Nosipakabelo: Jurnal Bimbingan Konseling
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Application of Self-Management Techniques in Reducing Online Game Addiction in Adolescents

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Article Information:

Received Oct 15, 2025

Revised Nov 2st, 2025

Accepted Des 09, 2025

Keywords: *Self Management Techniques, Online Game Addiction, Teens*

Abstract

This study aims to determine the effectiveness of applying self-management techniques in reducing online game addiction in adolescents in Tomoli Village, Toribulu District, Parigi Moutong Regency. Theoretically, this research is expected to contribute to the development of science, particularly for students at UIN Datokarama Palu and the Islamic Counselling department. Practically, it will benefit society, adolescents, and parents in dealing with online game addiction so that adolescents can return to living normal lives. The study used a quantitative approach with a nonequivalent control group design, involving 10 adolescents with severe addiction levels based on the Game Addiction Scale for Adolescent (GASA). The sample was divided into a control group (5 adolescents without intervention) and an experimental group (5 adolescents with self-management intervention). Data analysis using SPSS version 27 showed a significant difference between the post-test results of the two groups, so it can be concluded that the self-management technique is effective in reducing online game addiction in adolescents in Tomoli Village.

INTRODUCTION

The development of internet technology in Indonesia has shown rapid growth in the last two decades. According to a report by the Indonesian Internet Service Providers Association (APJII, 2024), over 78 percent of Indonesia's population is connected to the internet, and the majority of active users are teenagers aged 12–24. One of the most popular activities among teenagers is playing online games, such as Mobile Legends, PUBG, Free Fire, Call of Duty, Point Blank, and Higgs Domino. Online games are not only entertainment but also a means of social interaction, competition, and digital identity formation (Kuss & Griffiths, 2017). The increasing involvement of adolescents in online games raises concerns about the emergence of addictive behaviors. Young (2017) refers to online game addiction as part of internet addictive disorder, where players

E-ISSN: 2798-3250
Published by: UIN Datokarama Palu

experience a strong urge to continue playing even tho other activities are disrupted. This condition is triggered by a reward system that provides a short-term sense of pleasure, such as winning or social recognition (Gentile et al., 2011).

According to Hardanti (2019), the main factors causing addiction include the attraction of games that provide instant rewards and the motivation to escape social and academic pressure. Online game addiction can have negative impacts on physical, psychological, and social aspects. Physically, adolescents often experience fatigue, visual disturbances, and irregular sleep patterns (Cheng et al., 2018). Psychologically, there are issues with concentration, increased anxiety, and even depression due to a loss of self-control (Anderson et al., 2022). Socially, addiction hinders interpersonal relationships because more time is spent in the virtual world (Griffiths, 2019). Global data from We Are Social (2023) shows that Indonesia ranks eighth globally in the number of active online gamers, with approximately 10.7 million adolescents aged 12–24. This condition demands effective intervention to reduce addictive behaviors, especially among students who are emotionally and cognitively vulnerable. Various studies have shown that behavioral counseling-based self-management techniques are effective in reducing digital addiction. Based on B. F. Skinner's (1953) theory of operant conditioning, self-management allows individuals to regulate their own behavior thru monitoring, evaluation, and the application of consequences to target behaviors. Komalasari (2019) emphasizes that this technique is capable of increasing self-awareness and individual responsibility in controlling negative habits.

Research by Sari and Nugraha (2021) found that implementing self-management techniques significantly reduced the intensity of social media use among high school students. Similar findings were reported by Alheneidi et al. (2021), who showed that cognitive-behavioral self-management training is effective in reducing digital addiction in adolescents in Kuwait. Ratna (2020) adds that this approach helps individuals direct their thoughts, emotions, and behaviors, thereby improving their ability to control addictive urges.

Additionally, self-management is supported by Cognitive Behavioral Therapy (CBT) theory developed by Meichenbaum (2017), which emphasizes that behavioral change begins with cognitive restructuring of negative beliefs and habits. The CBT approach focuses on improving self-efficacy and self-control, which are key in overcoming addiction (Anderson & Dill, 2020). This phenomenon is also seen in Tomoli Village, Toribulu District, Parigi Moutong Regency. Based on an initial survey, there are 25 teenagers who spend 4–8 hours per day playing online games. Their study activities and rest time were disrupted by this habit. Given this situation, research on the application of self-management techniques becomes relevant to help adolescents control excessive gaming behavior and raise awareness of productive time use.

