

CHAPTER IV

THE ASSOCIATION OF INTENSITY OF GAME PLAYING: MOBILE LEGENDS BANG-BANG AND THE INTENSITY OF YOUTUBE GAMING ACCESS TOWARDS TOXIC BEHAVIOR AMONG STUDENTS

This chapter will discuss the testing of hypotheses, whether there is an influence between the intensity variables of game playing Mobile Legends: Bang-Bang and YouTube gaming access towards toxic behavior among students. The test tool of this research in evaluate the hypotheses is multiple linear regression analysis formula, which will be done after completing the classical assumption test. In this chapter, more discussion about the research findings will be elaborated more.

4.1 Classical Assumption Test

Before testing the result of the hypotheses, the researcher used 118 respondents who have the criteria for doing the classical assumption test in which there were normality test, homoscedasticity and multicollinearity tests.

4.1.1 Normality Test

Normality test is carried out to find out whether in a regression model, an independent variable and a dependent variable or both have a normal or abnormal distribution. This test can be carried out with One Sample Kolmogorov Smirnov test with the stipulation that if the significant value is $\text{Sig} > 0.05$ then the data has a normal distribution. Whereas if $\text{Sig} < 0.05$ then the data does not have a normal distribution.

The data can be defined as normally distributed if the sig. (2-tailed) > 0.05. The test results use SPSS in the table 4.1-1.

One-Sample Kolmogorov-Smirnov Test

		Unstandardized Residual
N		118
Normal Parameters ^{a,b}	Mean	,0000000
	Std. Deviation	5,07695624
Most Extreme Differences	Absolute	,124
	Positive	,090
	Negative	-,124
Kolmogorov-Smirnov Z		1,352
Asymp. Sig. (2-tailed)		,052

a. Test distribution is Normal.

b. Calculated from data.

Figure 4.1- 1 SPSS Result

Based on the result above (in Figure 4.4-1), it shows that the significance value is 0.052 which is above 0.05. This means that the residual data is normally distributed.

4.1.2 Heteroscedasticity Test

Heteroscedasticity test is to test whether in the regression model there is an inequality of variance from one residual observation to another. If the variance from the residual from the residual from one observation to another observation remains, it is called homoscedasticity and if it is shown different, it is called heteroscedasticity. A good regression model is a model that does not have heteroscedasticity.

Scatterplot

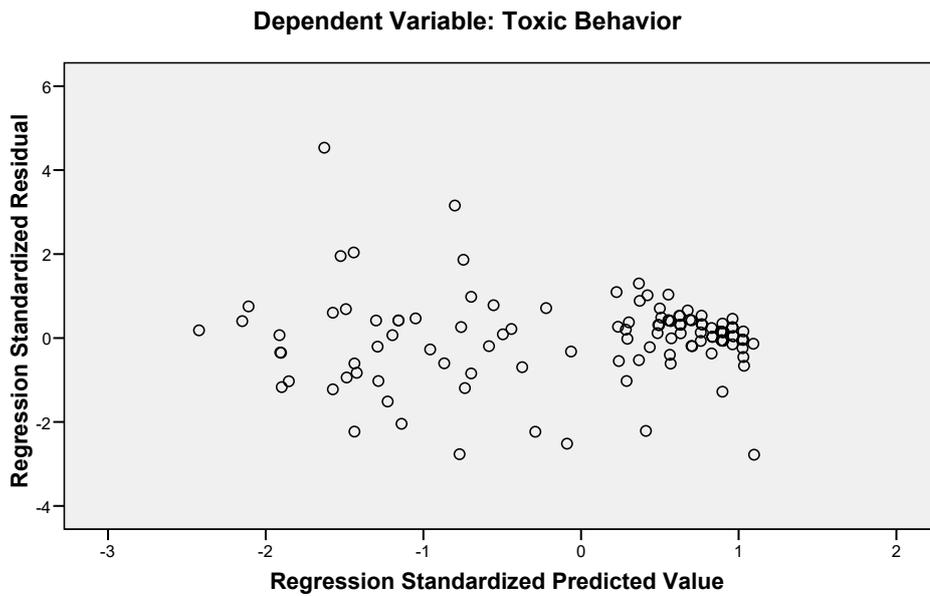


Figure 4.1- 2 Scatter Plot Graph

Based on the graph above, the residuals appear fairly randomly scattered, without a clear funnel or curve pattern. There's no obvious increase or decrease in spread of residuals across the x-axis, meaning that the data above is not heteroscedasticity.

4.1.3 Multicollinearity Test

Multicollinearity test is to find out whether there are two or more independent variables that are linearly correlated. Interpretation:

- VIF = 1: No multicollinearity
- VIF > 5: Moderate multicollinearity (potential concern)
- VIF > 10: High multicollinearity (serious concern)

Tolerance:

$$\text{Tolerance} = 1 / \text{VIF}$$

Low tolerance (< 0.2 or 0.1) suggests high multicollinearity

Coefficients^a

Model		Collinearity Statistics	
		Tolerance	VIF
1	Intensity of Game Playing Mobile Legends	,301	3,318
	Intensity of YouTube Gaming Access	,301	3,318

a. Dependent Variable: Toxic Behavior

Table 4.1-3 Multicollinearity Test

From the multicollinearity above, there is no serious multicollinearity between the two variables. Although they are somewhat correlated ($VIF > 1$), the values are within acceptable limits. This means both variables can remain in the model without distorting the regression results significantly.

