

THE EFFECT OF THE FREQUENCY OF TIKTOK USE AND STUDENTS' LIFESTYLE ON THEIR CONCENTRATION WHILE STUDYING

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Abstract

This study aims to analyze the relationship between the intensity of TikTok use and students' lifestyles and their concentration while studying in high school. The study employed a quantitative approach with a correlational design using multiple linear regression analysis. The study was conducted at SMAN 1 Mejobo, Kudus Regency, involving 290 students in grades 10, 11, and 12 who were selected using stratified random sampling. Data were collected using a four-point Likert scale questionnaire that measured the intensity of TikTok use, students' lifestyles, and academic concentration. The instrument underwent validity and reliability testing, with an overall Cronbach's alpha value of 0.844. Data analysis was performed using SPSS 23 through classical assumption tests, multiple linear regression, t-tests, F-tests, and the coefficient of determination. The results of the study indicate that the intensity of TikTok use is positively and significantly associated with academic concentration ($\beta = 0.146$; $t = 4.207$; $p < 0.001$). Students' lifestyle also showed a positive and significant relationship with concentration while studying and had a more dominant predictive power ($\beta = 0.773$; $t = 22.219$; $p < 0.001$). Simultaneously, the two variables produced a significant model ($F = 294.153$; $p < 0.001$), with $R = 0.820$ and $R^2 = 0.672$. Thus, the model explains 67.2% of the variation in students' concentration while studying. These findings underscore the importance of a comprehensive approach that integrates social media use management, self-regulation, time management, and the development of an academic lifestyle that supports concentration during study.

Keywords: TikTok, social media usage intensity, student lifestyle, concentration during study, high school students, multiple linear regression

Abstrak

Penelitian ini bertujuan untuk menganalisis hubungan intensitas penggunaan TikTok dan lifestyle siswa dengan konsentrasi belajar siswa sekolah menengah atas. Penelitian menggunakan pendekatan kuantitatif dengan desain korelasional melalui analisis regresi linier berganda. Penelitian dilaksanakan di SMAN 1 Mejobo, Kabupaten Kudus, dengan melibatkan 290 siswa kelas X, XI, dan XII yang dipilih menggunakan teknik stratified random sampling. Data dikumpulkan menggunakan kuesioner skala Likert empat poin yang mengukur intensitas penggunaan TikTok, lifestyle siswa, dan konsentrasi belajar. Instrumen telah melalui pengujian validitas dan reliabilitas, dengan nilai Cronbach's alpha keseluruhan sebesar 0,844. Analisis data dilakukan menggunakan SPSS 23 melalui uji

asumsi klasik, regresi linier berganda, uji t, uji F, dan koefisien determinasi. Hasil penelitian menunjukkan bahwa intensitas penggunaan TikTok berhubungan positif dan signifikan dengan konsentrasi belajar ($\beta = 0,146$; $t = 4,207$; $p < 0,001$). Lifestyle siswa juga menunjukkan hubungan positif dan signifikan dengan konsentrasi belajar serta memiliki kekuatan prediktif yang lebih dominan ($\beta = 0,773$; $t = 22,219$; $p < 0,001$). Secara simultan, kedua variabel menghasilkan model yang signifikan ($F = 294,153$; $p < 0,001$), dengan $R = 0,820$ dan $R^2 = 0,672$. Dengan demikian, model menjelaskan 67,2% variasi konsentrasi belajar siswa. Temuan ini menegaskan pentingnya pendekatan komprehensif yang mengintegrasikan pengelolaan penggunaan media sosial, regulasi diri, manajemen waktu, dan pembentukan lifestyle akademik yang mendukung konsentrasi belajar.

Kata kunci: TikTok, intensitas penggunaan media sosial, lifestyle siswa, konsentrasi belajar, siswa sekolah menengah, regresi linier berganda

INTRODUCTION

Advances in information and communication technology (ICT) have fundamentally transformed the way young people communicate, access information, build social relationships, and engage in academic activities. This digital transformation has turned the internet and social media into more than just communication tools; they have evolved into social and cultural environments that shape the daily behaviors of young people (Harahap et al., 2024). In the context of education, these changes present both opportunities and challenges. On the one hand, digital technology expands access to learning resources, enables more flexible interactions, and provides a variety of more interactive educational content. On the other hand, the intensity of technology use for non-academic activities can create distractions, fragment attention, and alter learning habits—all of which have the potential to disrupt students' cognitive processes. Therefore, the digital transformation in education must be understood not only from the perspective of access to technology but also from the perspective of how technology influences students' behavior and their ability to sustain attention during the learning process (Aini, 2023).