RESEARCH METHOD

The research design in this research uses nonequivalent control group design. This research has a qualitative type of quasi experimental design research because researchers want to know the addictive behavior of online games in teenagers in Tomoli Village, District. Toribulu District. perigi moutong. With a quasi experimental design that uses control groups and experiments. To determine the sample size, researchers took teenagers addicted to online games who had severe addiction criteria. Adolescents aged (11-19) who are registered as active students. Has moderate, severe and very severe addiction rates based on the results of the GASA-21 addiction scale pre-test screening.Have the willingness to take part in a series of pre-tets research, self-management technique interventions for experimental groups, and post-tests. Of the 25 teenagers selected, the results were obtained by 10 teenagers who met the criteria to be in the research sample.

This research was conducted in Tomoli Village, District. Toribulu District. Paris Moutong. As for Research Instruments in Quantitative Research; Questionnaires or questionnaires are also used as instruments in quantitative research. This instrument contains a series of questions used to

collect data from respondents. And data analysis techniques in quantitative research are methods of analyzing research data after collecting data from all respondents, namely Validity, Reality Tests, Descriptive Statistical Tests, Normality Tests, Homogeneity Tests and Hypotheses.

DISCUSSION

Research Results

Validity Test Results

The validity test determines the validity of the measuring instrument. The measuring instruments referred to here are the questions in the questionnaire. Done with computer SPSS version 27 (Static Peckagefor Social Science). Validity test of assessment criteria. Namely, if R > is greater than R table (at the significance level α = 0.005), then it is said that the questionnaire is valid. If R count < is smaller than R table (at the significance level α = 0.005), then it is said that the questionnaire is invalid.

Reliability Test Results in the table below:

Table 1. Reliability Test Results

Reliability Statistics

Cronbach's Alpha	N of Items
,895	21

Source: Output SPSS 27 Statistics, 2025.

From the reliability test, a cronbach's alpha value of α = 0.895 > 0.60 was found which was calculated using SPSS software. So the analysis of the data can be concluded that the items in the stress subscale statement are declared reliable..

Table 2. Mean and standard Deviation

Statistics

		pre-test A	pre-test B	post-test A	post-test B
N	Valid	5	5	5	5
	Missing	0	0	0	0
Mean		66,40	59,80	66,40	46,80
Median		67,00	62,00	67,00	45,00
Std. Deviation		10,164	12,153	10,164	10,085
Minimum		53	45	53	36
Maximum		78	76	78	60

Source: Output SPSS 27 Statistics, 2025.

Based on the findings from the SPSS-based descriptive statistical test version 27 against pre-tests and post-tests A (control) and B (experiment) that the mean of the pre-test in group A (control) was 66.40 with a standard deviation of 10.164, and the mean value of the post-test group B (experiment) fell to 46.80 with a standard deviation of 10.085. This indicates a decrease in addiction scores after the intervention of the self mangament technique.

Meanwhile, in group A (control), the mean value of the pre-test was 66.40 with a standard deviation of 10.164, and the mean value of the post-test showed that it was the same as 66.40 with a standard deviation of 10.164. This shows that the score in group A (control) was not given self-management technique intervention.

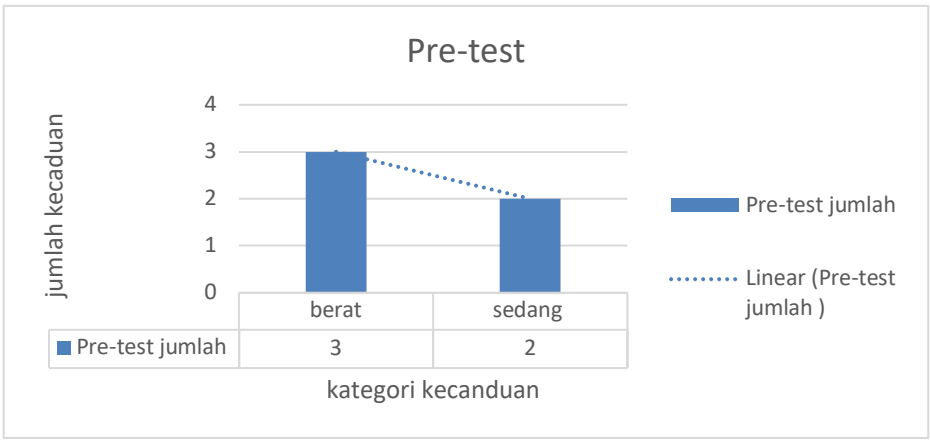

Figure 1. Postest Chart Percentage Category Addiction Category Group A (Control)

