Social Media TikTok and Its Impact on Early Adolescents' Academic Concentration

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Article Information	ABSTRACT
	Background: The increasing use of social media among adolescents raises concerns about its impact on learning concentration. Students widely use TikTok because it offers engaging, easily accessible short videos. *Aim:* This study analyzes the relationship between TikTok use and learning concentration among early adolescents. *Method:* The study used a quantitative, correlational, cross-sectional design. The study population comprised N = 193 eighth-grade students at SMP Negeri 1 Kotagajah, with a sample of N = 138 selected via cluster sampling. Data collection was conducted using the Social Media Engagement Scale for Adolescents (SMES-A) with 11 items and a learning concentration scale with 28 items. Data analysis used product-moment correlation and simple linear regression. *Results and Discussion:* The results showed a correlation coefficient of -0.030 with a *p*-value of 0.725 ($p > 0.05$), indicating no significant relationship between the intensity of TikTok use and students' learning concentration. The regression results also showed that social media use accounted for only 0.1% of the variation in learning concentration. *Conclusion:* This finding indicates that social media use is not the main factor influencing students' learning concentration, as it is also influenced by other factors, such as learning motivation, interest in the subject, and the learning environment. **Keywords:** Academic Concentration, Adolescents, Learning Concentration, Social Media Use, TikTok Usage

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INTRODUCTION

The development of digital technology has accelerated adolescents' activity patterns, particularly in social media use (Khairati et al., 2025). Social media is an online platform that allows users to participate, share information, and create various content. Social media encompasses platforms such as blogs, social networks, wikis, forums, and virtual worlds that enable user interaction. Through web-based technologies, social media transforms communication into a more interactive process, enabling dialogue and rapid information exchange (Afandi, 2019).

However, platforms like TikTok are gaining popularity among teenagers because they offer engaging, easily accessible short-form video content (Nugraha et al., 2022). High levels of social media use have the potential to affect adolescents' cognitive abilities, including their ability to focus while studying (Yusran et al., 2021). Research shows that excessive social media use can decrease attention span, increase distraction, and impair cognitive function (Bulut, 2023).

SAs many teenagers access social media, data from the Indonesia Adolescent Health Profile 2024 released by UNICEF, around a third of teenagers in Indonesia (15.5 million people) reported facing mental health challenges including difficulty focusing, while 1 in 20 teenagers (2.45 million people) experienced mental health disorders (Kementrian Pemberdayaan Perempuan dan Perlindungan Anak (Kemen PPPA) & UNICEF Indonesia, 2021).

Learning concentration is an individual's ability to focus optimally during the learning process (Ramadhani, 2021). In general, adolescents can maintain their concentration for 15-50 minutes, depending on the situation and surrounding conditions (Hobbiss et al., 2024). Good concentration is a crucial factor in achieving maximum learning outcomes. Previous research has shown a negative relationship between the intensity of social media use and learning concentration (Rahma et al., 2024). More specifically, (Aini (2023) found that TikTok use has a statistically significant negative relationship with students' learning concentration. Similar results were also found in case studies, which showed that excessive TikTok use causes students to lose focus and makes it difficult to manage study hours (Aubryla et al., 2025).

Based on preliminary observations at SMP Negeri 1 Kotagajah, some eighth-grade students were found to use the TikTok app intensively, both before and after class. Teachers also reported that students were easily distracted, paid less attention to explanations, and had difficulty maintaining focus over relatively long study periods. This situation suggests a link between social media usage habits and student concentration, which needs to be empirically tested.

Most previous research has focused on high school or college students and examined social media or smartphone use in general (Soma et al., 2025). However, research specifically examining the intensity of TikTok use and its relationship to learning concentration among early adolescents at the junior high school level remains limited. Early adolescents have different cognitive and psychological developmental characteristics than late adolescents, and thus likely respond differently to digital distractions and online media exposure. Therefore, studying this phenomenon among junior high school students is important to understand how the use of certain social media platforms may affect their ability to concentrate on learning.

Based on these research gaps, this study aims to analyze the relationship between the intensity of TikTok use and learning concentration among eighth-grade students at SMP Negeri 1 Kotagajah. The results are expected to contribute to the development of guidance and counseling services in schools, particularly by helping students manage their social media use and maintain effective concentration during learning.

METHOD

This research used a quantitative method, employing a correlation approach to investigate the relationship between variables and regression to determine the extent of the relationship. It used a cross-sectional design because data collection was conducted at a single point in time to observe the relationship between variables in the junior high school adolescent population.

The research was conducted through several stages. The first stage was initial observation to identify the phenomenon of TikTok usage and students' learning concentration. The second stage was to determine and create a link to the research questionnaire based on relevant theoretical studies, and to distribute the questionnaire link to respondents. The third stage was to test the instrument's validity and reliability. The fourth stage was data collection using a questionnaire distributed to respondents. The final stage was data processing and analysis to test the relationship between the two research variables.

