THE RELATIONSHIP BETWEEN PEER ATTACHMENT AND SELF-REGULATION WITH STUDENT ONLINE GAME ADDICTION AT SMAN 42 JAKARTA

Sondang Maria J Silaen, Christian Maranatha
Faculty of Psychology, Universitas Persada Indonesia Y.A.I Jakarta
smaria_silaen@yahoo.co.id, ctianmaranatha@gmail.com

ABSTRACT

This study aims to determine the relationship between peer attachment and self–regulation with online game addiction. The sample of this study was a class X students of SMAN 42 Jakarta totaling 140 students. This study uses a double correlation test technique, the data collected is analyzed using the SPSS 24.0 for Windows computer program. The results showed a significant positive relationship between the attachment of peers and students at SMAN 42 Jakarta, with $p = 0.000$ and $r = 0.327$. The second results shows a significant negative relationship between self–regulation and student addiction of students at SMAN 42 Jakarta, with $p = 0.000$ and $r = -0.483$. The results of the multiple correlation test show a significant relationship between the attachment of peers and self – regulation with student addiction of students at SMAN 42 Jakarta, with SIG. F Change $= 0.000$, $R = 0.580$ value, and R Square value $= 0.336$. Based on the description above, it can be concluded that there is a relationship between the attachment of peers and self – regulation with student addiction of students at SMAN 42 Jakarta. The implications of this research are expected to be able to avoid associations to play online games and increase self – regulation by prioritizing school assignments.

Keywords: peer attachment, self-regulation, online game addiction

INTRODUCTION

Information and communication technology has progressed in line with the times. Of course, increasingly sophisticated technological advances will have an effect on its development. Through advances in technology, the internet has become important in the use of devices. In addition to accessing information, internet users also take advantage of entertainment facilities, one of which is games.

Since the discovery of the internet network, a new term has emerged from games commonly called online games. Online games are games that can be accessed by many players, where the machines used by players are connected by the internet network. Game players divide the game into several categories, including, action games, fighting games, First Person Shooter (FPS), Third Person Shooter (TPS), Real Time Strategy (RTS), Role Playing Game (RPG), adventure, simulation, sport game, racing games and multiplayer game (Khairy, Herumurti, & Kuswardayan, 2016).

According to a survey by the Indonesian Internet Service Providers Association (APJII) in 2022, 14.23% of Indonesians access online games using the internet (APJII, 2022). The results of a study by Pokkt, Decision Lab and Mobile Marketing Association (MMA) also recorded the number of gamers (online game players) in Indonesia reached 60 million. This number is expected to continue to increase to 100 million in 2020 (Maulidia, 2018). Making Indonesia the country with the most gamers in Southeast Asia and sixth in Asia (Sulistya, 2020). Based on these data, it can be seen that the number of online game players in Indonesia is fairly large.

Online game addiction is a term used to describe behavior in excessive use of online games, where players cannot control the excessive game and will cause problems in emotional or social aspects (Lemmens, Valkenburg, & Peter, 2009). It further revealed that teenagers aged 12-18 years are more prone to excessive or compulsive use of online game play. This can certainly hinder the development of adolescents, especially their role as a student. Based on their age, high school students are generally aged 14-17 years.

Various kinds of problems faced such as conflicts with parents or peers, piled up schoolwork, or feelings of stress make adolescents run away from reality and turn their attention to the virtual world. Moreover, today's teenagers grow up with technology, so they have abilities that encourage them to be able to use it (Masya & Candra, 2016). This makes teenagers have a greater potential to experience online game addiction than other ages. According to Santrock, adolescence is a time when emotional highs and lows occur more often, the existence of self-regulation becomes an important factor in adolescent development (Gicharu, 2016). According to Bandura (1999), self-regulation is included in personality factors in terms of motivation. Self-regulation makes individuals self-motivated, can think to set personal goals and with their ability to plan strategies, evaluate and manipulate the environment so that environmental changes occur due to these activities (Cervone & Pervin, 2022). High self-regulation includes controlling thoughts, feelings and behavior during the process of achieving goals, and having a good relationship with oneself. One of the factors that cause individuals to experience addiction is low self-regulation (King & Delfabbro, 2018).