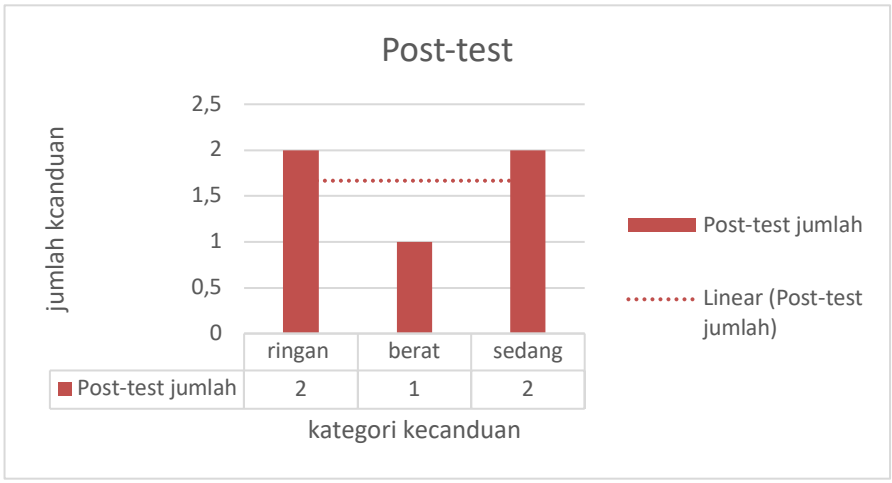

Figure 2. Posttest Chart Percentage Category Addiction Category Group B (Experiments)

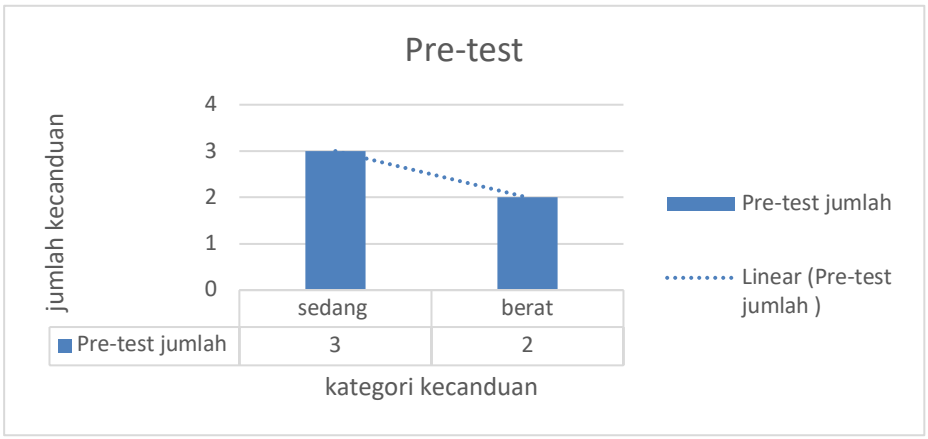

Figure 3 Prestest Chart Percentage Category Group A Addiction Categor (Control)

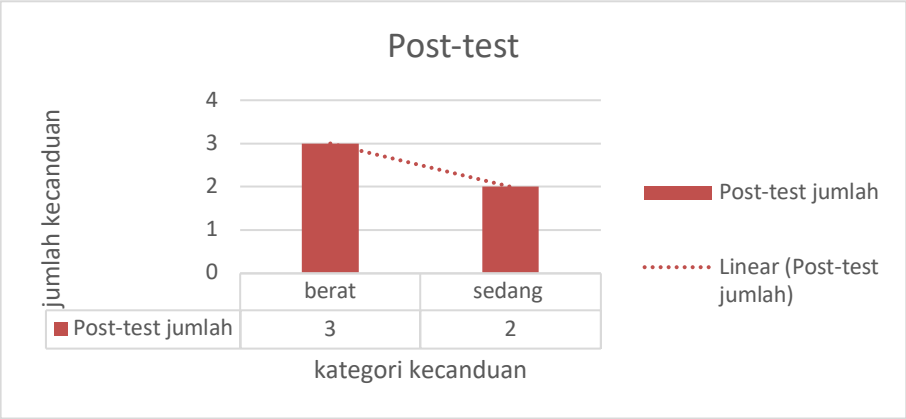

Figure 4 Prestest Graph Percentage Category Group B Addiction Category (Experiment)

