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The Effect of Roblox Playing Intensity on Confidence in Generation Z in the Tangerang Roblox Community

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Abstract

This study aims to analyze the influence of the intensity of playing Roblox on the confidence of Generation Z in the Tangerang Roblox Community. With the rapid development of digital media, online games now play a role not only as entertainment, but also as a space for social interaction that can affect the psychological aspects of individuals. This research is based on Albert Bandura's Social Cognitive Theory, which states that behavior is influenced by the interaction between personal, environmental, and behavioral factors, and is supported by Uses and Gratification Theory to explain the motivation for using digital media. The research approach is quantitative with associative design and positivism paradigms. Data was collected through a Likert scale questionnaire that was distributed to Generation Z members in the Tangerang Roblox Community using probability sampling techniques. The research variables were the intensity of playing Roblox as an independent variable and confidence as a dependent variable. The results of the study are to show the influence of Roblox playing intensity on the confidence level of Generation Z, thus providing an empirical picture of the impact of digital media use on individual psychological and

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social development.

Keywords: Playing Intensity, Roblox, Confidence

INTRODUCTION

In the last 20 years, the development of digital technology has changed the way humans interact, especially in Generation Z known as the "digital generation". As internet access increases, its use has become part of daily life, with the number of internet users in Indonesia reaching 73.7% of the population or around 196.7 million people and the majority of them are teenagers (Hilalludin et al., 2025). This condition encourages the development of various digital platforms, including online games such as Roblox which are not only used as entertainment, but also as a medium to interact and socialize. Interaction in online games allows two-way and multidirectional communication without being limited by space and time, thus forming complex social dynamics (Rhama, 2025). Excessive use of Roblox can also have negative impacts, such as social isolation, addiction, communication disorders in real life, and cyberbullying. On the other hand, virtual interactions in Roblox can also provide emotional support, cooperation, and positive feedback that have the potential to build users' identities and confidence (Azzahra et al., 2025). This condition shows that there are two sides to the use of online games and the importance of examining the relationship between Roblox playing activities and confidence in communication.

Several previous studies have shown that Roblox has a role in the social and emotional development of its users. (Azzahra et al., 2025) found that interactions within Roblox can form virtual communities that support collaboration and communication. (Azizah et al., 2026) found that Roblox can be an emotional space that supports emotional literacy and the formation of digital identities through social interaction. In addition, (Wulandari et al., 2025) showed that collaboration and direct communication features within Roblox can increase empathy as well as reduce stereotypes between users from different cultural backgrounds. Quantitative research (Rhama, 2025) found a significant relationship between the frequency of playing games and the social-emotional behavior of adolescents. However, previous research has largely discussed the impact of Roblox on social behavior, empathy, and emotional aspects in general, while the relationship between the frequency of playing Roblox and confidence in communication has not been studied specifically. In addition, studies that use a correlational quantitative approach to measure the relationship between the two variables are still limited.

Previous research still has some limitations. Most studies focus on social interaction,

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empathy, and emotional behavior without examining self-confidence in communication aspects. In addition, quantitative correlational research on the relationship between psychological aspects and the frequency of playing online games is still limited, while studies on the positive impact of online games have not been empirically tested. Therefore, this study analyzes the relationship between the frequency of playing Roblox and the self-confidence of Generation Z. Theoretically, this research is expected to contribute to the development of social psychology and communication, especially regarding digital interaction and confidence formation. Practically, the results of the study can be a reference for parents, educators, and policymakers in directing the wise use of online games and supporting healthy social development in the digital era.

This study uses the Social Cognitive Theory of Albert Bandura as a grand theory that explains behavior through reciprocal determinism between personal, behavioral, and environmental factors. In this study, Roblox playing activities are seen as behaviors that interact with the digital social environment and are related to personal factors in the form of self-efficacy.

The object of the research is the Tangerang Roblox Community which consists of 1,000 Roblox players. This community was chosen because it has high gaming activities and social interaction, adequate data accessibility, and a clear community structure through Discord and routine activities so as to support the implementation of random sampling. Based on the Slovin formula with an error rate of 5%, a sample of 286 members was obtained.

RESEARCH METHODS

This study uses an associative quantitative method with a positivism paradigm to determine the influence of Roblox playing intensity on Generation Z self-confidence in the Tangerang Roblox Community. The associative quantitative approach is used to determine the relationship and influence between variables based on data obtained from respondents (Sugiyono, 2017). The positivism paradigm is used to obtain objective research results and based on empirical evidence (Everest Turyahikayo, 2021). This research was conducted in the Tangerang Roblox Community which is located at Jalan Dahlia 7 Blok ie 10, Pasar Kemis, Tangerang. The sampling technique uses probability sampling with the random sampling method, so that each member of the population has the same opportunity to become a respondent (Mukti, 2025). The research population is 1,000 Generation Z in the Tangerang Roblox Community based on data from April 9, 2026. Using the Slovin formula at an error rate of 5%, a sample of 286 respondents was obtained (Zulfikar, 2024).

