



## Online Gaming and Social Behavior Among Adolescents: Evidence from Mobile Legends Players in Junior High School

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### Abstract

Mobile Legends is a game that is widely popular among all demographics, particularly teenagers, and can lead to dependency or addiction. The impact of this online game also affects children's academic performance and behavior, potentially leading to social deviance. The purpose of this study is to analyze the influence of Mobile Legends on students' social attitudes. This study is an ex post facto study. The target population consists of all students at SMP Islam Nurul Iman. The sampling technique used was saturation sampling. Data collection methods included observation, questionnaires, and documentation. Data analysis employed simple linear regression using SPSS software. The results revealed a correlation coefficient (R) of 0.429 with an R-squared value (coefficient of determination) of 0.184, indicating that Mobile Legends has an influence on students' social attitudes. Changes in social behavior include rarely socializing with peers, becoming easily emotional toward the surrounding environment, reduced interaction with parents, and decreased study time. Efforts to prevent these impacts can be undertaken by parents, teachers, and the adolescents themselves. These include managing playtime and parental guidance in technology use.

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## 1. Introduction

The development of science and technology in modern times has produced countless technological products. A variety of technological products are intended to meet human needs for education, science, health, or even just entertainment. One of the technology products that is currently most popular among teenagers is *Smartphones*. The presence of gadgets in the form of smartphones has contributed a lot in daily life such as the medium of searching for information, interacting, getting entertainment, even for the purpose of doing business online [1]. Smartphones were created as tools to simplify daily activities. When they first appeared, smartphones were only owned by certain groups of people to make their work easier. However, nowadays many people are competing to own a smartphone. This is because smartphones are not only used as communication tools, but also as tools for creating and entertaining with sound, writing, images, and videos. Smartphones have now become a disaster, when someone uses a smartphone unwisely and uses it for things that are not useful, such as playing games. One of the most dominant uses of smartphones among teenagers is to access various online gaming platforms, such as Mobile Legends: Bang Bang, which offers a virtual world as a means of competition and social interaction. The positive impact of accessing online games is that it improves cognitive abilities, trains communication and teamwork, and trains responsibility, while the negative impact is that teenagers become less social with their surroundings [2]. Video games and online games have become a favorite among all groups because they provide entertainment benefits, making them familiar among students.

Students who used to play traditional games have now switched to electronic games. This change has been driven by the ease of access to technology. In today's era, teenagers are presented with various technological advances that make it easier for them to obtain anything. One of the interesting features that is popular among teenagers and has grown significantly, even providing entertainment in the internet world, is online gaming. These electronic games can also be played outdoors or indoors, so there is no need to leave the house to play them. There are many types of electronic games supported by network systems such as X-Box, Nintendo, Playstation, and PC games. There are also games with different locations and very long ranges, such as online games.

*Mobile Legends* is a MOBA-type mobile device game developed and published by Moonton. This game genre is MOBA, designed for smartphone users with an additional virtual pad. This multiplayer online battle arena MOBA game (Mobile Legend Bang Bang) is in the popular category and was once ranked first in the Play Store. *Game Mobile Legend* is one of many *game online* which from time to time is getting faster in the current era of globalization. Play *game online* It can be done on a computer or smartphone by connecting to an internet network. The presence of the internet itself has changed the culture of society as a whole but has also had a strong influence on how individuals relate to themselves and others. Impact *game online* It can affect children's achievements and behaviors leading to social deviant behavior. Many children who like to play games experience a decline in achievement, experience problems with their personality, suffer from mental disorders, and even fall into inappropriate behavior. Problems arising from excessive online gaming activities include lack of attention to social activities, loss of control over time, decreased academic achievement, social relationships, finances, health, and other important life functions [3].

Several studies were conducted previously, one of the studies conducted by Marshanda Claudia Paresmara (2021) stated that there are positive and negative impacts, the positive impact of literate children on technological progress, children understand various applications, one of which is *game online*, and the child adds knowledge of new vocabulary in a foreign language. The negative impact of *game online* children's emotional and social development include children who are easily angry, more aggressive, and lack of interaction with the people around them. The results of research conducted by Hasan (2023) show that the negative impact is greater than the positive impact. This impact can be seen from the behavior of teenagers who often play *game online Mobile Legends dan* Covers social and psychological aspects [4]. The impact of addiction *game online* covering five aspects, including health aspects, psychological aspects, academic aspects, social aspects, and financial aspects [5]. The negative effect of excessive online gaming is that students lack character, in this case, poor discipline in lectures due to addiction to online games [6].