4.2 Hypothesis Test

4.2.1 F-test

The F-test in the linear regression model is used to find out whether the independent variables simultaneously influence the dependent variable. In this study, the method used is to compare Sig. value with the Research Alpha. If the Sig. value is > 0.05 , it means that the independent variable simultaneously has no effect on the dependent variable (hypothesis rejected). If the Sig. value < 0.05 , means the independent variables simultaneously has effect of the dependent (hypothesis accepted).

ANOVA^b

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	5716,162	2	2858,081	117,566	,000 ^a
	Residual	2795,703	115	24,310		
	Total	8511,864	117			

a. Predictors: (Constant), Intensity of YouTube Gaming Access, Intensity of Game Playing Mobile Legends

b. Dependent Variable: Toxic Behavior

Table 4.2- 1
Significant Value with the Research Alpha

Based on the table above, it can be seen that the significance value has a value of 0,000 (Sig <0,05) means that the independent variables has simultaneously effects on the dependent variable. Thus, the intensity of game playing Mobile Legends and the intensity of YouTube gaming access affects toxic behavior.

4.2.2 Coefficient of Determination

The Coefficient of Determination used to measure how much the percentage of the influence of the independent variables on the dependent variables in units of percent it a regression research model. In multiple linear regression analysis, the Adjusted R Square value is used only measure R square with significant independent variables. The results of the coefficient of determination test in this study are as follows:

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	,819 ^a	,672	,666	4,931

a. Predictors: (Constant), Intensity of YouTube Gaming Access, Intensity of Game Playing Mobile Legends

Table 4.2- 2
Results of the Coefficient of Determination Test

From the graph above, it shows that the adjusted R square is 0,666 or 66.6%, this shows that the intensity of game playing Mobile Legends and the intensity of YouTube gaming access have 66.6% of toxic behavior and only 33.3% of the toxic behavior is explained by variables outside the independent variables in this research.

4.2.3 Multiple Linear Regression Analysis

Coefficients^a

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	1,984	2,092		,948	,345
	Intensity of Game Playing Mobile Legends	,446	,120	,361	3,710	,000
	Intensity of YouTube Gaming Access	,480	,095	,493	5,066	,000

a. Dependent Variable: Toxic Behavior

Table 4.2- 3
Result of Multiple Linear Regression Test

Based on the table above, it can be obtained the following multiple linear regression equation:

$$Y \text{ (Toxic Behavior)} = 1.984 + 0.446 \text{ (Intensity of Playing Mobile Legends)} + 0.480 \text{ (Intensity of YouTube Gaming Access)}$$

The above formula can be explained as follows:

- a. The constant value of 1.984 indicates that if the intensity of game playing Mobile Legends and the intensity of YouTube gaming access has a value of 0 and the toxic behavior has a value of 1,984.
- b. Based on the coefficient value of the intensity of game playing Mobile Legends (B) is 0,446, it means that there is a positive influence between X1

and Y. Thus, every time game playing Mobile Legends increases, toxic behavior increases by 0,446

- c. The coefficient value of intensity of YouTube gaming access (B) shows 0,480), means it has positive influence between X2 towards Y where every time there is an increase of YouTube gaming access, there is an increase of 0,480 of toxic behavior.

4.3 Discussing the Influence of Game Playing: Mobile Legends Bang-Bang and the Intensity of YouTube Gaming Access Towards Toxic Behavior Among Students.

Based on the classical assumption test and hypotheses test, the finding suggested that there is an influence of intensity of game playing Mobile Legends and the intensity of YouTube gaming towards toxic behavior, as it can be seen that the significance value has a value of 0,000 (Sig <0,05), more than the research alpha, means that the independent variables has simultaneously effects on the dependent variable. The result of this study, on both variables, the intensity of game playing Mobile Legends and the intensity of YouTube gaming access has positive coefficient value where X1 has 0,446 coefficient value and X2 has 0,446. Means each dependent variables have a positive impact of the dependent variables, every time X1 and X2 increases, it will increased Y. From the result of the research above, it shows that the hypothesis is accepted. The results of this research can be seen from the indicators of the level of frequency, length of time and attention of the respondents in doing toxic behavior.

Cultivation theory has been used to comprehend how players' attitudes and behaviours can be influenced by frequent exposure to violent or aggressive content in video games. According to the cultivation idea, players who spend a lot of time in violent virtual environments may eventually start acting more aggressively. In video games concepts, cultivation theory suggests that through continuously on playing video games, the view of players on the real world will be related to the world of video games (Chong, Teng and Skoric, 2012). Cultivation theory states that regular exposure to competitive and possibly hostile gaming environments, such as the fast-paced game Mobile Legends, might normalize or reinforce harmful habits. High engagement players could start to see such conduct as normal or acceptable, particularly if they see it in others or themselves during games. From YouTube gaming, even if the viewer is not actively playing, they may develop attitudes and actions that resemble what they see when they watch YouTube gaming material, especially that which displays or condones toxic conduct. As a result of this media exposure, viewers may eventually come to tolerate or embrace toxic conduct themselves, particularly if it is presented as normal or enjoyable. In this study it is proven that the intensity of game playing Mobile Legends and the intensity of YouTube gaming access has a positive and significant influence towards toxic behavior.

Based on the previous research (Kwak et al, 2015), it shows the behavioral dynamics in MOBA games, toxic behavior is more common in games like League of Legends that incorporate competitive ranking systems and demand excellent teamwork and this high interdependence can result in increased frustration when teammates perform poorly or fail to cooperate. Additionally, these games are often competitive and ranked,

meaning that every loss can impact a player's progression and status intensifying emotional on them.