Data collection in this study uses primary data and secondary data. Primary data is data obtained directly from original sources, while secondary data is obtained from previously available

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sources, such as literature studies (Kurniawan, 2016). Primary data was collected through closed questionnaires and observations of research respondents (Hardani, 2021). Questionnaires were used to obtain respondents' answers according to the choices that had been provided, while observation was used to obtain additional information about respondents' behavior (Whayu Purwanza et al., 2022). Participant observations were also conducted to obtain more in-depth data on observed behaviors (Sugiyono, 2023). Furthermore, all data obtained was processed using the SPSS Version 31 application.

Data analysis was carried out using the Likert scale and began with a test of the validity and reliability of the instrument. Next, a normality test was carried out using the Kolmogorov-Smirnov and a linearity test to determine the relationship between independent variables and dependent variables. After the prerequisite test was met, the analysis was continued with a simple linear regression to determine the effect of Roblox playing intensity on self-confidence. The determination coefficient was used to determine the amount of contribution of the free variable to the variable bound by the formula KD = $r^2 \times 100\%$, while the t-test was used to determine the partial influence of the variable. In addition, descriptive analysis was used to describe the results of the study by category, such as high, medium, and low (Arwani, 2024).

RESEARCH RESULTS

1. Validity Test

a. X Validity Test

Table 1.1 X Validity Test Results

Item Instrumen Number	Correlation Coefficient *(rcalculation)*	*rtable*	Remarks
X1	0.635	0.1160	Valid
X2	0.571	0.1160	Valid
X3	0.587	0.1160	Valid
X4	0.634	0.1160	Valid
X5	0.517	0.1160	Valid
X6	0.596	0.1160	Valid
X7	0.521	0.1160	Valid
X8	0.532	0.1160	Valid
X9	0.646	0.1160	Valid

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Source: Processed Researcher & SPSS

Based on table 1.1, the validity test results related to variable X (Roblox playing intensity) in the test of 286 samples, show that all items are declared valid, because the value of the calculation is greater than the rtable (rcalculation > rtable).

b. Y Validity Test

Table 2.2 Y Validity Test Results

Item Instrumen Number	Correlation Coefficient *(rcalculation)*	*rtable*	Remarks
Y1	0.360	0.1160	Valid
Y2	0.504	0.1160	Valid
Y3	0.638	0.1160	Valid
Y4	0.564	0.1160	Valid
Y5	0.377	0.1160	Valid
Y6	0.551	0.1160	Valid
Y7	0.473	0.1160	Valid
Y8	0.457	0.1160	Valid
Y9	0.533	0.1160	Valid
Y10	0.440	0.1160	Valid
Y11	0.622	0.1160	Valid

Source: Processed Researcher & SPSS

Based on table 1.2, the results of the validity test related to the Y variable (confidence in Generation Z) in the testing of 286 samples, showed that all items were declared valid, because the value of the calculation was greater than the rtable (rcalculation > rtable).

2. Reliability Test

Table 2 Reliability Test Results

Variable	Cronbach's Alpha Value	Conbach's Alpha Coefficient	Remarks
Variable X	0.757	0.60	Reliable
Variable Y	0.709	0.60	Reliable

Source: Processed Researcher & SPSS

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From table 2, it can be seen that the X variable (Roblox playing intensity) has a Cronbach's Alpha > value of 0.60, which is 0.757. Therefore, it can be concluded that the Roblox (X) playing intensity variable is reliable and from the results of confidence in Generation Z (Y) in testing 286 samples has a Cronbach's Alpha > value of 0.60, which is 0.709. Therefore, it can be concluded that the confidence variable in Generation Z (Y) is reliable.

3. Normality Test

Table 3 Normality Test Results

One-Sample Kolmogorov-Smirnov Test		
		Unstandardized Residual
N		286
Normal Parameters[a,b]	Mean	.0000000
	Std. Deviation	2.18685897
Most Extreme Differences	Absolute	.046
	Positive	.039
	Negative	-.046
Test Statistic		.046
Asymp. Sig. (2-tailed)		.200[c,d]
a. Test distribution is Normal.		
b. Calculated from data.		
c. Lilliefors Significance Correction.		
d. This is a lower bound of the true significance.		

