyer's (2014) research results suggest that games with competitive and violent themes have the potential to increase aggressive behavior in individuals' daily lives, such as the emergence of feelings of anxiety and frustration.

Verbal aggression is a form of speech that can hurt individuals, such as cursing, insulting, and saying dirty words due to the influence of playing online games (Nugraha, 2019). Swearing or saying harsh words while playing aims to express irritation. One factor that can influence the emergence of verbally aggressive behavior when playing games is the intensity of playing online games. The high intensity of playing online games makes players unconsciously learn to behave aggressively which is significantly applied in daily life (Febrina, 2014). The large amount of free time that players use to play can cause addiction and changes in the individual's character to become more aggressive (Nugroho, 2020).

Terok, Tololiu, and Rompis (2018) stated that the impact that arises due to the habit of playing online games with high intensity, is that players become apathetic towards the surrounding environment because they are too focused on their phone when playing. Players also face difficulties to accept defeat. Individuals mock other individuals and tend to speak harshly when disturbed when playing games and express their frustration by slamming objects around them.

Based on the explanation above, researchers are interested in examining the influence of the intensity of playing online games on the tendency for verbal aggressive behavior in students at SMP Negeri 10 Makassar. The proposed research hypothesis is that there is a positive and significant influence between the intensity of playing online games and the tendency for verbal aggression in students at SMP Negeri 10 Makassar.

## 2. Literature Review

### 2.1. Verbal Aggression

Infante and Wigley (1986) defined verbal aggression as behavior that attacks an individual's self-concept to hurt other individual psychologically. Verbal aggression is behavior that hurts or injures another person verbally and lead to psychological injury (Buss & Perry, 1992). Lalitya and Tedjasaputra (2019) also added that verbal aggression is the behavior of individuals who insult and injure other individuals using aggressive words with the aim of arguing and cursing.

Fuadiana (2021) stated that verbal aggression is an attitude aimed at injuring, hurting or harming an opponent without any direct contact with the target verbally or mentally. Verbal aggression can also be interpreted as aggression in the form of hurtful words such as swearing, and saying dirty words due to the influence of playing online games (Nugraha, 2019). Based on this explanation, researchers concluded that verbal aggression is behavior that aims to injure verbally, such as insulting, cursing, and saying dirty things to other individuals.

Anderson and Huesmann (2003) suggest that there are six aspects of verbal aggression: mocking, denying, bragging, screaming, threatening, and deceptive. Guswani and Kawuryan (2011) stated that the factors that influence the occurrence of aggressive behavior are

emotional maturity, self-control, resilience, emotional intelligence, and media influence. Firdaus, Muhari, Christiana, and Pratiwi (2013) stated that the factors that influence aggressive behavior are based on research results called internal factors and external factors. Internal factors are factors that originate within the individual, including the desire to joke, frustration, needs, habits, the desire to express feelings, emotions, and imitation. External factors are factors that originate from outside the individual, including conflicts with family, the wrong environment, and social influences.

Putri, Bahri, Bakar, and Khairiah (2021) stated that the factors that can influence the emergence of an individual's tendency to behave aggressively consist of internal and external factors. Internal factors include biological factors, self-control, thinking skills, emotional skills, positive thought patterns, and the individual's own qualities. Meanwhile, external factors include parenting patterns, social norms, and learned habits. Isnaini, Malfasari, Devita, and Herniyanti (2021) stated that playing intensity can increase to verbal aggressive behavior in online games. High playing intensity when playing online games tends to experience obstacles and defeat. Individual failure when playing games for a long duration of time and repeatedly causes individuals to perform verbal aggression such as harsh words and swearing. High playing intensity can also lead to the transmission of verbal aggressive behavior due to socialization between individuals when playing online games.

Hamilton (2012) stated that verbal aggression has an impact on people's lives, both individually and collectively because it can cause disputes between social groups. Repeated aggression over a long period of time can affect an individual's personality (Kulsum & jauhar, 2014). In addition, aggression can be passed on to the next generation, through parents to children, and so on (Cappell & Heiner, 1990).

## *2.2. Intensity of playing online games*

Griffiths, Davies, and Chappell (2004) stated that the intensity of playing games is the average amount of time an individual spends playing games each week. Febrina (2014) also stated that the intensity of playing online games is a measure of the frequency or number of time units (duration) that individuals use in online game-playing activities with emotional motivation. The intensity of playing online games can also be defined as the amount of interest an individual has in playing online games (Kartini, 2016).

