# Online Game Addiction in Adolescents

Andhiny Febryani Lona<sup>1</sup>, Diana Aipipidely<sup>2</sup>, Dian Lestari Anakaka<sup>3</sup>

1,2,3 Psychology Department, Public Health Faculty, Nusa Cendana University e-mail: <a href="mailto:1andhinylona12.al@gmail.com">1andhinylona12.al@gmail.com</a>, <a href="mailto:2dianaaipipidely15@gmail.com">2dianaaipipidely15@gmail.com</a>, <a href="mailto:3dian.anakaka@staf.undana.ac.id">3dian.anakaka@staf.undana.ac.id</a>

Abstract. Online gaming addiction is a disorder caused by excessive gaming habits. Addiction can harm a person's psychological health. Addicted online gamers can do harmful things, such as being aggressive, saying dirty or rude words, abandoning essential activities, and changing their eating and sleeping patterns. Someone addicted to online games ultimately does not care about the surrounding environment because they tend to be absorbed in their world. This study aims to determine the description of online game addiction in adolescents at SMK Negeri 1 Kupang. This type of research is descriptive quantitative. Respondents in this study were 241 students aged 15-18 years old. The results of the data analysis showed that 51% of students experienced addiction.

**Keywords:** online game addiction, adolescents, students

Abstrak. Kecanduan game online merupakan gangguan yang disebabkan oleh kebiasaan bermain game secara berlebihan. Kecanduan dapat menimbulkan dampak yang buruk bagi kesehatan psikologis seseorang. Pemain game online yang telah kecanduan dapat melakukan hal-hal negatif, seperti bersikap agresif, berkata kotor atau kasar, meninggalkan kegiatan yang penting, serta perubahan pola makan dan tidur. Seseorang yang kecanduan game online pada akhirnya tidak peduli dengan lingkungan sekitarnya karena cenderung asik dengan dunianya sendiri. Penelitian ini bertujuan untuk mengetahui gambaran kecanduan game online pada remaja di SMK Negeri 1 Kupang. Jenis penelitian ini adalah kuantitatif deskriptif. Responden dalam penelitian ini sebanyak 241 siswa berusia 15-18 tahun. Hasil analisis data menunjukkan bahwa terdapat 51% siswa mengalami kecanduan.

Kata kunci: kecanduan game online, remaja, siswa

Article history:
Received 11 April 2023
Received in revised form 12 December 2023
Accepted 13 December 2023
Available online 21 December 2023

## Introduction

Young (2009) stated that an online game is a site with various types of games that involve many internet users in different places to connect simultaneously through the internet network. Online games can be played through any media, such as personal computers (PCs), smartphones, and consoles (Király et al., 2014). According to Young (2009), online games have various types, such as adventure games, strategy arrangement, simulation, and role-playing with specific rules and levels. Ariantoro (2016) explains that the negative impact of online games can cause addiction.

Yee (2002) indicated that online gaming addiction is an impulsive control disorder with excessive and abnormal use of online games. Online gaming addiction is a behavioural problem that can be seen as a loss of control, increased conflict, preoccupation with gaming, gaming for coping or mood modification purposes, and withdrawal symptoms if the player is forced to stop (Van Rooij, 2011). The World Health Organization (WHO) has established online game addiction in the latest version of the International Statistical Classification of Diseases (ICD) as a mental disorder.

A survey that was conducted in 2020 showed that 14.4 per cent of young adults and more than 19 per cent of adolescents were addicted to the Internet (Tim CNN, 2021). Adolescents are more susceptible to online gaming addiction than adults. Adolescence is a period of instability, making it easier for them to be drawn into trying new things (Jordan & Andersen, 2017). Dr. DAP. Shinta Widari, SPKJ, Mars, revealed that some adolescents in Kupang City have experienced online game addiction. Based on parents' statements, their children become delinquents and rebels, have decreased academic performance, and tend to skip school because they often play online games (Medikastar, 2019).

Playing online games can provide a sense of satisfaction to individuals so that they repeat unhealthy activities. Such behaviour can be harmful to the individual. Based on the problems described above, the author wants to conduct a study titled "Online Game Addiction in Adolescents at SMK Negeri 1 Kupang".