This phenomenon becomes even more significant when considered in the context of social media use by adolescents. Social media has become an integral part of young people's lives because it provides a space for communication, entertainment, self-expression, information-seeking, and the formation of social identity. The high penetration of social media in Indonesia indicates that students live in a highly digitally connected environment. In such an environment, the boundary between academic and non-academic activities becomes increasingly blurred. Students can quickly switch from learning activities to digital entertainment using the same device. This situation has the potential to affect students' ability to control their attention, manage their time, and maintain engagement with academic tasks. Thus, the main issue is not merely whether students use social media, but rather how intensively they use it and how these usage patterns interact with their lifestyles to influence their concentration while studying.

Among various social media platforms, TikTok possesses characteristics that are particularly relevant to this issue. TikTok is a short-form video platform that allows users to access, produce, and share content quickly, interactively, and continuously (Risma et al., 2022). The short-form video format, content recommendation system, personalized user experience, and ease of interaction make TikTok highly appealing to younger audiences. On one hand, these

characteristics can be leveraged for educational purposes. Concise, visual, and creative educational content can help convey specific concepts in a more engaging and accessible way. Several studies have even shown that TikTok has the potential to serve as an alternative learning medium because it allows for the presentation of information in a simple, creative manner that aligns with the digital communication styles of the younger generation (Yenti et al., 2023; Arnisah et al., 2025). However, these benefits are highly dependent on the purpose, patterns, and intensity of use. The same platform can serve as a learning resource when used purposefully, but it can also become a source of distraction when overused for entertainment.

In this context, the intensity of TikTok use becomes a crucial construct to examine. Intensity is not only related to the frequency of opening the app but also encompasses the duration of use, the regularity of use, and an individual's tendency to allocate attention and time to this activity. The higher the intensity of use for non-academic activities, the greater the likelihood that students will experience a competition between their attention toward digital content and their attention toward academic tasks. Adinda et al. (2024) demonstrate that the duration and intensity of device use for non-academic purposes are associated with students' concentration during learning. These findings suggest that high levels of digital exposure may be a factor worth considering when understanding variations in students' ability to sustain attention during learning activities.

The relationship between TikTok use and concentration during learning also requires careful consideration, as TikTok is not inherently negative. The platform can provide educational content, support creativity, and offer students opportunities to learn through formats aligned with their digital culture (Yenti et al., 2023; Arnisah et al., 2025). The issue lies in an imbalance in usage, where consumption of entertainment content becomes dominant and reduces the time and attentional resources that should be allocated to academic activities. In such situations, students may struggle to transition from fast-paced and diverse digital activities to learning activities that require more stable and sustained attention. Therefore, research on TikTok and academic concentration must avoid the simplistic assumption that the existence of TikTok automatically leads to a decline in concentration. What is more important is to examine the relationship between usage intensity and students' capacity to maintain academic concentration.

Academic concentration is a key component of academic success because it determines students' ability to focus on information, understand instructions, process material, and complete tasks effectively. Concentration can be understood as an individual's ability to maintain focus on a specific object or activity by filtering out distractions from irrelevant stimuli. In the learning process, concentration enables students to absorb information optimally and connect new information with prior knowledge. Conversely, poor concentration can cause students to miss important information, make mistakes when completing tasks, and experience difficulty understanding course material (Nasriruddin & Idris, 2022). Therefore, factors that have the potential to disrupt or support student concentration deserve attention in contemporary educational research.

In addition to the intensity of TikTok use, academic concentration may also be influenced by students' lifestyles. Lifestyle not only reflects consumption choices but also illustrates how individuals allocate their time, choose activities, interact with their social environment, use

technology, and form preferences in their daily lives. Munthe and Nasution (2025) explain that lifestyle is related to values, preferences, consumption habits, entertainment choices, dress styles, and patterns of social interaction that distinguish one individual from another. In the context of adolescents, lifestyle develops through interactions with family, peers, the school environment, popular culture, and digital media.

The rise of platforms like TikTok has further strengthened the link between social media and the formation of adolescent lifestyles. TikTok not only provides content to watch but also introduces trends, preferences, consumption patterns, communication styles, forms of entertainment, and models of self-expression that users can emulate. Hakim (2025) indicates that the intensity of TikTok use may be linked to changes in adolescents' lifestyles. Thus, TikTok should be understood as part of the social-digital environment that has the potential to shape students' habits, not merely as an entertainment app. When social media use becomes a dominant part of daily routines, lifestyle changes may emerge in the form of shifts in time-use patterns, activity priorities, entertainment preferences, and how students interact with their social environment.

The relationship between lifestyle and concentration during learning is becoming increasingly relevant because concentration does not occur in a space separate from students' daily lives. Students who maintain a regular lifestyle, manage their time effectively, have clear academic priorities, and are able to limit digital activities are more likely to have conditions that support sustained attention during learning. Conversely, a lifestyle characterized by a dominance of digital entertainment activities, excessive device use, irregular activity patterns, or a strong focus on social media trends may reduce the time and attention available for academic activities. Thus, lifestyle can be viewed as a behavioral context that helps explain why students with the same level of TikTok use may exhibit different levels of academic concentration.

