

# Online Game Addiction on High School Student in Central Java

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## ONLINE GAME ADDICTION ON HIGH SCHOOL STUDENT IN CENTRAL JAVA

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### ABSTRACT

Online game addiction is a maladaptive psychological state that depends on online gaming which is manifested through obsessive-compulsive patterns of seeking and using behavior at the expense of other important activities. This study aims to determine the prevalence and risk factors for the level of use of online games owned by high school students. This study used a quantitative method with a cross-sectional design. A total of 673 high school students were selected using cluster sampling technique. The research data were taken using the online game addiction psychological scale instrument. The results showed that the average level of online game addiction owned by students was in the medium category. Gender did not have a strong correlation with high online game addiction, while age did not have a correlation with the high level of online game addiction that students had. Therefore, there is a need for both preventive and curative counseling services that can help students formulate more potential activities in supporting students' academic and social development.

**Keywords:** Online game addiction, prevalence, high school.

### INTRODUCTION

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Games are part of human history. Playing games is a fun and entertaining activity that is used as a way of relaxation to get out of your daily routine and enjoy something different from everyday life. In the past, children often interacted with friends and peers in open spaces, but due to progress technology, games are now played on computers, online virtually (Horzum et al. 2008; Gullu et al. 2012). The results of the study show that the majority of activities carried out by adolescents via the internet are playing games, the rest is done by internet users using social media, streaming videos, browsing, to shopping online (Yosephine, Lesmana, 2020). According to Statista Primary Research (2020), which is a global survey institution, it is estimated that the number of online game users will reach 1,076.4 billion people by 2025 worldwide. Meanwhile, Pokkt, Decision Lab and Mobile Marketing Association (MMA) which conducted studies related to games in Indonesia said the number of mobile gamers in Indonesia reached 60 million and was dominated by teenagers. This number is expected to increase to 100 million by 2020. Based on the data above, it can be concluded that online games are a form of electronic entertainment that is very popular among teenagers.

Adolescents have a great interest in playing, playing is an important element in life both for their physical, cognitive, emotional, mental, intellectual and social development (Soetjningsih, 2012). Most of the studies examining cognitive skills show that playing games has a positive impact on how learners build mental schemes. Games can help students in cognitive skills such as problem solving, visualizing concepts, and building relationships (Gee, 2003; Kaufman & Sauv , 2011). Therefore, games allow students to integrate new material and new concepts in a more intuitive way and also help students organize previously acquired information in a more comprehensive way.

However, when individuals cannot play online games wisely so that they are unable to control their constant and excessive involvement in front of a computer or game, they will have the potential to experience online game addiction (Muller et al., 2014). Online game addiction is defined as a psychological state. maladaptive reliance on online gaming is manifested through obsessive-compulsive patterns of seeking and using behavior at the expense of other important activities (Xu, Turel & Yuan, 2012).

Delbrafo and Griffiths (2019) state that adolescents are said to be addicted if they spend 35 hours per week playing online games, meaning that a day spends 5 hours playing games. The American Psychology Association confirms that the use of online games, social networking, or the internet outside of the study work requirements for more than 5 hours per day and is done continuously is said to be addicted.

Online game addiction will cause various negative effects on students, such as an increased risk of mood disorders, damaged social relationships, aggressiveness, personality changes, high and hyperactive anxiety levels, psychomotor disorders, health problems, antisocial behavior, academic decline, and damage to interpersonal relationships (McCauley Ohannessian 2018; Karaca et al., 2020).

Given the large negative impact that students can have if they experience online game addiction, it is not directly proportional to the identification efforts made by education practitioners in schools, especially school counselors. Therefore, it is necessary to do early identification as a means to identify the disturbances that can hinder the development of student learning in schools. This study aims to determine the prevalence of online game addiction that students have in secondary education in terms of gender and age. Supporting factors that can increase online game addiction in students will be explained further in the discussion section.

## LITERATURE REVIEW

Online game addiction is defined as a maladaptive psychological state that depends on online gaming which is manifested through obsessive compulsive patterns of seeking and using behavior at the expense of other important activities. Although not all online games are addictive or dangerous, some games, including multiplayer online games (MOBA), are more rapidly addictive due to their interactive, collaborative and competitive nature (Liu & Peng, 2009; Barnett & Coulson, 2010). These features provide social aspects that may be missing from offline activities, and make it difficult to stop playing (Young, 2010). Thus Bruner (in Xu, 2012) explains that excessive use of online video games and addiction has become commonplace, and can cause a lot of negative psychological and physical harm, including social isolation, suicide, lack of sleep, hypertension, and death) and has become a common phenomenon among adolescents.