#### Method

This type of research is quantitative descriptive. The sampling in this research used a purposive sampling technique. The sample was 241 students at SMK Negeri 1 Kupang. The data collection technique used in this study is the scalefilling method. Data collection in a scale is done by giving respondents a set of questions or written statements to answer. The scale will be given as a questionnaire and distributed to respondents. The instrument in this study was the Online Game Addiction Scale by Lemmens et al. (2009). The online game addiction scale consists of 21 items from the following seven criteria: (1) Salience, (2) Tolerance, (3) Mood Modification, (4) Relapse, (5) Withdrawal, (6) Conflict, and (7) Problem. For the online game addiction measuring instrument, we translated it into Indonesian with the help of experts, lecturers, and alums. Based on the data validity test results, the r-table value is 5% with several respondents, as many as 100 people, and the r-table in this study is 0.195. The validity test results on the online game addiction scale with 21 items were said to be valid. The results of the reliability test of the online game addiction scale using the Cronbach's Alpha formula in the computerized program obtained a value of 0.909, which is considered reliable. This research used statistical methods of univariate analysis.

The data description on the online game addiction variable consists of 21 items with four alternative answer choices, namely never, rarely, sometimes, often, and very often, and has a score that starts from 1 to 5 so that online game addiction can be expressed with the following criteria:

Score max 
$$= 21 \times 5 = 105$$
Score min 
$$= 21 \times 1 = 21$$
Mean ( $\mu$ ) 
$$= \frac{\text{Score max} + \text{Score min}}{2} = \frac{105 + 21}{2} = 63$$
Standard deviation ( $\sigma$ ) 
$$= \frac{\text{Score max} - \text{Score min}}{6} = \frac{105 - 21}{6} = 14$$

Vol. 5, No. 4, Dec 2023, pp. 456~466

Table 1.

Online Game Addiction Categorization Norms

Formula	Criteria	Interval
x≥µ	Addicted	x≥63
x<μ	Not Addicted	x<63

#### Result

Table 2.

Online Game Addiction Category at SMK Negeri 1 Kupang

	0 3	0 1 0
Category	Frequency	Per cent
Addicted	123	51
Non-addicted	118	49
Total	241	100

Based on Table 2 above, it was found that adolescents at SMK Negeri 1 Kupang experienced addiction with 123 people (51%), while those who were not addicted were 118 people (49%).

Table 3.

Online Game Addiction Category by Age

	Age (years old)				
	15	16	17	18	Total
Addicted	66	46	9	2	123
Non-addicted	78	35	5	0	118
Total	144	81	14	2	241

Based on Table 3 above, the category of online game addiction in respondents aged 15 years old is 66 people, while in the non-addicted category, there are 78 people. The category of online game addiction in respondents aged 16 years old is 46 people, while in the non-addicted category is 35 people. The category of online game addiction among respondents aged 17 years old is nine people, while in the non-addicted category is five people. The category of online game addiction

Vol. 5, No. 4, Dec 2023, pp. 456~466

in respondents aged 18 years old is two people, and there are no respondents who have a non-addicted category.

Table 4.

Online Game Addiction Category by Gender

Catagory	Ge	Total	
Category	Male	Female	Total
Addicted	107	16	123
Non-addicted	106	12	118
Total	213	28	241

Based on Table 4 above, male respondents who have an addiction category are 107 people, while those who have a non-addiction category are 106 people. Female respondents who have the addiction category are 16 people, while those who have the non-addiction category are 12 people.

Table 5.

Online Game Addiction Category by Grade

Catagorius	Grade				
Category	X	XI	XII	Total	
Addicted	73	46	4	123	
Non-addicted	89	27	2	118	
Total	162	73	6	241	

Based on Table 5 above, class X respondents who have an addiction category 73 people while those who have a non-addiction category 89 people. Grade XI respondents who have an addiction category are 46 people, while those who have a non-addiction category are 27 people. Class XII respondents who have an addiction category are four people, while those who have a non-addiction category are two people.

Table 6.