Based on the image above, it is known that pre-test data in group A (control) from 5 respondents, 60% (2 teenagers) were in the moderate addiction category, and 40% (3 teenagers) were in the severe addiction category. Meanwhile, there was no difference in the post-test data because no intervention was carried out in this group. As can be seen from the image above, it is known that the pre-test in group B (experiment) of 5 respondents, 60% (3 teenagers) were in the moderate category, and 40% (2 teenagers) were in the heavy category. Meanwhile, 40% of post-test data (2 teenagers) were in the medium category, 20% (1 teenager) were in the heavy category, and 40% (2 teenagers) were in the light category.

Table 3. Normality Test Results

Tests of Normality

	Kolmogorov-Smirnov[a]			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	df	Sig.
pre-test A eksperimen	,173	5	,200*	,968	5	,859
pre-test A eksperimen	,172	5	,200*	,974	5	,898
post-test B kontrol	,173	5	,200*	,968	5	,859
post-test B kontrol	,180	5	,200*	,942	5	,677

*. This is a lower bound of the true significance.

a. Lilliefors Significance Correction

Table 4. Homogeneity Test Results Table

Tests of Homogeneity of Variances

		Levene Statistic	df1	df2	Sig.
Nilai	Based on Mean	,562	1	18	,463
	Based on Median	,560	1	18	,464
	Based on Median and with adjusted df	,560	1	17,009	,464
	Based on trimmed mean	,562	1	18	,463

Based on the output of the upper SPSS data, the results of the normality test using the Shapiro Wilk test found a significance value for pre-test A of 0.859, pre-test B of 0.898 and post-test B of 0.677. Thus, a value of significance was obtained in all variables, namely > 0.05, which indicates that the data is normally distributed.

Based on the SPSS data output above, homogeneity test results using the levene test for equality of variance analysis technique, a significant value (Sig) of 0.463 was allowed in the based on mean test. Because the significance value obtained was > 0.05, the data between group A and group B was declared homogeneous.

Hypothesis Test Results (Independent Sample T-Test)

To determine whether the hypothesis accepted in this study was Ho which stated that self management techniques did not reduce addiction in final year students, or Ha which stated that self management techniques could reduce addiction in Tomoli village teenagers, a parametric independent sample t-test was used. The following outputs and SPSSs provide details about the results of the hypothesis tests.

Table 6. Independent Sample T-Test

Independent Samples Test

		Levene's Test for Equality of Variances		t-test for Equality of Means						
									95% Confidence Interval of the Difference	
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	Lower	Upper
Nilai	Equal variances assumed	,007	,937	3,061	8	,016	19,600	6,403	4,834	34,366
	Equal variances not assumed			3,061	8,000	,016	19,600	6,403	4,834	34,366

Based on the results of the Sig value (2-tailed), namely 0.016 < 0.05, the results data from the independent sample t-test above showed a significant difference between the addiction rate from the post-test scores of group A and group B. The treatment of group B affected the adolescent addiction score, causing the adolescent addiction score to be lower after being given a post-test, than B who was not given any treatment. From the results above, Ha's hypothesis was accepted, namely that self-management techniques can reduce teenage addiction in Tomoli village.

Discussion

The results of the hypothesis test through independent sample t-test analysis showed a significance value of $\rho = 0.016 < 0.05$, which means there was a significant difference between the group given self-management intervention and the group not given intervention. This indicates that the application of self-management techniques is effective in reducing the level of online gaming addiction in teenagers. Statistically, these results show real changes in behavior after the intervention process takes place. This finding is in line with Skinner's operant conditioning theory (1953), which states that individual behavior can be changed through systematic reinforcement (reinforcement). In the context of this research, self-management techniques are a form of self-reinforcement where individuals learn to reinforce positive behavior such as reducing the duration of playing games, as well as controlling the urge to play excessively. Komalasari (2019) also emphasized that the application of self-management techniques is effective in helping counselees control addictive behavior, because it encourages self-awareness (self-awareness) and responsibility for one's own behavior.