Sandya and Ramadhani (2021) stated that the intensity of playing online games is the frequency and duration of individual activity in playing various kinds of games that can be accessed by many players via the internet network. Hamdani, Razak, and Firdaus (2022) stated that the intensity of playing online games is an individual behavior that is carried out continuously in playing online games and spending a lot of time enthusiastically and actively, and using the abilities they have continuously in enjoying a game to get desired results in order to achieve satisfaction in playing online games. The aspects of intensity of playing online games according to Horrigan (2000) are as follows: frequency, long access, and impact of intensity of playing online games.

Research conducted by Isnaini, Malfasari, Devita, and Herniyanti (2021) on teenagers who played the PUBG online game showed that there was a significant relationship between the intensity of playing the PUBG online game and teenagers' verbal aggressive behavior. The results of research conducted by Raharjo, Saragih, and Haque (2024) also suggest that there is a significant positive correlation between the intensity of playing Mobile Legends: Bang Bang and verbal aggression, which means that the higher the intensity of playing Mobile Legends: Bang Bang, the higher the verbal aggression. On the other hand, the lower the intensity of playing Mobile Legends: Bang Bang leads to lower verbal aggression.

Kartini (2016) stated that playing online games can cause individuals to become more emotional and have the intention to behave aggressively such as shouting and saying rude things. The results of research conducted by Isnaini, Malfasari, Devita, and Herniyanti (2021) also suggested that games with a violent theme can influence individuals to become more

aggressive. One of the online games, namely Mobile Legends: Bang Bang, can cause verbal behavior that tends to be negative and aggressive. This is because players get carried away when playing so they say harsh words spontaneously when they are annoyed (Rakhmawati, Purba, Engedi, Gemilang, Salsabila, & Billah, 2020).

Febrina (2014) stated that with the high intensity of playing online games, players unconsciously learn to behave aggressively. Isnaini, Malfasari, Devita, and Herniyanti (2021) stated that high playing intensity can make players tend to experience obstacles and defeat. Failure when playing games for a long time repeatedly causes players to engage in verbal aggression such as harsh words and swearing.

### 3. Research Hypothesis

Ha: There is a positive and significant influence between the intensity of playing online games and the tendency for verbal aggression in students at SMP Negeri 10 Makassar.

H0: There is no positive and significant influence between the intensity of playing online games and the tendency for verbal aggression in students at SMP Negeri 10 Makassar.

Based on the literature review above, the hypothesis proposed by researchers in this study is that there is a positive and significant influence between the intensity of playing online games and the tendency for verbal aggression in students at SMP Negeri 10 Makassar.

### 4. Research Method and Materials

#### 4.1. Research variable

The variables in this research consist of two, namely Verbal Aggression as the dependent variable and Intensity of Playing Online Games as the independent variable.

#### 4.2. Research Respondents

Sampling in this study used a non-probability sampling technique, which is based on non-random considerations, such as the suitability of the sample to the criteria formulated by the researcher in accordance with the objectives (Mulyadi, 2011). The non-probability technique used is accidental sampling, namely a technique for determining samples by chance, individuals who coincidentally meet the researcher can be used as samples if the individual is suitable as a data source (Sugiyono, 2013). The criteria for respondents in this research are students who play the online game Mobile Legends: Bang Bang with an age limit of 12-15 years.

The population size in this study is unknown, so sampling in this study was determined using the sample size formula (Santoso, 2005):

$$n = \frac{z^2 \cdot p \cdot q}{d^2}$$

Figure 1. Sample Size Formula

Information:

- n : Number of samples
- p : Population proportion estimator
- q : 1 - p (0.5)
- z : Normal curve price, depending on alpha (1.96)
- d : Limit of error, the smaller d is the more thorough the researcher (0.01)

Based on calculations using the formula above, it is known that the minimum number of samples in this study was 96 participants. In the process of collecting research data, 117 student respondents were obtained.

#### 4.3. Data collection technique



This study applied two scales: the verbal aggression scale and the intensity scale for playing online games with a Likert scale type. The first scale is the verbal aggression scale adapted from Raharjo, Saragih, and Haque (2024) which is based on the six aspects of verbal aggression proposed by Anderson and Huesmann (2003). This scale consists of 24 items which are divided into 12 favorable items and 12 unfavorable items. The second scale is the intensity scale for playing online games. This scale was adapted from Nugroho (2020) based on two aspects proposed by Horrigan (2000). The intensity scale for playing online games consists of 23 items which are divided into 18 favorable items and 5 unfavorable items.