Online Game Addiction Category by Department

Catagogg	Department					Total
Category	MPLB	AKL	Marketing	ULP	TJKT	Total
Addicted	0	4	26	24	69	123
Non-addicted	20	10	0	1	87	118
Total	20	14	26	25	156	241

Based on Table 6 above, respondents in the MPLB (Office Management and Business Services) major who have the addiction category do not exist. In contrast, those who have the non-addiction category are 20 people. Respondents in the AKL (Institutional Financial Accounting) major who have an addiction category are four people, while those who have a non-addiction category are ten people. Respondents in the Marketing department who have the addiction category are 26 people, while those who have the non-addiction category are none. Respondents in the ULP (Tourism Service Business) department who have an addiction category are 24 people, while those who have a non-addiction category are one person. Respondents in the TJKT (Computer Network & Telecommunication Engineering) department who have an addiction category are 69 people, while those who have a non-addiction category are 87 people.

Table 7.

Online Game Addiction Category by Duration of Playing Games

Catagory	Duration of	Total	
Category	< 2 hours/day	> 4 hours/day	
Addicted	37	86	123
Non-addicted	50	68	118
Total	87	154	241

Based on Table 7 above, respondents who have a duration of playing games < 2 hours/day who have an addiction category are 37 people, while those who have a non-addiction category are 50 people. Respondents who have a duration of

playing games  $\geq 4$  hours/day who have an addiction category are 86 people, while those who have a non-addiction category are 68 people.

#### Discussion

Based on the results of statistical tests conducted, it was found that 123 people (51%) were included in the addiction category, while 118 people (49%) were included in the non-addiction category. Based on the results of the analysis seen from the total number of item selections, the most is in item 8, namely "Have you ever played online games to release stress?" which is an item on the salience aspect, one of the addiction criteria that makes online gaming activities the most essential thing in a person's life and is dominating thoughts, feelings, and is an excessive use behaviour. Online games that are played excessively as an excuse for an escape from real-life reality can lead to addiction (Hussain & Griffiths, 2009).

Based on the results of the research, it was found that male respondents tended to be addicted to online games, which was 107 people when compared to female respondents, which was 16 people. This aligns with research conducted by Rangkuti et al. (2021) that shows that males tend to be more addicted to online games than females. According to Mais et al. (2020), males are more likely to play online games because they are more interested in adventure and action-type games, while women are more interested in games with a peaceful and safe atmosphere.

Based on the results of the research, online game addiction is found chiefly in adolescents aged 15 years old. Meanwhile, based on class, online game addiction is more prevalent in class X. At the stage of education, adolescents aged 15 years old occupy the level of high school / vocational high school class X. According to (Kuss & Griffiths (2012), the age of 15-17 years old, adolescents are more interested in playing online games than doing other activities. This can occur because adolescents are in a period of instability. They tend to be more interested in experimenting with new things (Jordan & Andersen, 2017). As a result, adolescents are more prone to online gaming addiction. Online gaming addiction has adverse effects on

adolescents, such as a lack of interest in other, more important activities, decreased academic performance, disrupted social relationships, and physical and psychological health problems (Ghuman & Griffiths, 2012).

Based on the research results, TJKT (Computer Network Engineering and Telecommunications) majors are respondents who have more addiction categories, which is 69 people. At SMK Negeri 1 Kupang, the TJKT (Computer Network Engineering and Telecommunications) department has the most significant number of students, so in this study, most respondents were in the TJKT (Computer Network Engineering and Telecommunications) department. Adolescents who are addicted have the most duration of playing online games for ≥ 4 hours/day, which is 86 people. According to Han et al. (2010), individuals who play online games can be said to be problematic if played for more than 4 hours every day. One of the impacts of playing online games is being unable to control time (Ghuman & Griffiths, 2012). Adolescents who cannot control playing time will forget other essential activities (Young, 2009).

## Conclusion

The results obtained are adolescents at SMK Negeri 1 Kupang experiencing online game addiction, with the majority being male. Based on age, adolescents aged 15 years old tend to be addicted to playing online games. Adolescents who tend to have an addiction category are in the Computer Network Engineering and Telecommunications department. Based on the category of the duration of playing online games, it shows that more adolescents have a duration of playing more than 4 hours every day so that it can be categorized as an addiction.