Social attitude is an expression or action of a person in responding to something in social life. According to Ida bagus Made Astawa, the attitude itself is not innate from birth, but is learned in its development There are subjects and objects in social attitudes. A person's attitude is always related to social life, because with social interaction, the person's attitude will be seen. Social attitudes develop in a social group that are expressed in the same way and carried out over and over again.

Social attitudes can be divided into two, namely: 1) positive attitudes such as cooperation, solidarity, tolerance, 2) negative attitudes; selfishness, social prejudice, and racism.

Initial observations conducted on students at Nurul Iman Junior High School show that many students use their smartphones to play Mobile Legends. Students who play games are more likely to be less sociable with their peers because they have their own lives to entertain themselves (playing games), but there are also many who enjoy socializing. This antisocial behavior is a tangible effect of online gaming addiction, resulting from the internalization of values and communication habits learned in the digital space into their daily social lives, creating an irony in which a tool designed to connect people has the potential to separate individuals from their social environment. Anti-social behavior and decreased social interaction are caused by the amount of time spent playing games, which takes up a lot of the user's attention [7]. Students' social attitudes, such as seeking attention when a teacher is present, and indifference to their surroundings, have also been observed. Some students also behave rudely towards their friends, and in more severe cases, they may even lie. The psychological impact of online games on children is that they have the potential to develop an attitude of defiance towards their parents due to the many scenes in online games that depict criminal acts and violence, which have indirectly influenced the subconscious of adolescents [8]. Based on this description, it is necessary to analyze the phenomenon of *online games* and their impact on students' social attitudes.

## 2. Method

This study is an ex post facto study. As a research method, ex post facto refers to the treatment or manipulation of independent variables that has already occurred, so that the researcher does not need to administer the treatment again; instead, they simply observe its effects on the dependent variables. This study will examine the influence of the independent variable, namely the mobile game "Legend of Mobile" (stimulus, organism, response), and one dependent variable, namely the social attitudes (openness, empathy, equality, self-concept) of students at Nurul Iman Islamic Junior High School. The population in this study includes the target population, namely all students at Nurul Iman Islamic Junior High School. The sampling technique used is saturation sampling. The data sources used are primary and secondary; data is obtained through several data collection techniques, including questionnaires. To determine the validity and reliability of the instruments, validity and reliability tests must be conducted. Data collection techniques include observation, questionnaires, and documentation. The data analysis method used is simple linear regression using SPSS software.

## 3. Results

To find out the influence of the Mobile Legend online game on students' social attitudes, the results of the assessment description from the respondents are presented as follows:

### 3.1 Influence of Mobile Legend Game (X1)

From the results of the distribution of a questionnaire on the Influence of Mobile Legend Online Games, answers were obtained from the respondents presented in table 1.

Table 1. The Influence of Mobile Online Games

No	Description	Answer					Percentage				
		STS	TS	CS	S	SS	STS	TS	CS	S	SS
1	X1.1	1	4	8	12	11	2.7%	11.1%	22.2%	33.3%	30.5%
2	X1.2	2	4	10	13	7	5.5%	11.1%	27.7%	36.1%	19.4%
3	X1.3	2	1	14	12	8	5.5%	2.7%	38.8%	33.3%	22.2%
4	X1.4	2	4	20	9	1	5.5%	11.1%	55.5%	25%	2.7%
5	X1.5	2	3	18	8	5	5.5%	8.3%	50%	22.2%	13.8%

Based on the table above, it can be seen that 11 respondents or 30.5% stated that they agreed to become addicted after playing mobile legend online games. 13 respondents or 36.1% stated that they agreed that they prefer to play mobile legend online games rather than do assignments. 13 respondents or 36.1% agreed that the mobile legend online game is an interesting game. 12 respondents or 33.3% stated that they agreed to play the Mobile Legend game every day. 20 respondents or 55.5% stated that they agreed that they were quite satisfied with knowing the skins in the mobile legend online game.

### 3.2 Social Attitude Variable (Y)

From the results of the distribution of the questionnaire on social attitudes, answers were obtained from the respondents presented in table 2.

**Table 2. Social Attitudes**

No	Descripti on	Answer					Percentage				
		STS	TS	CS	S	SS	STS	TS	CS	S	SS
1	Y1.1	0	4	17	13	2	0.0%	11.1%	47.2%	36.1%	5.5%
2	Y1.2	0	2	18	13	3	0.0%	5.5%	50.0%	36.1%	8.3%
3	Y1.3	0	4	19	11	2	0.0%	11.1%	52.7%	30.5%	5.5%
4	Y1.4	0	6	18	10	2	0.0%	16.6%	50.0%	27.7%	5.5%
5	Y1.5	2	8	23	3	0	5.5%	22.2%	63.8%	8.3%	0.0%
6	Y1.6	3	10	11	12	0	8.3%	27.7%	30.5%	33.3%	0.0%
7	Y1.7	2	9	18	7	0	5.5%	25.0%	50.0%	19.4%	0.0%
<b>Mean</b>							2.7%	17.0%	49.1%	27.3%	3.5%