According to Sugiyono (2019), in the context of this research, the population is defined as the entire object or subject that has a certain number and characteristics, which the researcher has determined as the focus of the study. Thus, the study population comprises 193 students, grouped into 9 classes. According to Sugiyono (2013), the sample is a part of the population's number and characteristics. The sample for this study consisted of 138 students, obtained using the Slovin formula. The sampling technique used a probability sampling method of the cluster type because the research population has been divided into natural groups, namely the classes of class VIII students at SMP Negeri 1 Kotagajah. Divided into 9 classes (8A to 8I). From the 9 clusters, the researcher randomly selected 6 classes, namely 8A, 8B, 8C, 8E, 8F, and 8G. All students in the six classes were used as research respondents. Cluster sampling is a sample collected in the form of groups or sections (clusters) which ideally are a natural combination of elements in the population (Bougie, 2016).

Researchers used two scales validated in the Indonesian context, namely the Social Media Engagement Scale for Adolescents (SMES-A), developed by Ni, Shao, Geng, Qu, Niu, and Wang (2020). They adapted into Indonesian by Rahimmatussalisa et al. The scale consists of 11 items across three dimensions: cognitive, affective, and behavioral engagement. The scale uses a Likert scale of 1–5 and is based on a learning concentration scale compiled by Ramadhan Andri (2022) based on Slameto's theory (2015). This scale consists of 30 statement items that measure three main aspects: cognitive, affective, and psychomotor. This scale uses a Likert scale of 1–5, but when retested for validity, 2 items were invalid, leaving only 28 for the study.

The validity test was conducted using the Product-Moment correlation at a significance level of 0.05 with an r table of 0.1678. All 11 items of the social media usage intensity questionnaire had calculated r values (0.357–0.592) greater than the r value in the table, so it was declared valid. Similarly, in the learning concentration questionnaire, all 28 items had calculated r values (0.315–0.630) greater than the r value in the table, so all items were declared valid and suitable for use.

Reliability testing using Cronbach's Alpha showed that the social media usage intensity instrument had an alpha of 0.723, and the learning concentration instrument had an alpha of 0.874. Both values are greater than 0.70, indicating that the instruments are reliable and have good internal consistency.

The data analysis in this study was conducted through several stages. First, descriptive statistics were used to describe the characteristics of the research variables. Second, prerequisite analyses were conducted, including normality, linearity, and heteroscedasticity tests, to ensure the data met the assumptions required for the regression analysis. After the assumptions were met, a Pearson Product-Moment correlation test was conducted to determine the relationship between the intensity of TikTok social media use and students' learning concentration. Next, a simple linear regression analysis was conducted to determine the magnitude of the relationship and the extent to which social media use contributes to concentration.

RESULTS AND DISCUSSION
Results

Table 1. Description Analysis

	N	Minimum	Maximum	M	SD
Social media	138	22	51	37.84	5.109
Study concentration	138	77	139	101.51	15.327
Valid N (listwise)	138				

Based on the results of the descriptive analysis in the table, the number of research respondents is known.

A total of 138 students participated in the study. The social media usage intensity variable ranged from 22 to 51, with a mean of 37.84 and a standard deviation of 5.109. Meanwhile, the learning concentration variable ranged from 77 to 139, with a mean of 101.51 and a standard deviation of 15.327.

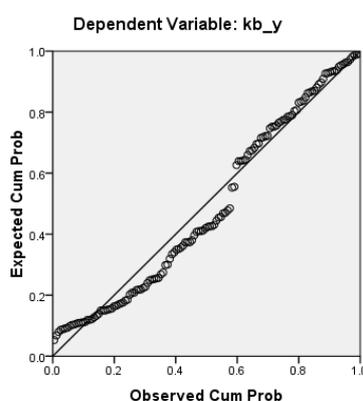Normal P-P Plot of Regression Standardized Residual

Figure 1. Normality Test

Based on the Normal P–P Plot of Regression Standardized Residuals in Figure 1, it can be seen that the points are spread around the diagonal line and follow the direction of the line. This indicates that the residual data are normally distributed; thus, the assumption of normality in the regression model has been met.

Table II. Normality and Linearity Test

	Sig(p)	Description
Kolmogorov-Smirnov Z		
Asymp. Sig. (2-tailed)	.138	Normal distribution
Deviation from Linearity	.664	Linear Distribution

Based on the results of the normality test using Kolmogorov-Smirnov in the table above, it can be seen that the distribution of data for the social media variables and the learning concentration variables is normally distributed with a p-value of 0.138 (p>0.05), which indicates that the social media variables and the learning concentration variables have a normal distribution.

Based on the results of the linearity test in the table between the variables of social media and learning concentration, the deviation from linearity value is 0.664 (>0.05), which means that there is a linear relationship or forms a straight line between the independent variable (social media) and the dependent variable (learning concentration), which is linear.

Table III. Heteroscedasticity Test

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	SE	Beta		
(Constant)	19.019	4.991		3.811	.000
Social media_x	-.156	.131	-.102	-1.193	.235

Based on the heteroscedasticity test results in the table, the p-value is 0.235 (>0.05), so it can be concluded that there is no evidence of heteroscedasticity.