Based on this, to describe online game addiction, the author conducted a pre-research by conducting interviews and distributing questionnaires to 10 students of SMAN 42 Jakarta, resulting in more than 70% of students meeting the criteria for online game addiction. Students of SMAN 42 play online games Role Playing Game (RPG), sport game, racing game and action game.

Based on the background above, the researcher took the title "The Relationship Between Peer Attachment and Self-Regulation with Online Game Addiction of Students at SMAN 42 Jakarta". The formulation of the problem to be discussed in this study is about the relationship between peer attachment and online game addiction in SMAN 42 Jakarta students and the relationship between self-regulation and online game addiction in SMAN 42 Jakarta students and the relationship between peer attachment and self-regulation with online game addiction in SMAN 42 Jakarta students (Aditiyo Suratman, 2013).

METHOD
a. Identify Research Variables
According to Yani (n.d.) Variable is a property or value of people, objects or activities that have certain variations. While in this study the variables used are dependent variables (dependent variables) and independent variables (independent variables). In this case, the variables used by the author in this study are:
1. Dependent variable: Online Game Addiction (Y)
2. Free Variable: Peer Attachment (X1)
3. Self-Regulation (X2)

b. Population and Sampling Techniques
1. Research Population

According to Yani (n.d.), population is a group of division of an area that contains objects and has the quantity and character of adolescents who are subject to researchers so that they can be studied and drawn conclusions. The populations in this study are:

a) Students of SMAN 42 Jakarta,
b) Being in class X,
c) Play online games.

2. Sampling Techniques

According to Yani (n.d.), it can be said to be a sample if there are characters and numbers that have been owned by a population. The intended sample for study must be able to represent the entire population that has been taken by the researcher. In this study the author used purposive sampling techniques.

Based on the current pupulation, there are 287 students and class X students at SMAN 42 Jakarta. The population that meets the category of playing online games amounts to 224 students. Thus, researchers used sampling techniques using Krejcie and Morgan tables, which are 140 samples. Researchers used kela X-1 into a trial sample of 34 students.

3. Data Collection Methods

In this study using data collection techniques in the form of questionnaires or commonly called questionnaires. According to Yani (n.d.), questionnaires are data collection techniques carried out by giving a set of questions or written statements to respondents to answer.

The data collector used to find out the three variables is to use the Likert scale. Likert scale is a scale used to measure the attitudes, opinions, and perceptions of a person or group of people about social phenomena. With Likert scale, the variable to be measured is converted into a variable index. The indicator is then used as a starting point to compile items that can be statements or questions. The types of questions that will be asked on the scale show as favorable sentences that are sentences that support the measured object and unfavorable that is sentences that do not support the measured object. on the Likert scale there are five alternative answer choices, namely Very Appropriate (SS), Appropriate (S), Neutral (N), Not Appropriate (TS), Very Inappropriate (STS) with scores of 5,4,3,2,1 for favorable statements and 1,2,3,4,5 for unfavorable statements, respectively. The method of assigning values on the Likert scale, which is as follows:

Table 3.1
Likert scale

Answer Categories	Favorable	Unfavorable
Highly Compliant (SS)	5	1
Compliant (S)	4	2
Neutral (N)	3	3
Non-Compliant (TS)	2	4
Highly Non-Conforming (STS)	1	5

Blue print scales of online game addiction, peer attachment, and self-regulation as follows:

a) Online Game Addiction

The author compiles an online game addiction scale with aspects of online game addiction according to (Lemmens et al., 2009), namely salience, tolerance, relapse, withdrawal, mood modification, conflict, and problems.