This perspective suggests that the relationship between TikTok and academic concentration should not be analyzed solely through a technology-deterministic approach. The impact of digital media is very likely influenced by user characteristics and the surrounding lifestyle patterns. Two students may have the same duration of TikTok use but exhibit different academic outcomes due to differing habits, preferences, time management, and social interaction patterns. Therefore, incorporating lifestyle as a variable in the research model can provide a more comprehensive understanding of the relationship between social media use and academic concentration. A number of previous studies have provided an empirical basis for the relationship between social media and students' behavior and learning processes. Yulianti and Agustang (2022), for example, demonstrated that social media use is associated with changes in adolescents' social interaction patterns and activities. These findings indicate that social media has broader implications than mere communication, as it can influence how adolescents organize their social activities. In an academic context, Adinda et al. (2024) found that the duration and intensity of device use for non-academic activities are associated with academic concentration. These results reinforce the argument that the use of digital technology needs to be examined based on the intensity and purpose of its use.

Research on TikTok has also yielded diverse findings. Arnisah et al. (2025) emphasized TikTok's potential as a learning tool, demonstrating that the platform can support the educational process if its content and usage are directed toward academic goals. Thus, TikTok

cannot be viewed solely as a hindrance to learning. Rather, the platform has an ambivalent nature: it can serve as both a learning resource and a source of distraction. This perspective is important because it indicates that the relationship between TikTok and learning concentration needs to be empirically tested based on students' actual usage patterns.

Meanwhile, Darmawati's (2025) study places greater emphasis on the relationship between TikTok use and changes in adolescents' lifestyles. These findings suggest that TikTok use has the potential to shape daily habits and preferences. However, the study has not yet integrated lifestyle changes with learning concentration into a single empirical model. Research by Febriyanti et al. (2025) also indicates a relationship between the intensity of social media use and learning motivation; however, its focus has not specifically examined academic concentration and has not included lifestyle as a variable analyzed simultaneously. Based on these studies, there are three main research gaps. First, there is a *construct gap*: research specifically examining the intensity of TikTok use as a predictor of students' learning concentration—rather than general social media use—remains limited. TikTok's characteristics—short-form videos, personalized content, and continuous content consumption—give the platform distinct usage patterns compared to other social media platforms. Therefore, findings regarding social media in general cannot necessarily be directly generalized to TikTok usage.

Second, there is an integration gap. Previous studies have tended to examine the relationship between social media usage and concentration, motivation, or lifestyle changes separately (Adinda et al., 2024; Darmawati, 2025; Febriyanti et al., 2025). There has been little research integrating the intensity of TikTok use and lifestyle within a single analytical framework to explain variations in academic concentration. Yet, social media use and lifestyle are conceptually interrelated. TikTok can shape students' preferences and habits, while lifestyle can influence how students use TikTok. Integrating these two constructs enables research to provide a more comprehensive explanation of the digital and behavioral factors related to academic concentration. Third, there is a contextual gap, particularly regarding the context of secondary education. Some research on social media focuses on adolescents in general or on digital technology use without specifically linking it to the characteristics of high school students. Yet, high school students are at a developmental stage marked by increased independence, the strengthening of social identity, and increasingly intensive use of digital media. The school context also makes the issue of concentration particularly critical, as students are required to maintain their focus on learning in an increasingly competitive environment filled with digital stimuli.

Based on these three gaps, the novelty of this study lies in the development of an empirical model that simultaneously tests the intensity of TikTok use and lifestyle as predictors of high school students' academic concentration. The novelty does not lie solely in the use of TikTok as the subject of research, but in the effort to link the dimensions of digital exposure and behavioral lifestyle in explaining the psychopedagogical outcome of academic concentration. This approach allows the study to move beyond the simple question of whether TikTok has a positive or negative impact on students, toward a more substantive question: how do the intensity of students' engagement with TikTok and their lifestyle patterns collectively relate to their ability to maintain concentration during learning.

The context of SMAN 1 Mejobo is significant in this study because the school serves as the primary environment where students' academic demands and digital lives intersect. Students use digital devices in their daily lives, while simultaneously needing to maintain focus on their studies, complete assignments, and meet academic expectations. These conditions create a need to understand the behavioral factors that may support or hinder concentration during learning. By using students at SMAN 1 Mejobo as the empirical context, this study is expected to generate contextual evidence regarding the relationship between TikTok use, lifestyle, and concentration during learning at the high school level.

Theoretically, this study contributes to the development of research on learning behavior in digital environments by integrating perspectives on social media use and lifestyle. The study does not view technology as the sole determinant of learning behavior but places technology use within the context of students' habits and lifestyle patterns. Practically, the study's findings can help teachers and schools design digital literacy strategies that focus not only on restricting social media use but also on developing self-regulation skills, time management, and the productive use of digital media. For students, the results can serve as a foundation for understanding how digital habits and daily lifestyles may relate to their ability to maintain concentration during learning.