## METHOD

This study is an observational study with a survey research design that aims to determine the prevalence and relationship of risk factors for excessive use of online games among high school students. A total of 673 high school students were selected as respondents through cluster sampling technique. Data were collected using the Game Online Addiction instrument (Lemmens, Valkenburg, Peter, 2009). This instrument is structured based on seven aspects, namely salience, tolerance, mood modification, withdrawal, relapse, conflict, problems. This online game addict behavior scale consists of 21 questions with the example item "are you playing the game longer than you should?". The scoring method on this measuring instrument uses a Likert scale with a range of answer choices from 1 to 5, from "very suitable" to "very

inappropriate". The data collected were analyzed descriptively to determine the prevalence of the level of tendency of online game addiction owned by students and the chi-square test to determine the relationship between the level of online game addiction, gender, and age.

## RESULTS

Based on the demographic data described in table 1, it can be seen that the total respondents in this study were 673 students, 192 (28.5%) were male and 481 (71.5%) were female. In addition, the ages of students who were respondents in this study were divided into three age levels, 266 (39.6%) students aged 17 years, 326 (48.4%) students aged 16 years, and 81 (12%) students aged 15 years, with an average -The mean age of the respondents in this study was  $\pm$  16 years. After analyzing the level of online game addiction owned by all respondents, it can be seen that the average respondent is in the medium category ( $M = 53$ ), with a standard deviation of 20.35.

Table 1. Frequency of PIU Levels of High School Students Based on Gender and Age

		Range of Game Online Addiction				Total	Percent
		Low	Middle	High	Very High		
Gender	L	41	67	36	48	192	28.5%
	P	232	143	35	71	481	71.5%
Total		273	210	71	119	673	
Age	15	32	21	14	14	81	12%
	16	145	106	29	46	326	48.4%
	17	96	82	28	60	266	39.6%
Total		273	209	71	120	673	
		Max	Min	SD	M		
GOA		105	21	20.35	53		

After knowing the prevalence of online game addiction levels that students have. The next analysis is to examine the relationship of each category with online game addiction. Based on the results of the chi-square test in table 2 below, it can be seen that gender is not related to the level of online game addiction that students have ( $t = 7.36$ ,  $p > 0.05$ ). The results of statistical tests show that both men and women have the same opportunity to experience online game addiction. Different results are shown by other categories, where the age category is related to the level of online game addiction that students have ( $t = 12.431$  and  $p < 0.05$ ). This can be seen in the following table:

Table 2. Chi-Square Test Results for Gender, Age and Level of Online Game Addiction

	t	df	p
Sex*GOA	7.366	9	0.367
Age*GOA	12.431	7	0.001

Referring to these results, it can be interpreted that the increasing age of students, the level of online game addiction that students have tends to get bigger. In other words, getting older has a greater potential to experience online game addiction.

## DISCUSSION

The results of the study confirm that the increasing age of students, the level of online game addiction that students have tends to get bigger. Therefore, increasing age has a greater

potential to experience online game addiction. This is in line with research conducted by Greenberg et al (2010) which examined gender and age differences in relation to video game activity in adolescents and found that boys and girls were equally motivated to engage in gaming. Homer et al (2012) assert that, for both boys and girls, the amount of time spent playing games increases with age in adolescence, reflecting the increase in autonomy that occurs during this age period.

This can of course also not be separated from various things such as online game addiction is also associated with an increase in symptoms of stress, anxiety, and depression (Hetland & Pallesen, 2011). When an individual is experiencing increased symptoms of stress or anxiety, games are often described as a form of maladaptive coping and also as a means of "escape" to avoid stress or anxiety. This is evidenced by research conducted by Loton et al (2016) which states that coping can be a mediator between online game addiction and anxiety and depression. This shows that individuals use games as a destructive activity to escape problems and anxiety.

In addition, the large number of cases of online game addiction that occur in adolescents is clear evidence of the lack of understanding of teenagers about the risks of online game addiction that should be obtained from their parents. Parents don't just provide easy access to technology. However, it must also instill a good understanding so that access to technology is not excessive. The results showed that individuals who had easier access to online games tended to play longer and with a more frequent frequency (King & Delfabbro, 2018).

Parents play an important role in reducing game addiction. Parent-child closeness, warm family environment, communication, or conversation between parent and child and perceived family harmony are all associated with lower levels of game addiction (Choo et al, 2015; Liao et al, 2015). In addition, parental mediation, a strategy used by parents to mediate and reduce the negative effects of media on children can influence addictive behavior.

## CONCLUSION

Online game addiction in high school students in this study is included in the medium category. This means that the majority of students have a tendency to online games. Therefore, school educators and counselors must be aware of the negative effects caused by online gaming, because this is a common phenomenon today. Therefore, there is a need for counseling services that can help students and parents formulate appropriate actions for online gaming problems.

The results of this study must be seen from its limitations. First, this study is a cross-sectional study. Thus, this study cannot determine the causal relationship between the research variables. Future studies should adopt experimental designs to establish causal relationships between variables, or longitudinal designs to examine prospective relationships between variables. As previous research has shown, the link between online game addiction and mental health problems may be reciprocal. Second, the sample is a homogeneous group of high school students in Central Java. Whether the results can be generalized to all adolescents is a question for future research.

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