Table 3.2
Blue Print Online Game Addiction

No	Aspects	Indicators	Favorable	Unfavorable	Sum
1	Salience	Can't escape from Online Games	**1,19**	**8,20**	**4**
2	Tolerance	Delaying quitting Play online games	**9,23**	**2,25**	**4**
3	Relapse	Have the desire to Play online games return	**3,15**	**10,16**	**4**
4	Withdrawal	Bad emotions if Can't play games Online	**11,26**	**4,22**	**4**
5	Mood Modification	Play online games as an escape	**5,21**	**12,27**	**4**
6	Conflict	Quarrel with others about the game Online	**13,17**	**6,18**	**4**
7	Problems	Neglecting activities more importantly	**7,28**	**14,24**	**4**
	Sum		**14**	**14**	**28**

b) Peer Attachment

The author uses a standard scale of peer attachment that has often been used for research in Indonesia, namely the Inventory of Parent and Peer Attachment – Revised (IPPA-R).

The IPPA-R scale consists of 25 statement items with three aspects of (Armsden & Greenberg, 1987) consisting of trust, communication, and rivalry.

Table 3.3
Peer Attachment Blue Print

No	Aspects	Indicators	Favorable	Unfavorable	Sum
1	Belief	Peers understand individual desires and peers respect for wishes Individual	**6, 8, 12, 13, 14, 15, 19, 20, 21**	**5**	**10**
2	Communication	Peers Ask problem, ask	**1, 2, 3, 7, 16, 17, 24, 25**		**8**

		opinion, and help Individuals understand themselves alone.			
3	Ketersaingan	Scanning and rejection	**4, 9, 10, 11, 18, 22, 23**		**7**
		Total	**24**	**1**	**25**

c)   Self-Regulation

The author compiles a self-regulation scale using aspects of Zimmerman's self-regulation (Prayoga, Haidar, & Astuti, 2022) consisting of metacognitive, motivational, and behavioral.

Table 3.4
Self-Regulation Blue Print

No	Aspects	Indicators	Favorable	Unfavorable	Sum
1	Metacognitive	Plan	**1,18**	**8,20**	**4**
		Organize	**9, 26**	**2, 24**	**4**
		Evaluation	**3, 21**	**17, 25**	**4**
2	Motivation	Encouragement that includes perception of self-efficacy	**16, 22**	**4, 10**	**4**
3	Behaviour	Attempts to organize the environment	**5, 11**	**15, 19, 27**	**5**
		Efforts to select the environment	**14, 23**	**6,12**	**4**
		Efforts to create an environment	**7, 28**	**13, 29**	**4**
		Sum	**14**	**15**	**29**

c.   **Research Instruments**
1.   **Trial Results**
a)   **Validity Testing**

Validity is a term in research used to explain the accuracy and accuracy of a measuring instrument against what is measured, and becomes a determination of the form obtained from the assessment results (Arifin, 2016).

In this study used for validity testing by researchers is if the significance value (2-tailed) is less than 0.05 then it is declared valid, and vice versa, if the significance value (2-tailed) is greater than 0.05 then it is declared invalid.

1)   **Results of Online Game Addiction Scale Analysis**

The online game addiction scale has 28 items consisting of 14 favorable items and 14 unfavorable items. Based on the results of the analysis test, 18 valid items and 10 fall items were obtained.

Table 3.5
Online Game Addiction Scale Analysis

No	Aspects	Indicators	Favorable	Unfavorable	Sum
1	Salience	Can't escape from Online Games	**1, 19**	**8*, 20***	**4**
2	Tolerance	Delaying quitting Play online games	**9, 23**	**2*, 25***	**4**
3	Relapse	Have the desire to Play online games return	**3, 15**	**10, 16**	**4**
4	Withdrawal	Bad emotions if Can't play games Online	**11, 26**	**4, 22**	**4**
5	Mood Modification	Play online games as an escape	**5, 21**	**12, 27***	**4**
6	Conflict	Quarrel with others about the game Online	**13*, 17***	**6*, 18**	**4**
7	Problems	Neglecting activities more importantly	**7, 28***	**14*, 24**	**4**
		Number of		**141428**	

Remarks: the * sign is a deciduous item

2) Results of Peer Attachment Scale Analysis

The peer attachment scale has 25 items consisting of 24 favorable items and 1 unfavorable item. Based on the results of the analysis test, 19 valid items and six deciduous items were obtained.