Thus, this study aims to (1) analyze the effect of TikTok usage intensity on students' concentration during learning, (2) analyze the effect of students' lifestyle on concentration during learning, and (3) analyze the simultaneous effect of TikTok usage intensity and lifestyle on the concentration of students at SMAN 1 Mejobo. Based on this conceptual framework, the study tests the hypothesis that the intensity of TikTok use and lifestyle have an effect on academic concentration, both partially and simultaneously. More broadly, this study is expected to enrich the literature on the consequences of social media use among the younger generation by providing a perspective that integrates the intensity of digital platform use, lifestyle patterns, and academic concentration capacity into a single research model.

METHOD

Research Design

This study employs a quantitative approach with an explanatory correlational research design to examine the predictive relationship between the intensity of TikTok use, students' *lifestyle*, and their concentration while studying. Specifically, the study uses multiple linear regression to estimate the partial and simultaneous contributions of the variables TikTok usage intensity (X1) and student *lifestyle* (X2) to academic concentration (Y). This design was chosen because the study aims not only to describe patterns of social media use but also to test whether variations in these two predictor variables are statistically related to variations in students' academic concentration.

The analytical model of the study is formulated as follows:

$$Y = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \varepsilon$$

where Y represents academic concentration, X1 represents the intensity of TikTok use, X2 represents student *lifestyle*, β_0 represents the constant, β_1 and β_2 represent partial regression coefficients, and ε represents the residual or error term. This model enables the study to

identify the direction and magnitude of the relationship between each predictor and learning concentration while evaluating the ability of both predictors collectively to explain the variation in the dependent variable.

Research Setting and Participants

The study was conducted at SMAN 1 Mejobo, Kudus Regency, Central Java, Indonesia, on July 20–24, 2026. Prior to data collection, the researcher obtained research permission and coordinated with school officials as well as the guidance and counseling teacher. These procedures were carried out to ensure that the research process did not disrupt academic activities and proceeded in accordance with the regulations in effect at the school. The study population consisted of all students at SMAN 1 Mejobo in grades X, XI, and XII, totaling 1,061 students. The sample size was determined using the Slovin formula with a 5% *margin of error*, resulting in 290 students selected as research respondents. This sample size was chosen to ensure an adequate sample for regression analysis with two predictor variables. To reduce the possibility of representation bias across grade levels, the study employed proportionate stratified random sampling. The population was first grouped by grade level (X, XI, and XII), and then respondents were randomly selected from each stratum in proportion to the population size of each grade level. This technique was used to ensure that the structural characteristics of the population based on educational level remained represented in the research sample.

Research Instruments

Primary data were collected using a self-administered questionnaire with a four-point Likert scale, namely 4 = Strongly Agree, 3 = Agree, 2 = Disagree, and 1 = Strongly Disagree. The use of four response categories was intended to reduce the tendency of respondents to choose the middle category (*central tendency*) and encourage respondents to provide more specific choices. The questionnaire was developed based on conceptual indicators of three research constructs, namely TikTok usage intensity (X1), student lifestyle (X2), and concentration while studying (Y). Each construct is represented by a number of *favorable* and *unfavorable* statements. The *unfavorable* statements were reverse-scored before the analysis process to ensure the direction of interpretation for all items remained consistent. Before being used in the main survey, the instrument was pilot-tested on 32 11th-grade students who were not included in the research sample. The pilot test was conducted to evaluate the psychometric quality of the instrument, particularly item validity and internal consistency.

Instrument Validity and Reliability

Item validity was evaluated by comparing the item-total correlation coefficient (calculated r) with the table r value at a specified significance level. Of the total 60 items tested, 55 items were deemed valid, while 5 items did not meet the validity criteria and were eliminated from the main research instrument. After the invalid items were removed, the instrument's reliability was evaluated using Cronbach's alpha to test the internal consistency of each construct. The test results showed an alpha value of 0.828 for TikTok usage intensity, 0.770 for *students' lifestyle*, and 0.779 for study concentration. The overall reliability coefficient of the instrument was 0.844. All coefficients were above the minimum threshold of 0.70, which is commonly used as an indicator of acceptable internal consistency in social and

educational research. Thus, the instrument used in the main study demonstrated an adequate level of internal consistency. The entire validity and reliability testing process was conducted using IBM SPSS Statistics 23. In the context of this study, psychometric testing was performed prior to inferential analysis to ensure that the scores used in the regression model had an adequate measurement basis.

Data Collection Procedure

Data collection was conducted by distributing questionnaires to respondents selected through a *stratified random sampling* procedure. Before completing the questionnaire, respondents were provided with an explanation of the study's objectives, the completion procedure, the voluntary nature of participation, and the fact that the data would be used solely for research purposes. Respondents were asked to provide answers based on their own circumstances and experiences, particularly regarding their TikTok usage patterns, *lifestyle* characteristics, and ability to maintain concentration during learning activities. To reduce *response bias*, the researcher emphasized that there were no right or wrong answers and that respondents were expected to provide answers that best represented their actual circumstances. After the questionnaires were collected, the data were checked for completeness before undergoing the *coding*, *scoring*, and statistical analysis processes. *Unfavorable* items were first *reverse-scored* so that all scores would have the same interpretive orientation.