The validity of the verbal aggression scale on 24 items shows that the coefficient value moved from 0.356 to 0.779, meaning  $\geq 0.30$ . The correlation coefficient value on the verbal aggression scale was  $0.955 \geq 0.90$ . Based on the values obtained, it can be concluded that this scale is considered feasible and very reliable for use. The validity of the intensity scale for playing online games shows that the coefficient value moves from 0.302 to 0.738, meaning  $\geq 0.30$ . Meanwhile, the correlation coefficient value on the online game-playing intensity scale was  $0.918 \geq 0.90$ . It can be seen that the playing intensity scale is considered feasible and very reliable for use in this research.

#### 4.4. Data analysis technique

The data analysis techniques used in this research consist of classical assumption analysis and hypothesis analysis. Analysis of classic assumptions carried out in this research, namely normality test, linearity test, heteroscedasticity test, and autocorrelation test. The hypothesis analysis used is simple regression analysis with a significance level of 0.05, which means if the significance value is  $> 0.05$  then  $H_0$  is accepted and  $H_a$  is not accepted.

### 5. Results and Discussion

#### 5.1. Description of Research Respondents

The participants in this study were 117 junior high school (SMP) students in grades VII-IX at SMP Negeri 10 Makassar. The Table 5 is a descriptive description of the respondents in this study.

**Table 5.** Distribution of respondents based on age

Demographic Data	Categories	Respondents	Percentages
Age	11 Years Old	2	1,7 %
	12 Years Old	20	17,1%
	13 Years Old	25	21,4%
	14 Years Old	49	41,9%
	15 Years Old	21	17,9%
<b>Total</b>		<b>117 Respondents</b>	<b>100%</b>

Based on the table 5, it can be concluded that the ages of the respondents in this study ranged from 11 to 15 years. In this study, there were 49 respondents (41.9%) dominated by respondents aged 14 years. Meanwhile, the fewest respondents were 11-year-old students as many as 2 respondents (1.7%).

Based on the table 6, it can be concluded that this research was dominated by 78 male respondents (66.67%) and 39 female respondents (33.33%).

Based on the table 7, it can be concluded that this research was dominated by 70 respondents from class IX level (59.8%) and at least 6 respondents from class VIII level (5.1%).

**Table 6.** Distribution of respondents by gender

Demographic Data	Categories	Respondents	Percentages
Gender	Female	39	33,33
	Male	78	66,67
<b>Total</b>		<b>117 Respondents</b>	<b>100%</b>

**Table 7.** Distribution of respondents based on class level

Demographic Data	Categories	Respondents	Percentages
Class level	VII	41	35,04
	VIII	6	5,1
	IX	70	59,8
<b>Total</b>		<b>117 Respondents</b>	<b>100%</b>

### 5.2. Description of Research Data

Descriptive tests of research data are presented by categorizing research variables by referring to the average value and standard deviation. The results of descriptive test processing for each variable in this research are as follows:

#### 5.2.1. Descriptive Data on the Intensity of Playing Online Games

Data on the gaming intensity variable totals 23 items, with a minimum response value of one and a maximum value of four.

**Table 8.** Description of the intensity of playing online games

Variable	Hipotetik			
	Min	Max	Mean	SD
Intensity of playing online games	23	92	57,5	11,5

Based on the descriptive test results in the table 8, the categorization of online game-playing intensity variables is as follows:

**Table 9.** Categorization of hypothetical data on the intensity of playing online games

Category	Criteria	Frequency	Percent
Low	< 46	27	23.08
Medium	46 – 69	87	74.36
High	69 <	3	2.56
<b>Total</b>		<b>117</b>	<b>100.00</b>

In the table 9, it is known that most respondents had a moderate level of playing intensity, 87 subjects (74.36%), 27 subjects (23.08%) were in the low category, and three subjects (2.56%) were in the high category. The results of this data can conclude that junior high school students have a moderate level of intensity in playing online games.

#### 5.2.2. Descriptive Data on Verbal Aggression



Data on the verbal aggression variable totals 24 items, with a minimum response value of one and a maximum value of four.

**Table 10.** Description of verbal aggression

Variable	Hipotetik			
	Min	Max	Mean	SD
Verbal Aggression	24	96	60	12

Based on the results of the descriptive test in the table 10, the categorization of verbal aggression variables is as follows:

**Table 11.** Categorization of hypothetical verbal aggression data

Categories	Criteria	Frequency	Percent
Low	< 48	35	29.91
Medium	48 – 72	81	69.23
High	72 <	1	0.85
<b>Total</b>		<b>117</b>	<b>100.00</b>

In the table 11, it is known that most respondents had a moderate level of verbal aggression, 81 (69.23%), 35 (29.91%) were in the low category, and 1 (0.85%) was in the high category. The results of this data can be concluded that junior high school students have a moderate level of playing intensity.