Table 3.6
Peer Attachment Scale Analysis

No	Aspects	Indicators	Favorable	Unfavorable	Sum
1	Belief	Peers understand individual desires and peers respect for wishes Individual	**6, 8, 12, 13, 14, 15, 19, 20, 21**	**5***	**10**
2	Communication	Peers Ask problem, ask opinion, and help Individuals understand themselves alone.	**1, 2, 3, 7, 16, 17, 24, 25**		**8**

3	Impressions	Scanning and rejection	**4*, 9, 10, 11*, 18*, 22*, 23***		**7**
		Total	**24**	**1**	**25**

Remarks: the * sign is a deciduous item

3) Results of Self-Regulation Scale Analysis

The self-regulation scale has 29 items consisting of 14 favorable items and 15 unfavorable items. Based on the results of the analysis, 19 valid items and 10 fall items were obtained.

Table 3.7

Self-Regulation Scale Analysis

No	Aspects	Indicators	Favorable	Unfavorable	Sum
1	Metacognitive	Plan	**1,18**	**8,20**	**4**
		Organize	**9, 26**	**2, 24**	**4**
		Evaluation	**3*, 21**	**17*, 25**	**4**
2	Motivation	Encouragement that includes perception of self-efficacy	**16, 22**	**4, 10***	**4**
3	Behaviour	Attempts to organize the environment	**5*, 11***	**15, 19, 27***	**5**
		Efforts to select the environment	**14*, 23***	**6,12***	**4**
		Efforts to create an environment	**7*, 28**	**13, 29**	**4**
		Sum	**14**	**15**	**29**

Remarks: the * sign is a deciduous item

b) Reliability Testing

According to Yani (n.d.), reliability is the degree of consistency or constancy of an instrument. Measurements with high reliability are called reliable measurements. The concept of reliability is how reliable a measurement result is, which means that if it is the same, then relatively the same results are obtained (Nureva & Melinda, 2022).

Reliability measurement using Cronbach's Alpha test on SPSS program version 24.0 for windows. After receiving the correct calculation results, the calculation results are adjusted according to the standard rules. The standard rules of reliability used by researchers to measure high or low use the rules of Guildford & Fruchter (Kuncono Teguh Y, 2016) as follows:

Table 3.8
Guildford &; Fruchter Reliability Rules

CriteriaCoefficient of Reliability
Very reliable> 0.9
Reliable0.7 – 0.9
Quite Reliable0.4 – 0.7
Less reliable0.2 – 0.4
Unreliable< 0.2

1) Online Game Addiction Scale Reliability

Based on the test results, there are 18 valid items and reliability of 0.874 is obtained, based on this number, reliability according to Guilford & Fruchter rules is included in the reliable category.

2) Reliability of the Peer Attachment Scale

Based on the test results, there are 19 valid items and reliability of 0.799 is obtained, based on this number, reliability according to Guilford & Fruchter rules is included in the reliable category.

3) Reliability of Self-Regulation Scale

Based on the test results, there are 19 valid items and reliability of 0.849 is obtained, based on this number, reliability according to Guilford & Fruchter rules is included in the reliable category.

2. Final Instruments
a) Online Game Addiction Scale

Table 3.9
Online Game Addiction Scale Final Instrument

No	Aspects	Indicators	Favorable	Unfavorable	Sum
1	Salience	Can't escape from Online Games	**1, 13**		**2**
2	Tolerance	Delaying quitting Play online games	**6, 16**		**2**
3	Relapse	Have the desire to Play online games return	**2, 10**	**7, 11**	**4**
4	Withdrawal	Bad emotions if Can't play games Online	**8, 18**	**3, 15**	**4**
5	Mood Modification	Play online games as an escape	**4, 14**	**9**	**3**
6	Conflict	Quarrel with others about the game		**12**	**1**