Data Analysis

Data analysis was conducted using IBM SPSS Statistics 23 through several systematic stages. The first stage was descriptive analysis to describe the distribution of scores for each research variable. Descriptive statistics included the minimum, maximum, mean, and standard deviation so that the characteristics of the data could be understood before hypothesis testing was conducted. The second stage was testing the regression assumptions. The normality of the residuals was examined using the Kolmogorov–Smirnov test, while potential heteroscedasticity was evaluated using the Glejser test. Multicollinearity among predictors is examined through the Tolerance and Variance Inflation Factor (VIF) values. Testing these assumptions is crucial because multiple linear regression models require specific statistical conditions so that coefficient estimates and significance tests can be interpreted accurately (Indartini & Mutmainah, 2024).

The third stage is multiple linear regression analysis to test the research model. This analysis is used to determine whether the intensity of TikTok use and students' *lifestyle* can jointly predict variations in study concentration. The regression coefficients for each predictor are used to evaluate the direction and magnitude of each independent variable's relative contribution to the dependent variable. Partial hypothesis testing was conducted using the t-test. This test was used to determine whether the intensity of TikTok use (X1) makes a significant contribution to concentration on learning after controlling for students' *lifestyle*, as well as whether students' *lifestyle* (X2) makes a significant contribution after controlling for the effect of X1. Simultaneous testing was performed using the F-test to determine whether the two independent variables together make a significant contribution to concentration while studying. Furthermore, the coefficient of determination (R^2) was used

to estimate the proportion of the variance in concentration while studying that can be jointly explained by the intensity of TikTok use and students' *lifestyle*. The Adjusted R^2 value was also considered because the research model involved more than one predictor and the sample size used was derived from sample data.

Statistical Decision Criteria

Hypothesis testing was conducted using a significance level of $\alpha = 0.05$. A hypothesis was considered supported if the p -value was < 0.05 . For partial analysis, statistical decisions were based on the results of the t -test, while the overall model test was based on the F -test. The magnitude of the model's effect was interpreted not only based on statistical significance but also based on R^2 /Adjusted R^2 and regression coefficients; thus, the interpretation went beyond simply determining whether the relationship was significant and also considered the extent to which the model could explain the variation in study concentration.

Ethical Considerations

Since the study involved high school students, research ethics were an important part of the research procedures. Data collection was conducted after obtaining permission from the school. Student participation was voluntary, and the information obtained was used for academic purposes. The individual identities of respondents were not used in the reporting of research results; data were analyzed in aggregate form to maintain respondent confidentiality.

RESULTS AND DISCUSSION

1. Classical Assumption Tests

The study data were obtained from 290 students in Grades 10, 11, and 12 at SMAN 1 Mejobo. Before hypothesis testing was conducted, the analysis began with a series of classical assumption tests to determine whether the multiple linear regression model met the required statistical assumptions. The tests included residual normality, heteroscedasticity, and multicollinearity. These procedures are important because the validity and reliability of regression coefficient estimates depend on the fulfillment of the underlying assumptions of the regression model.

Table 1. Results of the Classical Assumption Tests

TEST	INDICATOR	VALUE	CRITERION	INTERPRETATION
NORMALITY	Kolmogorov–Smirnov Asymp. Sig.	0.066	> 0.05	Normal
HETEROSCEDASTICITY	Sig. X1	0.115	> 0.05	No heteroscedasticity
HETEROSCEDASTICITY	Sig. X2	0.716	> 0.05	No heteroscedasticity
MULTICOLLINEARITY	Tolerance X1/X2	0.944	> 0.10	No multicollinearity

MULTICOLLINEARITY	VIF X1/X2	1.059	< 10	No multicollinearity
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Source: SPSS 23 data analysis, 2026.

The Kolmogorov–Smirnov normality test produced an Asymp. Sig. value of 0.066. Because this value exceeds the 0.05 significance threshold, the model residuals can be considered normally distributed. This finding indicates that there is no substantial deviation from residual normality, allowing the regression parameter estimation to proceed. The Glejser heteroscedasticity test produced significance values of 0.115 for TikTok use intensity (X1) and 0.716 for students’ lifestyle (X2). Both values are greater than 0.05, indicating that there is no evidence of heteroscedasticity. Thus, the residual variance can be considered relatively consistent across different levels of the predicted values. Furthermore, the Tolerance value of 0.944 and VIF value of 1.059 for the independent variables indicate that multicollinearity is not a concern. The VIF value, which is very close to 1, suggests that TikTok use intensity and students’ lifestyle do not exhibit excessive linear correlation within the regression model. Taken together, the results of the three assumption tests indicate that the model is statistically adequate for subsequent multiple linear regression analysis.