Differences in results between the control group and the experimental group also indicate that behavior change requires active involvement of individuals. Ratna (2020) and Sari & Nugraha (2021) found that the success of self-management interventions was greatly influenced by the level of internal motivation and social support obtained by participants. In this study, two subjects (HY and BM) did not show significant changes due to lack of consistency in self-monitoring, as well as weak internal motivation. This phenomenon is in line with Bandura's (1986) view in social learning theory, that changes in behavior are not only influenced by external stimuli, but also by the individual's self-efficacy— confidence in his ability to control behavior.

The following is a verse that reflects self-control over lust:

وَاَمَّا مَنْ خَافَ مَقَامَ رَبِّهٖ وَنَهَى النَّفْسَ عَنِ الْهَوٰىۙ ﴿٤٠﴾

Translation:“

As for those who fear the greatness of their Lord and refrain from (the desires of) their desires”. QS An-Nazi'at:40

On the other hand, it is also emphasized that those who are afraid and make preparations because they see the greatness of their Lord and refrain from the invitation of their desires, then indeed heaven is their eternal and eternal abode. How lucky they were to get such a share. Hayadi stated that online gaming addiction is a condition where a person is bound by a very strong habit and cannot escape playing online games, from time to time there will be an increase in the frequency, duration or amount of doing this, regardless of the negative consequences that exist in him. The adolescent age limit itself consists of three phases, namely early adolescent (11-14 years), middle adolescent (15-17 years) and late adolescent (18-20 years). In this period the individual has reached maturity sexually and physically, with the development of good reasoning and the ability to make decisions related to education and occupation. At each stage, there are various changes that differ from one stage to another (Hockenberry, Wilson, & Rodgers 2019). From a psychological aspect, self-management techniques help individuals recognize the relationship between thoughts, emotions and actions, which is rooted in a cognitive-behavioral approach. Meichenbaum (2017) explains that the self-regulation process can reduce maladaptive behavior because individuals learn to re-structure negative thought patterns towards gaming activities, then replace them with positive goals such as increasing learning activities or social interaction. This was also evident in MF and AB subjects who showed significant progress, due to having high self-awareness and positive environmental support.

The phenomenon of differences in results between subjects suggests that personality and environmental factors play an important role. As asserted by Kuss and Griffiths (2017), the success of digital addiction interventions depends on the level of self-control, social support, as well as the individual's understanding of the consequences of addictive behavior. In these cases, subjects who had a supportive social environment and positive self-esteem were able to show a faster reduction in addictive behavior. Apart from that, the results of this research also support Erikson's (1968) view in the developmental stage of identity vs role confusion, where adolescence is an important period in the formation of identity and self-control. Self-management interventions help adolescents practice self-control as part of achieving a positive identity. This self-control also has a spiritual dimension as reflected in the QS. An-Nazi'at verse 40 which emphasizes the importance of refraining from lust as a form of piety. These values reinforce the moral and religious dimension of the process of changing adolescent behaviour.

Empirically, this study corroborates the findings of Gentile et al. (2011), which showed that individuals who experienced a decrease in the intensity of playing games after participating in behavioral interventions experienced an increase in concentration, social engagement and daily activity balance. Similar results were also shown by Alheneidi et al. (2021) that cognitive-behavioral and self-regulation approaches are effective in reducing digital addictive behavior because they help individuals recognize and regulate their responses to stimuli that trigger addictive behavior. Thus, the application of self-management techniques has been proven to not only reduce online gaming addiction, but also strengthen aspects of self-control, discipline and moral awareness. This technique provides space for adolescents to learn from their own experiences, evaluate their behavior, and

establish consequences independently. This is in accordance with Corey's (2013) view that effective behavioral intervention must give direct responsibility to the counselee in the change process.

CONCLUSSION

This research shows that the application of self-management techniques significantly affects the reduction of online game addiction levels in adolescents. The results of the hypothesis test ($\rho = 0.016 < 0.05$) prove that the experimental group receiving the intervention experienced positive behavioral changes, characterized by a decrease in play duration and increased awareness of the negative impact of online games. Meanwhile, the control group showed no significant changes because they did not receive any intervention.