7	Problems	Online Neglecting activities more importantly	**5**	**17**	**2**
		Sum	**11**	**7**	**18**

b) **Peer Attachment Scale**

Table 3.10
Peer Attachment Scale Final Instrument

No	Aspects	Indicators	Favorable	Unfavorable	Sum
1	Belief	Peers understand individual desires and peers respect for wishes Individual	**4, 6, 9, 10, 11, 12, 15, 16, 17**		**9**
2	Communication	Peers Ask problem, ask opinion, and help Individuals understand themselves alone.	**1, 2, 3, 5, 13, 14, 18, 19**		**8**
3	Rivalry	Scanning and rejection	**7, 8**		**2**
		Total	**19**	**0**	**19**

c) **Self-Regulation Scale**

Table 3.11
Final Instrument of Self-Regulation Scale

No	Aspects	Indicators	Favorable	Unfavorable	Sum
1	Metacognitive	Plan	**1,10**	**5,12**	**4**
		Organize	**6, 17**	**2, 15**	**4**
		Evaluation	**13**	**16**	**2**
2	Motivation	Encouragement that includes perception of self-efficacy	**9, 14**	**3**	**3**
3	Behaviour	Attempts to organize the environment		**8, 11**	**2**
		Efforts to select the environment		**4**	**1**
		Efforts to create an environment	**18**	**7, 19**	**3**
		Sum	**8**	**11**	**19**

d.   Data Analysis Techniques

The data analysis technique that will be used for research data processing is the bivariate correlation calculation technique, which is to determine the relationship between one independent variable and one dependent variable, namely:

1. Ha1: To find out the relationship between peer attachment and online game addiction of students at SMAN 42 Jakarta.
2. Ha2: To find out the relationship between self-regulation and online game addiction of students at SMAN 42 Jakarta.

While the calculation technique of multiple correlation techniques is used to determine the relationship between the three variables at once, namely:

3. Ha3: The relationship between peer attachment and self-regulation with online game addiction of students at SMAN 42 Jakarta.

The data processing process in this study was carried out with the help of SPSS 24.0 for windows, to systematically describe the data.

RESULTS AND DISCUSSION

The research was conducted at SMAN 42 Jakarta, Jl. Rajawali Raya, Halim Perdana Kusumah, Makassar District, East Jakarta City, DKI Jakarta 13650. In conducting this study, the author first conducted a survey in the environment of SMAN 42 Jakarta, to find the phenomenon of online game addiction. In the first step, the author communicated with each class leader X-1 to X-8 to make attendance stating playing online games to each class. Found from a population of 287 people, only as many as 224 people are eligible to play online games.

Furthermore, the author conducted a study with variables of peer attachment, self-regulation, and online game addiction. Before being used as a research measuring instrument, the author first conducted a trial on the measuring instrument to determine the validity and reliability of the measuring instrument. The author conducted a trial by distributing the questionnaire online on January 27, 2023. The trial was conducted on 34 students of grade X-1 SMAN 42 Jakarta. After the data was collected, the authors conducted validity and reliability tests using the SPSS 24.0 for windows computer program.

Then after obtaining a valid and reliable measuring instrument scale, the author conducted a study on 140 grade X students of SMAN 42 as a research sample. The research data collection was carried out from January 31 to February 2, 2023. After the data was collected, researchers calculated data for each variable using the SPSS 24.0 for windows computer program.

The research data collected by the author was 140 respondents from students in grades X-2 to X-8 at SMAN 42 Jakarta, the research respondents came from a population that met the category of 224 people. The authors looked at Krejcie and Morgan's sample table as a reference for research sampling.

In this section will be described in general demographics of research respondents including gender:

Table 4.1

Demographic Data of Research Respondents

Categorization	Frequency	Percentage
Man	86	61,42%
Woman	54	38,58%
Total	140	100%

The normality test aims to determine whether the distribution of research data from dependent and independent variables spreads normally. The normality test was performed with the computer program SPSS 24.0 for windiws. If the results of the analysis obtained a significance value of >0.05 indicates normal distributed residual data, vice versa, if a significance value of <0.05 is obtained indicates abnormally distributed residual data.