2. Effects of TikTok Use Intensity and Lifestyle on Learning Concentration

Multiple linear regression analysis was conducted to estimate the relative contributions of TikTok use intensity and students’ lifestyle to learning concentration. The regression estimates are presented in Table 2.

Table 2. Results of the Multiple Linear Regression Analysis

VARIABLE	B	BETA (B)	T	SIG.	DECISION
CONSTANT	19.958	—	—	—	—
TIKTOK USE INTENSITY (X1)	0.129	0.146	4.207	0.000	Significant
STUDENTS’ LIFESTYLE (X2)	0.609	0.773	22.219	0.000	Significant

Source: SPSS 23 data analysis, 2026.

Based on the estimates, the multiple linear regression equation is:

$$Y = 19.958 + 0.129X1 + 0.609X2$$

The positive coefficients for both independent variables indicate that the statistical relationships identified in the sample are in the same direction as learning concentration. The coefficient for X1 (0.129) indicates that a one-unit increase in TikTok use intensity is associated with a 0.129-unit increase in learning concentration, while statistically controlling for students’ lifestyle. Meanwhile, the coefficient for X2 (0.609) indicates that a one-unit increase in students’ lifestyle score is associated with a 0.609-unit increase in learning concentration, while TikTok use intensity is held constant. The partial significance test showed that TikTok use intensity had a *t* value of 4.207 with a significance value of 0.000. This value exceeds the critical *t* value of 1.650 at $\alpha = 0.05$ with 287 degrees of freedom. Therefore, the first hypothesis (H1) was supported. In other words, within the context of this sample, TikTok use intensity was positively and significantly associated with students’ learning concentration. Students’ lifestyle produced a substantially stronger result. The *t* value of 22.219 with a significance value of 0.000 indicates that lifestyle was positively and

significantly associated with learning concentration. Thus, H2 was supported. The findings also demonstrate a substantial difference in the relative strength of the two predictors. The standardized coefficient indicates that lifestyle had a β value of 0.773, whereas TikTok use intensity had a β value of only 0.146. Therefore, lifestyle emerged as the substantially stronger predictor in the model.

3. Simultaneous Effect and Model Explanatory Power

A simultaneous F-test was conducted to determine whether the two independent variables jointly made a statistically significant contribution to learning concentration.

Table 3. Results of the F-Test and Coefficient of Determination

STATISTIC	VALUE	SIG.	INTERPRETATION
F	294.153	0.000	Significant model
F-CRITICAL	3.03	—	—
R	0.820	—	Very strong relationship
R²	0.672	—	67.2% of variance explained

Source: SPSS 23 data analysis, 2026.

The F-test produced an F value of 294.153, substantially higher than the critical F value of 3.03 at $\alpha = 0.05$ with $df_1 = 2$ and $df_2 = 287$. The significance value of 0.000 (<0.05) indicates that the regression model as a whole was statistically significant. Therefore, H3 was supported: TikTok use intensity and students' lifestyle were jointly and significantly associated with learning concentration. The correlation coefficient (R) of 0.820 indicates a very strong relationship between the combined predictors and learning concentration in the sample. Furthermore, the coefficient of determination (R^2) of 0.672 indicates that the model explains 67.2% of the variance in students' learning concentration scores. Accordingly, approximately 32.8% of the variance in learning concentration remains associated with other factors not included in the present model.

4. Main Findings and Interpretation

The primary findings reveal an interesting pattern because TikTok use intensity was positively associated with learning concentration. This result should be interpreted cautiously and should not be taken to mean that greater TikTok use necessarily improves learning concentration. The regression analysis indicates a positive statistical association after students' lifestyle was incorporated into the model; it does not establish a causal effect of TikTok use on learning concentration. This distinction is important because social media use may serve different functions depending on the type of content consumed, the purpose of use, users' self-regulation capacity, and the context in which the platform is used. The magnitude of the lifestyle coefficient provides a more substantive finding. With $\beta = 0.773$, lifestyle emerged as the dominant predictor of learning concentration. This finding suggests that students' overall patterns of living may be more strongly associated with their ability to sustain attention than their intensity of use of a single social media platform. From this perspective, lifestyle encompasses more than consumption patterns or social trends; it also reflects patterns of daily activities, habits, preferences, time management, and the balance between academic and nonacademic activities.