Theoretically, the results of this study support previous findings that self-management techniques are effective in helping individuals control maladaptive behaviors based on digital habits. This intervention is relevant to be applied in the context of adolescent counselling for those facing self-control challenges in the digital age.

REFERRENCE

Alheneidi, H., Smith, A. P., & Thompson, E. (2021). The role of self-regulation and cognitive-behavioral strategies in managing digital addiction among adolescents. *Computers in Human Behavior, 115*, 106632. https://doi.org/10.1016/j.chb.2020.106632

Anderson, C. A., & Dill, K. E. (2020). Video games and aggressive thoughts, feelings, and behavior in the laboratory and in life. *Journal of Personality and Social Psychology, 78*(4), 772–790. https://doi.org/10.1037/0022-3514.78.4.772

Anderson, E., Steen, E., & Stavropoulos, V. (2022). Internet gaming disorder: Associations with mental health and academic outcomes. *Frontiers in Psychology, 13*, 849493. https://doi.org/10.3389/fpsyg.2022.849493

APJII. (2024). *Laporan survei internet Indonesia 2024.* Asosiasi Penyelenggara Jasa Internet Indonesia.

Bandura, A. (1986). *Social foundations of thought and action: A social cognitive theory.* Prentice Hall.

Cheng, C., Li, A. Y., & Kwok, C. (2018). Internet addiction and psychosocial maladjustment: Avoidant coping and coping inflexibility as mediators. *Computers in Human Behavior, 86*, 80–89. https://doi.org/10.1016/j.chb.2018.04.031

Corey, G. (2013). *Theory and practice of counseling and psychotherapy* (9th ed.). Brooks/Cole.

Gentile, D. A., Choo, H., Liau, A., Sim, T., Li, D., Fung, D., & Khoo, A. (2011). Pathological video game use among youths: A two-year longitudinal study. *Pediatrics, 127*(2), e319–e329. https://doi.org/10.1542/peds.2010-1353

Griffiths, M. D. (2019). The evolution of the 'components model' of addiction and the need for a confirmatory approach in gaming disorder research. *Journal of Behavioral Addictions, 8*(4), 784–787. https://doi.org/10.1556/2006.8.2019.59

Hardanti, H. A. (2019). Faktor penyebab kecanduan game online pada remaja. *Jurnal Psikologi Pendidikan, 5*(2), 134–145.

Komalasari, G. (2019). *Teori dan teknik konseling: Pendekatan kognitif, perilaku, dan humanistik.* Rajawali Pers.

Kuss, D. J., & Griffiths, M. D. (2017). Internet gaming addiction: A systematic review of empirical research. *International Journal of Mental Health and Addiction, 15*(4), 796–819. https://doi.org/10.1007/s11469-017-9789-6

Meichenbaum, D. (2017). *Cognitive-behavior modification: An integrative approach.* Springer Publishing Company.

Prayitno, A., & Rahman, F. (2022). Self-management techniques in counseling to reduce gadget addiction among adolescents. *Jurnal Konseling Indonesia, 8*(1), 45–56. https://doi.org/10.21009/jki.08105

Ratna, W. (2020). Efektivitas teknik manajemen diri untuk mengurangi perilaku adiktif terhadap gawai pada remaja. *Jurnal Psikologi Pendidikan dan Konseling, 7*(1), 23–32. https://doi.org/10.26858/jpkk.v7i1.14572

Sari, N., & Nugraha, A. (2021). Penerapan teknik self management dalam menurunkan kecanduan media sosial pada siswa SMA. *Jurnal Bimbingan dan Konseling Terapan, 5*(2), 45–56. https://doi.org/10.30598/jbkt.v5i2.678

Skinner, B. F. (1953). *Science and human behavior.* Macmillan.

Suharto, D., & Fitria, N. (2023). Dampak kecanduan game online terhadap kesehatan mental remaja. *Jurnal Ilmu Sosial dan Humaniora, 14*(2), 88–97. https://doi.org/10.23917/jish.v14i2.19877

We Are Social. (2023). *Digital 2023: Indonesia report.* DataReportal. https://datareportal.com/reports/digital-2023-indonesia

Young, K. S. (2017). Cognitive behavior therapy with Internet addicts: Treatment outcomes and implications. *CyberPsychology & Behavior, 4*(5), 671–679. https://doi.org/10.1089/109493101753235179