Table IV. Correlation Hypothesis Testing

Variables	Correlations	Sig(p)	Description
Study concentration_y Social media_x	-.030	.725	Hypothesis rejected

Based on the correlation test results in the table above, the correlation coefficient was -0.030 with a significance value of 0.725. This significance value is greater than 0.05, indicating that there is no significant relationship between the intensity of social media use and student learning concentration. Therefore, the research hypothesis stating a relationship between the two variables is rejected.

Table V. Regression Hypothesis Test (F-Test)

Model	Sum of Squares	df	Mean Square	F	Sig.	Description
Regression	29.294	I	29.294	.124	.725ª	Hypothesis rejected
Residual	32153.177	136	236.420			
Total	32182.471	137				

The results of the regression test (F test) yielded an F value of 0.124 and a p-value of 0.725 (p > 0.05), indicating that the use of social media does not have a significant effect on student learning concentration. This strengthens the results of the correlation test. Thus, the research hypothesis is rejected.

Table VI. Coefficient Test (t-Test)

Model	Unstandardized Coefficients	
	B	SE
(Constant)	104.939	9.817
Social media_x	-.091	.257

Based on the results of the simple regression test in the coefficient table, the following regression equation is obtained:
$Y = a + bX$
$Y = 104{,}939 + (-0{,}091)X$
The regression equation shows that the constant value of 104.939 indicates that, when social media use is held constant, student learning concentration is 104.939. Meanwhile, the regression coefficient value of -0.091 indicates that the intensity of social media use has a negative relationship with learning concentration, meaning that a one-unit increase in social media use tends to decrease learning concentration by 0.091. However, with a significance value of 0.725 (p > 0.05), this effect is not statistically significant.

Table VII. Coefficient of Determination Test (R^2)

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
I	.030ª	.001	-.006	15.376

Based on the results of the coefficient of determination test in Table 8, the R-squared value was 0.001. This indicates that the intensity of social media use can explain only 0.1% of the variation in student learning concentration, while the remaining 99.9% is influenced by other factors beyond the variables studied. This value indicates that the contribution of social media use intensity to learning concentration is very small.

Discussion

The results of this study indicate that the intensity of TikTok use was not significantly related to concentration levels among eighth-grade students at SMP Negeri I Kotagajah. This finding indicates that social media use is not a direct factor in determining students' ability to maintain focus during the learning process.

The findings of this study align with research conducted by (Aeni et al. (2025), which showed that social media use had no significant effect on junior high school students' mathematics achievement. The results of the correlation and regression analyses in that study indicated that the relationship

between social media use and learning achievement was weak and statistically insignificant. This suggests that social media use cannot serve as a primary variable in determining student learning success. The results of this study are also supported by research conducted by (Najamuddin et al. (2019), which found no significant relationship between Facebook use and student achievement. Based on the product-moment correlation analysis, the significance value was greater than 0.05, indicating that social media use was not significantly related to student achievement.

However, several previous studies have shown conflicting results. For example, Aini's (2023) study found that TikTok use had a significant negative relationship with students' learning concentration. These results suggest that high levels of social media use have the potential to increase distraction and decrease students' learning focus. However, the results of this study do not fully support these findings. The discrepancies in these findings may be due to several factors, such as differences in respondent characteristics, the learning environment context, and differences in students' social media usage patterns.

Conceptually, learning concentration is a cognitive ability influenced by various interrelated factors. Concentration is influenced not only by external distractions such as social media but also by internal factors within the student. Internal factors such as physical condition, learning interest, intelligence, and learning motivation significantly contribute to determining a student's ability to focus during the learning process. Furthermore, external factors such as family environment, teacher teaching methods, school learning facilities, and social environment also influence students' learning concentration (Ompusunggu et al., 2023).

Thus, social media use is not the sole factor determining adolescents' levels of concentration in learning. In certain contexts, social media can even be a learning tool when used appropriately. Therefore, the influence of social media on learning concentration tends to be contextual and is heavily influenced by how individuals manage their time spent on social media and the purpose for which they use it. The implications of this research's findings suggest that efforts to improve students' learning concentration cannot be focused solely on limiting social media use. A more comprehensive approach is needed that takes into account other factors that contribute to learning concentration, such as increasing student motivation, developing engaging learning methods, and creating a conducive learning environment both at school and at home.

CONCLUSION

Based on the research results, it can be concluded that the intensity of TikTok use on social media does not have a significant relationship with the level of learning concentration among eighth-grade students at SMP Negeri 1 Kotagajah. This finding indicates that social media use cannot be considered a primary factor influencing students' learning concentration. Learning concentration is influenced by various factors, both internal (e.g., learning motivation, interest in the subject matter, physical condition, and students' cognitive abilities) and external (e.g., family support, teacher instructional methods, and the school learning environment). Therefore, improving student learning concentration requires a more comprehensive approach that accounts for the various factors that influence the learning process. Wisely managing social media use remains important, but efforts to improve learning quality also need to focus on strengthening student motivation and creating a conducive learning environment.

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