Based on the table above, it is known that 17 respondents or 47.2% stated that they agree quite well After playing mobile legend online games, I prefer my own activities to with friends. 13 respondents or 36.1% said they agreed after playing the mobile legend online game to respond to other people's questions. 19 respondents or 52.7% said they agreed quite after playing mobile legend online games, I didn't want to give help to people I didn't know. 18 respondents or 50% said they agreed quite after playing the mobile legend online game, I took the time to visit a friend who was sick. 23 respondents or 63.8% agreed After playing the mobile legend online game, I felt comfortable with the presence of friends near me. 11 respondents or 30.5% said they agreed after playing mobile online games.

### 3.3 The Influence of Mobile Legend on Social Attitudes

The following are the results of the regression test used to predict the dependent variable Y (Social Attitude) based on the independent variable X (Influence of Mobile Legend Online Game) in a linear equation in Table 3.

**Table 3. Regression Test of Mobile Legend's Influence on Social Attitude**

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.429 <sup>a</sup>	.184	.160	3.13371

Based on the results of simple linear regression analysis, the correlation coefficient (R) value for one model was obtained, namely R = 0.429 with R Square, which is the coefficient of determination of 0.184, meaning that variable X (Mobile Legend) influences variable Y (social attitude). The effect of Mobile Legend on social attitudes is obtained from the calculated F (7.649) > F Tabel (2:50:0,05), which is 3.259, so Ho is rejected. Thus, the accepted hypothesis is Ha, which states that variable X has an effect on Y (online games affect the social attitudes of students at Nurul Iman Islamic Junior High School), simultaneously affecting.

## 4. Discussion

Mobile legend is one of the favorite online games where many people can play at the same time through online communication networks or the internet. This game can be played in groups or individually to win the challenges in the game. This game can be played in a group to win the challenges in the game. In playing this game, users can spend a minimum of 20 minutes to 30 minutes in one match. One of the factors that makes this game always increase in users is that the game game always updates their appearance and adds new heroes, which makes users not feel bored on the contrary, game users will play this game more often to get the heroes they want. MLBB integrates AI for various important features, such as a matchmaking system that pairs players with opponents of equal skill, as well as data analysis for hero balancing to keep the game fair and

dynamic. In fact, supporting ecosystems such as digital wallets facilitate microtransactions for in-game item purchases, integrating MLBB into the broader digital economy.

The main purpose of creating online games is as a medium to relieve stress. However, online games have caused addiction in almost all users. This addiction or dependence on online games occurs because they are played continuously and intensely, which affects students' attitudes. These changes in attitude are evident in the unstable emotions of teenagers, such as using harsh language, explosive emotions, fighting, inability to communicate well, hitting objects around them, committing violence, shouting at people around them, being overly emotional, and feeling annoyed when they lose [9]. Online games also have a negative impact on social behavior, including apathy, indifference or disregard for others, engaging in unproductive activities, and becoming accustomed to using harsh language in daily life. A study shows that nearly half of teenage respondents (47.05%) feel that playing MLBB makes them use foul language more often, both when interacting in the game and in everyday conversations with friends or family [10]. This phenomenon is exacerbated by the toxic culture that is deeply rooted in this competitive gaming community, where insults, cursing, and verbal intimidation are part of the daily routine for players. The influence of changes in social behavior makes students indifferent and less concerned about what is happening in their surroundings. Research conducted by Fauziah (2013) found that changes in social behavior can make students indifferent and less concerned about what is happening in their surroundings. Online games can influence changes in the social behavior of adolescents if they are used at a high intensity, causing users to become addicted [11].

In the context of Mobile Legends, adolescents discover a new space to explore their identities. They can construct a self-image through avatars, usernames, ranks, and recognition from the gaming community. Research by Meilando and Eceh Trisna Ayuh (2025) in Pasar Talo Village found that symbolic interactions in Mobile Legends play a significant role in the formation of adolescents' self-identity. Within the framework of George Herbert Mead's theory of symbolic interactionism that they employed, adolescents' thought processes (mind) are influenced by in-game interactions, through which they learn to understand others' perspectives. The use of avatars that reflect their personalities allows adolescents to express themselves and build a positive self-image (self) [12]. From the perspective of Erik Erikson's psychosocial development theory, the study by Rustina, Suparjan, & Saputra (2025) confirms that findings regarding the impact of online gaming on social skills support Erikson's psychosocial development theory [13].