Based on the results of the normality test of peer attachment scale, self-regulation, and addiction to online games, a significance value of 0.200 was obtained, which means that the value is greater than 0.05. The normality test results show that the residual data are normally distributed.

The data categorization test was carried out on all three variables, and consisted of three categories of data, namely low, medium, and high with norms X < (M - 1SD) "Low", (M-1SD) ≤ X < (M + 1SD) "Medium", and X ≥ (M + 1SD) "High". The following are the results of the data categorization test:

a. Peer Attachment

Descriptive peer attachment variables showed a minimum value of 43, a maximum value of 75, an average value of 60.83, and a standard deviation value of 7.391. With these data, the variable score of peer attachment can be categorized as low if X < 53, medium 53 ≤ X < 68, and high X ≥ 68. Peer attachment falls into the medium category.

b. Online Game Addiction

Descriptive self-regulation variables showed a minimum value of 52, a maximum value of 89, an average value of 66.66, and a standard deviation value of 8.034. With these data, the self-regulation variable score can be categorized as low if X < 59, medium 59 ≤ X < 75, and high X ≥ 75. Self-regulation falls into the medium category.

c. Self-Regulation

Descriptive online game addiction variables show a minimum value of 34, a maximum value of 65, an average value of 50.08, and a standard deviation value of 7.820. With this data, the variable score of online game addiction can be categorized as low if X < 42, medium 42 ≤ X < 58, and high X ≥ 58. Online game addiction falls into the medium category.

In this study there are three hypotheses that will be tested, to test the hypothesis the research is carried out with bivariate correlation methods and multiple correlations with the SPSS 24.0 for windows computer program.

a. First Hypothesis Testing (X1 with Y)

The results of the first hypothesis analysis test were carried out using the bivariate correlation method between the peer attachment scale and the online game addiction scale conducted with the SPSS 24.0 for windows computer program. Based on the results of research data analysis conducted on 140 respondents at SMAN 42 Jakarta, the first hypothesis obtained a significance value of $0.000 < 0.05$, stating that there is a significant relationship between peer attachment and online game addiction. The pearson correlation value is 0.327, meaning it is positively correlated. The value of the correlation coefficient according to the Sugiyono table (2017) which is in the interval 0.20 to 0.399 which states the correlation coefficient is in the low category, then the first hypothesis is accepted. Based on these calculations, it shows that the first hypothesis in this study is accepted, namely that there is a relationship between peer attachment and online game addiction in students of SMAN 42 Jakarta. Judging from the results of the correlation coefficient value and significance value, it can be concluded that the higher the peer attachment, the higher the online game addiction of students at SMAN 42 Jakarta, and vice versa, the lower the peer attachment, the lower the online game addiction of students at SMAN 42 Jakarta.

b. Second Hypothesis Testing (X2 with Y)

The results of the second hypothesis analysis test were carried out using a bivariate correlation method between the self-regulation scale and the scale of online game addiction conducted with the SPSS 24.0 for windows computer program. The results of the second hypothesis obtained a significance value of $0.000 < 0.05$, which states a significant correlation between self-regulation and online game addiction and has a pearson correlation of -0.483 which means there is a negative correlation between the two variables, and shows a moderate level of correlation based on the table of correlation coefficient levels according to Sugiyono (2017), the value of the correlation coefficient which is in the interval -0.20 to -0.399. Based on these calculations, it shows that the second hypothesis in this study is accepted, namely that there is a relationship between self-regulation and online game addiction in students of SMAN 42 Jakarta. It can be concluded that the higher the self-regulation, the lower the level of online game addiction of students at SMAN 42 Jakarta, and vice versa, the lower the self-regulation, the higher the level of online game addiction of students at SMAN 42 Jakarta.

c. Third Hypothesis Testing (X1 and X2 with Y)

The results of the third hypothesis analysis test were carried out using the multiple correlation method between the peer attachment scale and the self-regulation scale with the online game addiction scale carried out with the SPSS 24.0 for windows computer program. In the third hypothesis test, the probability value of Sig. F change is obtained which is $0.000 < 0.05$, then the correlation between variables is declared significant. Then it was found that the R value or the magnitude of the relationship between peer attachment (X1) and self-regulation (X2) with online game addiction (Y) was 0.580 which entered at moderate intervals according to Sugiyono (2017) which was 0.4 to 0.599.