Source: Data processing results using SPSS Version 31 (2026)

Based on table 3, the test results of 286 samples were obtained with an Asym value. Sig. (2-tailed) of 0.200 is greater than 0.05, so it can be concluded that the residual data in this study meets the assumption of normality. The residual in the regression model is already normally distributed and is suitable for further regression analysis.

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4. Linearity Test

Table 4 Linearity Test Results

ANOVA TABLE							
			Sum of Squares	df	Mean Square	F	SIG.
Confidence * Intensity of Playing Roblox	Between Groups	(Combined)	2419.948	16	151.247	46.459	.000
		Linearity	1932.711	1	1932.711	593.673	.000
		Deviation from Linearity	487.237	15	32.482	9.978	.000
	Within Groups		875.734	269	3.256		
	Total		3295.682	285			

Source: Data processing results using SPSS Version 31 (2026)

From table 4 of the 286 test samples, it is known that the *Linearity value* of 0.000 is less than 0.05. So the relationship between variables is stated to be linear.

5. Simple Linear Regression Test

Table 5

Simple Linear Regression Test Results

Coefficients[a]						
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	17.645	1.561		11.303	.000
	Intensity of Playing Roblox	.786	.039	.766	20.068	.000
a. Dependent Variable: Confidence						

Source: Data processing results using SPSS Version 31 (2026)

The results of table 5 of the simple regression test show the equation Y = 17.645 + 0.786X, which means that every one increase in Roblox Playing Intensity (X) by one unit will

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increase Confidence (Y) by 0.786. Thus, based on 286 samples, there is a significant effect of Roblox Playing Intensity on Confidence in Generation Z.

6. Determination Coefficient Test

Table 6

Determination Coefficient Test Results

Model Summary[b]				
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.766[a]	.586	.585	2.191
a. Predictors: (Constant), Intensity of Playing Roblox				
b. Dependent Variable: Confidence				

Source: Data processing results using SPSS Version 31 (2026)

The results of table 6 of the determination coefficient test in the test of 286 SPSS samples above show that the determination coefficient (R^2) is 0.586, or 0.586 × 100 = 58.6%. This means that the independent variable (X) explains 58.6% of the variation in the bound variable (Y), while the rest is influenced by factors that were not studied by the researcher.

7. T Test

Table 7 T Test Results

Coefficients[a]						
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	17.645	1.561		11.303	.000
	Intensity of Playing Roblox	.786	.039	.766	20.068	.000
a. Dependent Variable: Confidence						

Source: Data processing results using SPSS Version 31 (2026)

Based on the test results of 286 samples in table 7 above, the value of playing intensity of Roblox (X) was obtained as 20,068. Next, determine tTable. The distribution table t is

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searched at α/2 = 0.05 = 0.025 with a free degree of N-k-1 which is 286 – 1 – 1 = 284, then tTable 1,968 is obtained. Because tcount is greater than tTable which is 20,068 > 1,968 and significance value (Sig.) 0.000 < 0.05, it can be concluded that H1 is accepted, which means that there is an influence of Roblox (X) playing intensity on confidence in Generation Z (Y).

8. Descriptive Analysis of Variable

Table 8

Descriptive Analysis of Variable Results

Descriptive Statistics					
	N	Minimum	Maximum	Mean	Std. Deviation
Intensity of Playing Roblox	286	15	44	39.72	3.314
Confidence	286	24	54	48.86	3.401
Valid N (listwise)	286				

Source: Data processing results using SPSS Version 31 (2026)

The results of a descriptive test on 286 samples showed that Roblox Playing Intensity had a minimum value of 15, a maximum of 44, a mean of 39.72, and a standard deviation of 3.31, while Confidence had a minimum value of 24, a maximum of 54, a mean of 48.86, and a standard deviation of 3.40. Since the standard deviation value of the two variables is smaller than the mean value, it can be concluded that the Roblox Playing Intensity and Confidence data have a relatively even distribution.

DISCUSSION

a) The Influence and Impact of Roblox Playing Intensity on Self-Confidence

The results of the study on 286 Generation Z respondents in the Tangerang Roblox Community showed that the intensity of playing Roblox had a significant effect on confidence. A simple linear regression resulted in Y = 17.645 + 0.786X, with a significance of 0.000 (<0.05), t count 20.068 > t table 1.968, and r = 0.766 and R^2 = 0.586. This means that the intensity of playing Roblox has a positive and strong relationship and explains 58.6% of the variation in confidence. This finding can be explained through Social Cognitive Theory, especially the concept of reciprocal determinism (Bandura, 2019), which views behavior, personal factors, and the environment as elements that influence each other.