The impact of continuous exposure to this unhealthy communication environment significantly affects how teenagers interact in the real world. Online games can reduce positive activities that children can engage in during their developmental years. Someone who is addicted to online games can have their study time affected, as well as their ability to adapt within their social circle [14]. Playing games also affects students' empathy, where after playing the online game Mobile Legends, students are unwilling to help people they do not know. The reproductive component of Bandura's theory explains how observed behavior is subsequently imitated by individuals. Research shows that aggressive and toxic behaviors commonly found in Mobile Legends tend to be replicated by adolescents in their daily social interactions. Toxic behaviors such as trash talk, taunting, and expressions of anger following a loss become internalized patterns that are reenacted in other social contexts [15]. Even students who play Mobile Legends intensively spend more time playing the game than spending time with their families. Some gamers feel they find their true selves when playing online games through emotional attachment in the creation of avatars, which causes them to immerse themselves in the fantasy world they have created, resulting in reduced interaction with the real world [5].

The extraordinary popularity of MLBB among Indonesian teenagers cannot be denied, but behind its popularity, this game has the potential to shape behavior that is contradictory to the essence of socialization itself. Based on the results of information examination and speculation testing, students who play the Mobile Legend online game explain that the game is interesting, exciting, and intriguing, so they play it every day. They tend to lose interest in doing other things or activities that are clearly more beneficial and have a positive impact. They even feel anxious and restless when they do not play online games [16]. Students spend more time playing Mobile Legend online games than gathering with their families. Many students even prefer playing games over doing their homework. A significant amount of time is spent playing games, leading to late nights, which affects their study time. Playing games also affects students' empathy, such as not wanting to help people they don't know. In everyday life, antisocial behavior can manifest in various ways, such as frequently using harsh language or insulting others, being reluctant to engage in conversation or social activities, displaying physical or verbal aggression when feeling disturbed, and deliberately

ignoring the presence or feelings of those around them. These behavioral changes are not noticed by the students themselves but can be felt by their parents, teachers, and friends.

Mobile Legend players, parents, and teachers need to anticipate these changes in attitude. Parents play a very important role in supervising and guiding their children in their activities so that their daily activities are considered good, sufficient, not excessive, or reasonable. Parents also need to reprimand children who go too far while playing so that children learn that every action has consequences. Kurniawan's 2021 research findings explain that parents can play a role in providing support and facilitating the formation of online gaming addiction behavior [17]. Teachers also play a role in guiding students in shaping their morals and character and in developing students who are responsible in using digital devices. This is because playing Mobile Legends online games has a negative impact on the emotional attitudes of students, namely their inability to control their behavior [18].

However, for teenagers who are already addicted to Mobile Legends, recovery measures are necessary. The recovery process must begin by helping addicts realize that everything they strive for in online games is futile and very damaging to themselves [19]. Additionally, the Rational Emotive Behavior Therapy (REBT) approach is also effective in helping teenagers replace irrational beliefs with more adaptive ones, enabling them to manage their emotions and develop healthier alternative activities [20]. Other approaches such as Cognitive Behavioral Therapy (CBT), which aims to identify and change maladaptive thinking patterns and compulsive behaviors related to gaming, can also be applied by involving family support and self-monitoring [21]. An effective recovery process requires synergy between individual therapy, family support, and social reintegration, all of which must be tailored to the needs of the adolescent and their family.

From the perspective of Bandura's theory, Mobile Legends serves as a new agent of socialization that has a significant influence on the formation of adolescents' social behavior. The process of social learning through observation and imitation of in-game models, combined with a strong reinforcement system, can shift behavioral patterns previously acquired from family and school. This underscores the importance of intervention by parents and educators to guide adolescents in selecting appropriate behavioral models and regulating the intensity of their exposure to game content.

## 5. Conclusion

Research on the impact of Mobile Legends on adolescents' social attitudes is a critically important study in today's digital age. By understanding the complexity of this influence through various theoretical perspectives, we can formulate appropriate strategies to maximize the positive benefits and minimize the negative impacts of online gaming. The negative impacts of Mobile Legends can influence changes in adolescents' social behavior due to the high intensity of gameplay, which leads to addiction among users and, consequently, unknowingly affects their social behavior. Changes in social behavior include rarely socializing with peers, feeling emotionally detached from the surrounding environment, reduced interaction with parents, decreased study time, and disrupted social relationships due to the influence of online games. Therefore, efforts are needed to help adolescents avoid addiction to the online game Mobile Legends by utilizing the game to develop social skills. Parents also need to monitor playtime, guide, and accompany their children in using technology, ensuring that the games have a positive impact. Teachers play a role similar to that of parents when children are at school, guiding them in the use and application of smartphones. The limitations of this study do not diminish its value but rather open opportunities for future research to refine and expand upon these findings.

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