While the simultaneous contribution of variables of peer attachment and self-regulation with online game addiction is written in a table with R Square which has a value of 0.336 so that it has a contribution rate of 33.6% and the remaining 66.4% is determined by other variables. This can happen because the factors that affect online game addiction are not only peer

attachment and self-regulation, there are still many factors such as parental attachment, self-control, and other variables. Based on this, the third hypothesis can be accepted which states that there is a relationship between peer attachment and self-regulation with online game addiction of students at SMAN 42 Jakarta.

This research has been attempted and carried out with scientific procedures, but researchers face some limitations that can affect the conditions of the research conducted. Some of the limitations faced by researchers are as follows:

1. The scale used by researchers in this study is a scale made with quantitative data so that sampling depends on the honesty of answers from respondents filling out questionnaires.

2. This research was conducted through a questionnaire in the form of a google form link, by contacting several class leaders, researchers depend on the activity of class leaders in distributing questionnaires to respondents, researchers find it difficult to meet directly with respondents because respondents are undergoing an independent curriculum and often carry out activities outside school.

3. In this study, researchers only used peer attachment factors and self-regulation with online game addiction, while there are many other factors that are very likely to have a major contribution to online game addiction.

Based on the results of data analysis and discussion that has been explained earlier, it can form the following conclusions:

1. There is a significant relationship in a positive direction between peer attachment and online game addiction in grade X students of SMAN 42 Jakarta. This can be interpreted that peer attachment is one of the factors that influence grade X students of SMAN 42 Jakarta on the level of online game addiction. The higher the attachment of peers, the higher the addiction to online games. Vice versa, the lower the peer attachment, the lower the level of online game addiction.

2. There is a significant negative relationship between self-regulation and online game addiction in grade X students of SMAN 42 Jakarta. This can be interpreted that self-regulation is one of the factors that influence grade X students of SMAN 42 Jakarta on the level of online game addiction. The higher the self-regulation, the lower the level of addiction to online games. Vice versa, the lower the self-regulation, the higher the level of addiction to online games.

3. There is a significant relationship between peer attachment and self-regulation with online game addiction of grade X students at SMAN 42 Jakarta. The degree of correlation according to the correlation coefficient table is at a moderate level. The contribution of peer attachment and self-regulation variables has a contribution rate of 33.6% and 66.4% is determined by other variables.

While the implication of this study is that students are expected to choose positive friendships by avoiding associations to play online games. Student self-regulation is also expected to be improved so as not to get a reprimand from the teacher for not doing assignments to play online games. The implications for the school are expected to control student activities in the school environment and if needed the school can create a container to accommodate students' online game playing activities at school.

Based on the conclusions and implications of the results of the research analysis, the author provides the following suggestions:

1. Theoretical Advice

Further researchers are expected to develop research by adding other variables. In addition, researchers are further advised to conduct research with different subjects, both in education level and age and the results of this study can be used as a reference for further research.

2. Practical advice

   a. For Students

The results of this study are expected to be taken into consideration by students in determining friendship relationships and improving self-regulation in order to limit time in playing online games, so as not to neglect obligations as students (Adiyanti, 2012).

   b. For Schools

The results of this study are expected to be information for the school to be able to control student activities in playing online games and help students have high self-regulation, so that the school can achieve the school's vision and mission to create superior seeds in the future.