These findings suggest that school-based interventions aimed at improving learning concentration should not focus exclusively on restricting TikTok use. A more comprehensive approach should consider the development of academic lifestyle patterns that support sustained attention, including time management, study discipline, balance between digital and nondigital activities, and students' ability to regulate their attention. Within this framework, TikTok can be understood as one component of students' broader digital environment, whereas lifestyle represents the wider behavioral context within which digital media use occurs. Overall, the study produces three principal findings. First, TikTok use intensity was positively and significantly associated with learning concentration ($\beta = 0.146$; $t = 4.207$; $p < 0.001$). Second, students' lifestyle was positively and significantly associated with learning concentration and demonstrated substantially greater predictive strength ($\beta = 0.773$; $t = 22.219$; $p < 0.001$). Third, the two predictors jointly produced a statistically significant regression model ($F = 294.153$; $p < 0.001$), with $R^2 = 0.672$. Thus, the model explains a substantial proportion of the variance in learning concentration within the study sample, although 32.8% of the remaining variance is attributable to factors outside the scope of the present model.

DISCUSSION

The results of the study show that the intensity of TikTok use and *students' lifestyles* are jointly significantly associated with concentration while studying, with an F-value of 294.153, $p < .001$, and $R^2 = .672$. The research model explains 67.2% of the variation in learning concentration among students at SMAN 1 Mejobo, while the remaining 32.8% is related to other factors not included in the model. This finding is important because it shows that learning concentration should not be understood solely as a consequence of the use or restriction of a single digital platform. Concentration is the result of the interaction of various behavioral and learning environment conditions, including patterns of technology use, daily habits, time management, self-regulation, and academic context. The literature on social media use also indicates that the impact of digital media on learning outcomes is not singular; its benefits or risks depend heavily on the intensity, purpose of use, type of activity, and students' ability to control their digital behavior (Alshuwaiyer et al., 2025).

The first finding warranting attention is the positive and significant effect of TikTok usage intensity on academic concentration ($\beta = .146$, $t = 4.207$, $p < .001$). This result differs from the simplistic assumption that the higher the social media usage, the lower the academic concentration. However, this finding cannot be interpreted as evidence that TikTok causally improves concentration. Since the study design employed a cross-sectional survey and multiple linear regression, the positive coefficient indicates a statistical association after *lifestyle factors* are controlled for, not a cause-and-effect relationship. This interpretation is important because TikTok can be used for entertainment, communication, information-seeking, or learning. The study by Faradis and Reksiana (2022), for example, found a significant relationship between TikTok use and concentration while studying, but its contribution to concentration was relatively limited, at 7.1%. Thus, the direction of the positive relationship in this study still needs to be interpreted within the context of the characteristics of the TikTok usage intensity indicators used.

One possible explanation is that TikTok use is not always synonymous with the consumption

of non-academic content. The characteristics of short videos, visual elements, audio, and concise information delivery allow the platform to be used for quickly acquiring knowledge. A study by Xavierine and Shanthi (2024), for example, showed that students view TikTok as having potential as a learning tool because its content can be presented in an engaging and easily accessible manner. Similarly, research on the use of TikTok in learning indicates that the platform can enhance attention and engagement when its content is designed with clear pedagogical objectives. Therefore, the positive relationship found in this study likely reflects the characteristics of TikTok usage among some respondents, including the possibility of using it to access information or educational content, rather than merely the duration of use.

Nevertheless, these results must be viewed from a more critical perspective. Usage intensity and quality of use are two distinct constructs. Students who use TikTok intensively may access educational content, but other students may spend the same amount of time on entertainment content unrelated to learning. In fact, research on perceptions of TikTok usage time indicates that users are not always accurate in estimating how long they use the platform, meaning perception-based measurements have certain limitations (Goetzen et al., 2023). Since this study used a questionnaire rather than *digital trace data* or actual device usage data, the positive result for X1 should not be used to conclude that increasing TikTok duration will improve concentration. Future research should distinguish between duration, frequency, purpose of use, content type, and patterns of compulsive use.

The second finding indicates that students' lifestyle is a far stronger predictor of academic concentration than the intensity of TikTok use. The standardized coefficient of $\beta=.773$ and $t=22.219$, $p<.001$, indicate a very large relative contribution to the model. Conceptually, these results suggest that academic concentration is more closely related to students' overall lifestyle patterns than to mere exposure to a single app. *Lifestyle* can encompass how students allocate their time, manage academic and social activities, establish study habits, use technology, and maintain a balance between school demands and personal activities. Thus, the research findings shift the focus from a *single-platform effect* perspective toward a behavioral ecology perspective—namely, that learning behavior occurs within the ecosystem of daily habits.

The prominence of *lifestyle* can also be explained through the concept of self-regulated learning. Students with more structured lifestyles tend to have a greater capacity to set goals, manage time, control distractions, monitor behavior, and evaluate learning achievements. Studies on self-regulated learning in digital environments indicate that task strategy management, self-evaluation, the structure of the learning environment, and time management are crucial components of the self-regulated learning process. In the context of this study, students who are able to maintain a study routine and manage their digital activities in a balanced manner are likely better able to sustain their attention during learning. In other words, technology does not automatically act as a distractor; its impact is influenced by the user's capacity for behavioral regulation.