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The high intensity of play (mean 39.72) and confidence (mean 48.86) showed a relationship between play activities, digital social environment, and personal factors. Through mastery experience, vicarious experience, social persuasion, and physiological and emotional states (Bandura, 2019), repetitive play experiences and social interactions can strengthen self-efficacy. As many as 58.3% of respondents played more than three hours per day and 80.7% interacted every day, so Roblox functions not only as an entertainment medium, but also as a space for social learning and communication.

The process takes place through computer-mediated communication, such as text and voice communication, coordination, negotiation, feedback, and self-presentation (Azzahra et al., 2025). These findings are in line with (Azizah et al., 2026) regarding Roblox as a space for the formation of emotional literacy and digital identity and (Wulandari et al., 2025) regarding the role of collaboration and communication features in increasing empathy. These results also strengthen (Rhama, 2025) the finding of a relationship between Roblox playing frequency and social-emotional behavior. Different from the study, this study showed a more specific magnitude of influence (R^2 = 58.6%) and explained the mechanism through reciprocal determinism. Thus, the influence of Roblox on self-confidence does not solely come from the duration of play, but mainly from the experience and quality of social communication interactions that take place repeatedly in the digital environment.

b) Factors That Affect Confidence Through the Intensity of Playing Roblox

The results showed that the intensity of playing Roblox contributed significantly to self-confidence (regression coefficient = 0.786, significance = 0.000 < 0.05, t count = 20.068 > 1.968). This finding can be explained through the Uses and Gratifications Theory, which views users as active parties in choosing media to meet the needs of entertainment, social, and escapism. The high intensity of playing, shown by 58.3% of respondents who played more than three hours per day, indicated that there is a need to be met that encourages engagement and consistency of use.

This contribution does not solely come from the duration of play, but from the social communication that takes place in it. As many as 80.7% of respondents interact with other players every day through chat, cooperation, and feedback exchange. These repeated interactions become a training space for interpersonal communication, decision-making, negotiation, and expression of opinions that can strengthen self-confidence. In the perspective of Social Cognitive Theory, these social experiences have the potential to form

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confidence through the process of social learning and reciprocal determinism.

This study expands (Rhama, 2025) by placing social interaction as a mechanism that links the intensity of play with self-confidence. The determination coefficient value of 58.6% shows that the research model contributes significantly to the variation in self-confidence, while the other 41.4% is influenced by factors outside the model. Thus, the positive influence of Roblox is more accurately understood as a consequence of social communication and learning experiences that occur during play, rather than solely due to the high duration of use. Therefore, these benefits need to be balanced with social interaction in the real world so that the use of Roblox continues to support adaptive psychosocial development.

CONCLUSION

Based on the results of the study on the influence of Roblox playing intensity on the confidence of Generation Z in the Tangerang Roblox Community, it can be concluded that the intensity of playing Roblox has a significant and positive effect on self-confidence. The result of a simple linear regression resulted in an equation Y = 17.645 + 0.786X with a significance value of 0.000 < 0.05 and t count 20.068 > t table 1.968, so that H1 was accepted and H0 was rejected. The correlation coefficient of 0.766 and the determination coefficient (R^2) of 0.586 showed a strong positive relationship, with Roblox playing intensity explaining 58.6% of the respondents' confidence variation, while 41.4% were influenced by other factors outside the study.

This relationship can be explained through the concept of reciprocal determinism in Social Cognitive Theory, which is the mutual interaction between personal, behavioral, and environmental factors. The high intensity of playing Roblox that goes hand in hand with high self-confidence shows that the three elements form each other through four sources of self-efficacy (Bandura, 2019), namely mastery experience, vicarious experience, social persuasion, and physiological and emotional states. Confidence is not formed solely from the length of time played, but also through communication processes within Roblox, such as coordination, negotiation, giving and receiving feedback, as well as self-presentation through avatars.

According to the Uses and Gratifications Theory, active engagement in Roblox is driven by the fulfillment of affective, social, and escapist needs that strengthen the sustainability of gaming behavior as well as the user's self-confidence. Thus, Uses and Gratifications Theory explains the motives and communication processes that drive active use of Roblox, while Social Cognitive Theory explains how these processes shape confidence. These findings simultaneously strengthen

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and expand the research (Rhama, 2025) through more precise causal explanations based on linear regression (R^2 = 58.6%) as well as the theoretical mechanism that social interaction and digital communication while playing Roblox gradually form self-confidence which can then be reflected in the courage to communicate in real life.

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