CONCLUSION

A study was conducted at SMAN 42 Jakarta to investigate the phenomenon of online gaming addiction. A survey was conducted on 287 students, and only 224 students met the criteria to be included as research samples. The study used the variables of peer attachment, self-regulation, and online gaming addiction. After obtaining valid and reliable measurement tools, a study was conducted on 140 tenth-grade students at SMAN 42. The hypothesis testing results showed that there was a significant relationship between peer attachment and online gaming addiction, and there was a negative relationship between self-regulation and online gaming addiction. The categorical data results showed that peer attachment and online gaming addiction were in the moderate category, while self-regulation was in the low category.

REFERENCES

Aditiyo Suratman, L. R. C. (2013). Hubungan kualitas peer attachment dengan konsep diri pada remaja Depok. Jakarta: Universitas Bina Nusantara.

Adiyanti, M. G. (2012). Attachment of Late Adolescent to Mother, Father, and Peer, with Family Structure as Moderating Variable and their Relationships with Self-esteem. Jurnal Psikologi, 39(2), 129–142.

Arifin, Zainal. (2016). Evaluation of learning principles, techniques, procedures. Eighth Printing, Jakarta: Rosda Karya.

Armsden, Gay C., & Greenberg, Mark T. (1987). The inventory of parent and peer attachment: Individual differences and their relationship to psychological well-being in adolescence. Journal of Youth and Adolescence, 16(5), 427–454.

Bandura, Albert. (1999). Social cognitive theory of personality. Handbook of Personality, 2, 154–196.

Cervone, Daniel, & Pervin, Lawrence A. (2022). Personality: Theory and research. John Wiley & Sons.

Gicharu, Rachel Nyambura. (2016). Influence of adolescence developmental changes on academic performance of students in public secondary schools in Nakuru Municipality, Nakuru County, Kenya. Egerton University.

Khairy, Muhammad Shulhan, Herumurti, Darlis, & Kuswardayan, Imam. (2016). Analisis Pengaruh Penggunaan Game Edukasi pada Penguasaan Kosakata Bahasa Asing dengan Studi Kasus Game Edukasi Bahasa Arab. Khazanah Informatika: Jurnal Ilmu Komputer Dan Informatika, 2(2), 42–48.

King, Daniel, & Delfabbro, Paul. (2018). Internet gaming disorder: Theory, assessment, treatment, and prevention. Academic Press.

Lemmens, Jeroen S., Valkenburg, Patti M., & Peter, Jochen. (2009). Development and validation of a game addiction scale for adolescents. Media Psychology, 12(1), 77–95.

Masya, Hardiyansyah, & Candra, Dian Adi. (2016). Faktor-faktor yang mempengaruhi perilaku gangguan kecanduan game online pada peserta didik kelas x di madrasah aliyah al furqon prabumulih tahun pelajaran 2015/2016. Konseli: Jurnal Bimbingan Dan Konseling (e-Journal), 3(2), 103–118.

Maulidia, Lely. (2018). Jumlah gamer di Indonesia capai 100 juta di 2020. Retrieved from tek.id website: https://www.tek.id/insight/jumlah-gamer-di-indonesia-capai-100-juta-di-2020-b1U7v9c4A

Nureva, Nureva, & Melinda, Mella. (2022). Applying of Scientific Approach on the Result of Learning Natural Science at State Elementary School 1 Segalamider Bandar Lampung. Bulletin of Science Education, 2(2), 81–92.

Prayoga, Rio Renaldi, Haidar, Kadori, & Astuti, Ratna Fitri. (2022). Pengaruh Gaya Belajar Visual dan Intensitas Belajar terhadap Hasil Belajar Siswa Kelas X SMK Negeri 1 Samarinda. Kompetensi, 15(1), 59–65.

Sulistya, Rahma. (2020). Jumlah Gamers Online Indonesia Terbanyak di Asia Tenggara.

Yani, Jenderal Achmad. (n.d.). Sugiyono. 2017. Metode Penelitian Kuantitatif, Kualitatif, Dan R&D. Bandung: Alfabeta. Ferrari, JR, Jhonson, JL, & McCown, WG (1995). Procrastination And Task Avoidance: Theory, Research & Treatment. New York: Plenum Press. Yudistira P, Chandra. Diktat Ku.