### 5.2.3. Hypothesis Testing

Hypothesis testing was carried out using SPSS version 24.0 software. The test technique used is a simple regression test to prove the research hypothesis, namely that there is a positive and significant influence between the intensity of playing online games and verbal aggression in students at SMP Negeri 10 Makassar. The output from the hypothesis test can be seen in the table 12.

**Table 12.** Output of Hypothesis Testing

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	2002.55	1	2002.55	25.924	0,000
	Residual	8883.57	115	77.248		
	Total	10886.1	116			

**Table 13.** Coefficient of determination

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	0.429	0.184	0.177	8.78911	1.729

Based on the table 13, it is known that the significant value is  $p = 0.00$  ( $p < 0.05$ ). These results indicate that there is a positive influence of risk-taking on verbal aggression, so the hypothesis in this study is accepted. Furthermore, the value of the coefficient of determination (R

Square) is 0.184 or 18.4%. These results show that the gaming intensity variable has a simultaneous influence on the verbal aggression variable by 18.4%. The remaining influence, namely 81.4%, is influenced by other variables not examined in this research.

## 6. Discussion

Based on the hypothesis testing in this research, several results were obtained that there was a significant influence between the intensity of playing online games on verbal aggression. The obtained values showed that the significance value is  $0.00 < 0.05$ , which indicates that there is an influence on the intensity variable of playing online games with verbal aggression. The contribution of influence given by the intensity variable of playing online games on the subject's verbal aggression was 18.4%. In this research, a positive direction was also obtained, meaning that if students have a high intensity of playing online games, they will also have a high level of verbal aggression. Conversely, if students have a low intensity of playing online games, they will have low verbal aggression.

In research by Putra and Ruli (2021), the results show that individuals who spend a lot of time playing online games are exposed to content containing violence which can trigger aggressive behavior. Verbal aggressive behavior arises because students encounter various obstacles in playing online games, such as poor team performance, finding opponents in online games who beat their team, and the opponent's game is not great. The results of this research are also in line with research by Isnaini, Malfasari, Devita, and Herniyanti (2021) which shows that there is a significant relationship between the intensity of playing the online game PUBG and verbal aggressive behavior of teenagers. Furthermore, it was explained that verbal aggression arises as a result of playing online games repeatedly which causes many obstacles and defeats encountered when playing online games so that it tends to give rise to verbal aggressive behavior.

Febriana (2014) in her study showed that there is influence of the intensity of playing online games on students' aggressiveness, where playing online games causes players to often perform verbal violence in the form of scolding, sarcasm, and swearing at the team or opponents (Almajid, 2019). According to Tobing (Teofanda, 2020) there is a relationship between the intensity of playing online games and emotional symptoms which are the basis for the emergence of aggressive behavior. When playing games, individuals will experience attacks or feelings of frustration due to failing to achieve their goals, which can cause individuals to carry out aggression (Yasa, Andriyani, & Muttaqin, 2017).

From the categorization results, it was found that most verbal aggression was in the medium category at 69.23%, low at 29.91%, and high at 0.85%. This shows that the subject has moderate verbal aggression. In line with Talib's (2010) research, junior high school students' aggressive behavior is in the moderate category with forms of verbal aggressive behavior in the form of shouting, mocking, and harsh words.

Data on the categorization of the intensity of playing online games shows that 87 subjects (74.36%) are in the medium category, 27 subjects (23.08) are in the low category, and three people (2.56%) are in the high category. From these results, it can be concluded that the majority of subjects fall into the medium category. These results are in line with Abidin's (2018) research, the intensity of playing online games in the moderate category shows that the subject can withdraw enough from the world of online games and is quite capable of managing the use of time for playing games.

This research is certainly not free from limitations and various obstacles. The limitations experienced by researchers are that from the data collection process that has been carried out, the information provided by respondents does not reveal their true opinions. This is caused by respondents feeling insecure about the information provided, where respondents feel worried that the information provided to researchers will be reported to the school or parents.

## 7. Conclusion



Based on the results of data tests and discussions carried out in this research, it can be concluded that the intensity of playing online games has a positive and significant influence on the verbal aggression of students at SMP Negeri 10 Makassar. This means that the higher the intensity of playing online games, the higher the level of tendency for verbal aggressive behavior in students and vice versa. The magnitude of the influence of the intensity of playing online games on verbal aggression is 18.4%, while the remaining 81.65 is another factor that was not examined in this study.

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