Suggestion

Participants who have experienced online game addiction consult with a psychologist to overcome the addiction experienced, while those who are not addicted play online games to control playing time so as not to interfere with

Vol. 5, No. 4, Dec 2023, pp. 456~466

activities in real life. Parents, so that parents can supervise and control children in playing online games so that children are not addicted. For institutions, to be able to educate adolescents in scattered schools about the impact of playing online games and ways to avoid addiction. For further researchers, to be able to add other variables as needed that can be associated with Online Game Addiction.

## Reference

- Ariantoro, T. R. (2016). Dampak Game Online Terhadap Prestasi Belajar Pelajar. *Jurnal Teknik Informatika Musirawas*, 1(1), 45–50. https://doi.org/10.32767/JUTIM.V1I1.22
- Ghuman, D., & Griffiths, M. D. (2012). A cross-genre study of online gaming: Player demographics, motivation for play, and social interactions among players. *International Journal of Cyber Behavior*, 2(1), 13–29.
- Han, D. H., Hwang, J. W., & Renshaw, P. F. (2010). Bupropion sustained release treatment decreases craving for video games and cue-induced brain activity in patients with Internet video game addiction. *Experimental and Clinical Psychopharmacology*, 18(4), 297–304. https://doi.org/10.1037/A0020023
- Hussain, Z., & Griffiths, M. D. (2009). Excessive use of massively multi-player online role-playing games: A pilot study. *International Journal of Mental Health and Addiction*, 7(4), 563–571. https://doi.org/10.1007/S11469-009-9202-8
- Jordan, C. J., & Andersen, S. L. (2017). Sensitive periods of substance abuse: Early risk for the transition to dependence. *Developmental Cognitive Neuroscience*, 25, 29–44. https://doi.org/10.1016/J.DCN.2016.10.004
- Király, O., Nagygyörgy, K., Griffiths, M. D., & Demetrovics, Z. (2014). Problematic Online Gaming. *Behavioral Addictions*, 61–97. https://doi.org/10.1016/B978-0-12-407724-9.00004-5
- Kuss, D. J., & Griffiths, M. D. (2012). Internet Gaming Addiction: A Systematic Review of Empirical Research. *International Journal of Mental Health and Addiction*, 10(2), 278–296. https://doi.org/10.1007/S11469-011-9318-5/METRICS
- Lemmens, J., Valkenburg, P. M., & Peter, J. (2009). Development and Validation of a Game Addiction Scale for Adolescents. *Media Psychology*, 12, 77–95.
- Mais, F. R., Rompas, S. S. J., & Gannika, L. (2020). Kecanduan Game Online Dengan Insomnia Pada Remaja. *Jurnal Keperawatan (JKp)*, 8(2), 18–27.
- Medikastar. (2019). *Kecanduan Game, Beberapa Anak di Kupang Terdeteksi Alami Gangguan Jiwa* | *Medika Star.* http://medikastar.com/kecanduan-game-beberapa-anak-di-kupang-terdeteksi-alami-gangguan-jiwa/ tanggal 5 Juli 2022
- Rangkuti, R. P., Nasution, I. K., & Yurliani, R. (2021). Kecenderungan Kecanduan Game Online pada Remaja selama masa Pandemi COVID-19. *Temu Ilmiah Nasional* (*TEMILNAS* XII), 0(0). https://ojs.unm.ac.id/Temilnas/article/view/20039

Vol. 5, No. 4, Dec 2023, pp. 456~466

- Tim CNN. (2021). *Survei: 19,3 Persen Anak Indonesia Kecanduan Internet*. https://www.cnnindonesia.com/gaya-hidup/20211002135419-255-702502/survei-193-persen-anak-indonesia-kecanduan-internet tanggal 13 April 2023
- Van Rooij, A. J. (2011). *Online video game addiction: Exploring a new phenomenon*. https://repub.eur.nl/pub/23381/
- Yee, N. (2002). *Understanding MMORPG addiction*. http://www.nickyee.com/hub/addiction/addiction.pdf
- Young, K. (2009). Understanding Online Gaming Addiction and Treatment Issues for Adolescents. *Https://Doi.Org/10.1080/01926180902942191*, *37*(5), 355–372. https://doi.org/10.1080/01926180902942191