This relationship also helps explain why *lifestyle* has a significantly larger beta coefficient than TikTok. TikTok is one component of students' digital environment, whereas *lifestyle* represents a broader pattern of behavior. If students have poor time management, lack of sleep, excessive social activities, irregular study habits, and uncontrolled use of digital

devices, then restricting TikTok alone is unlikely to be sufficient to improve concentration. Conversely, if students have good study routines and self-regulation skills, social media use can be incorporated into daily activities without necessarily interfering with the learning process. A recent systematic review also indicates that the relationship between *screen time*, social media, and academic performance is highly context-dependent and depends on how these platforms are used; use within certain limits does not necessarily result in negative academic consequences (Alshuwaiyer et al., 2025).

Simultaneous findings with $R = .820$ and $R^2 = .672$ offer interesting theoretical implications. The high correlation coefficient indicates that the combination of these two predictors has a strong relationship with learning concentration in the study sample. However, an R^2 of 67.2% does not mean that TikTok and lifestyle causally determine 67.2% of students' learning concentration. This figure indicates the proportion of variation in concentration scores that can be statistically explained by the model used. The 32.8% of unexplained variance suggests that learning concentration is likely also related to other factors, such as academic motivation, the quality of teacher instruction, homework load, psychological conditions, family environment, sleep quality, environmental noise, interest in the subject matter, and self-regulation skills. Therefore, this research model is more appropriately viewed as a contextual predictive model rather than a deterministic model.

The study's findings also have important implications for the use of TikTok in education. TikTok can serve as a source of information and a learning medium if its use is guided by pedagogical principles. Research on TikTok as a learning medium shows that short-form video formats can enhance attention and engagement when content is presented in a relevant and engaging manner. However, schools should not adopt TikTok uncritically. Teachers need to help students distinguish between educational and entertainment content, evaluate the credibility of information, manage their screen time, and avoid *multitasking* while studying. Thus, digital literacy and *self-regulation* are more important than simply banning the platform.

From a guidance and counseling perspective, the findings regarding the dominance of *lifestyle* content provide a strong foundation for developing behavioral change-based interventions. Guidance and counseling teachers should not only advise students to reduce their TikTok use but also assess students' daily activity patterns, time management, study habits, digital device usage, and ability to control distractions. Programs can focus on *digital self-management*, creating study schedules, setting limits on social media use, *attention management*, and establishing realistic academic routines. This approach is more consistent with the research findings because the most dominant variable is not merely the intensity of TikTok use, but rather students' overall lifestyle.

From a methodological perspective, the research results must also be understood in light of their limitations. Data collection was conducted using a *self-report* questionnaire, so the possibility of *recall bias* and *social desirability bias* remains. Furthermore, the study was conducted at a single school using a non-experimental design; therefore, generalizations to a broader population of high school students should be made with caution. The positive coefficient for X1 may also be influenced by the characteristics of the instrument, particularly if the intensity indicator does not fully distinguish between educational and non-

educational use. Future research could strengthen the evidence by using a longitudinal design, actual *screen-time* data, *experience sampling*, or *digital traces*, as well as by including mediators such as *self-regulated learning*, *attention control*, and learning motivation. Such an approach would help explain not only whether TikTok is related to concentration, but also why, when, and under what conditions this relationship occurs.

Overall, this study demonstrates that the relationship between social media and academic concentration is far more complex than the assumption that TikTok use is always detrimental to academic performance. TikTok usage intensity shows a positive but relatively weak association, whereas students' lifestyles show a much stronger positive association with academic concentration. These findings position lifestyle as a strategic factor in understanding students' concentration and simultaneously highlight that the impact of digital media must be analyzed based on the context of its use. The study's main contribution lies in the integration of digital and behavioral factors into a single regression model within the context of Indonesian high school students. In practical terms, improving academic concentration should not be achieved solely through a restrictive approach toward TikTok, but rather through strategies that combine digital literacy, self-regulation, time management, study habits, and productive use of technology.

CONCLUSION

This study shows that the intensity of TikTok use and students' *lifestyle* have a significant relationship with the study concentration of students at SMAN 1 Mejobo. Partially, the intensity of TikTok use is positively and significantly related to study concentration, with a β value of 0.146, $t = 4.207$, and $p < 0.001$. These findings suggest that TikTok use in the context of this study is not automatically associated with a decrease in concentration, although this relationship cannot be interpreted as causal evidence that TikTok improves concentration. Students' *lifestyle* showed a stronger relationship, with $\beta = 0.773$, $t = 22.219$, and $p < 0.001$, thus emerging as the dominant predictor in the model. Taken together, the two variables produced a significant model ($F = 294.153$; $p < 0.001$), with $R = 0.820$ and $R^2 = 0.672$. This means the model explains 67.2% of the variation in study concentration, while 32.8% is attributed to other factors outside the model. These findings underscore the importance of a comprehensive approach that focuses not only on restricting TikTok use but also on fostering a healthy academic *lifestyle*, time management, self-regulation, a balance between digital and academic activities, and the management of students' attention.

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