

The Relationship Between TikTok Usage Intensity and Students Learning Productivity and Academic Achievement

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Abstract

This study examines the relationship between the intensity of TikTok usage and the academic productivity and achievement of university students. As short-form video platforms increasingly dominate students' daily routines, concerns have emerged regarding their potential influence on study habits, concentration, and task completion. A quantitative survey design was employed, involving 60 undergraduate students who completed a structured questionnaire measuring daily TikTok usage duration and nine indicators of academic productivity using a five-point Likert scale. Data were analysed descriptively and through Spearman's rank-order correlation to examine the association between usage intensity and perceived academic impact. The results show that the majority of respondents (74 percent) used TikTok between one and four hours per day, and most agreed that TikTok use contributed to task procrastination and reduced concentration while studying. However, students also reported a relatively strong ability to manage their time and complete assignments punctually. Contrary to the initial hypothesis, the correlation analysis revealed no statistically significant relationship between usage duration and either perceived negative impact or self-regulation ability. These findings suggest that academic productivity is more strongly influenced by usage patterns and self-regulation skills than by the sheer duration of TikTok use. The study is limited by its small and gender-imbalanced sample, warranting further research with larger and more diverse student populations.

Keywords : TikTok, Academic, Productivity, Achievement, Students

INTRODUCTION

The rapid development of digital technology has changed the way people communicate, obtain information, and carry out everyday activities. With the expansion of internet access, social media has become part of daily life, particularly among university students. Students use social media not only to communicate with friends and family but also to access information, share experiences, seek entertainment, and support their learning activities. Easy access through mobile devices has made social media one of the most frequently used digital platforms among young adults, creating new opportunities as well as challenges for higher education (Mardiana, 2026).

Among the many social media platforms, TikTok has experienced remarkable global growth. The platform offers short-form videos covering entertainment, education,

business, health, lifestyle, and current issues. Its recommendation algorithm delivers personalized content that encourages continuous viewing, often leading users to spend more time on the platform than intended. Consequently, TikTok has become one of the most popular social media platforms among adolescents and university students, making it increasingly relevant in discussions of students' academic behaviour (Liu et al., 2025; Miedzobrodzka et al., 2024).

TikTok offers opportunities for learning as well as potential academic challenges. Educational creators use the platform to share instructional content, practical skills, and academic information in short, engaging videos. Many students also use TikTok to explore new topics, develop skills, and access learning resources outside the classroom. Previous studies suggest that educational and informative TikTok content can enhance students' academic motivation and engagement when used purposefully (Febriyanti et al., 2025; Mardiana, 2026). Similarly, Komarudin et al. (2026) reported that TikTok use was not a significant predictor of students' learning interest, indicating that its educational influence depends largely on how the platform is used rather than on its presence alone.

Despite these potential benefits, excessive or poorly regulated TikTok use may interfere with students' learning activities. Frequent exposure to entertaining content can reduce concentration, encourage multitasking during study sessions, and increase academic procrastination (Lailah et al., 2025; Miedzobrodzka et al., 2024). Longitudinal evidence further suggests that problematic TikTok use is associated with lower school engagement through reduced self-control (Liu et al., 2025), while other studies have linked problematic use to lower academic performance through academic burnout and related behavioural factors (Yan & Wang, 2026). These findings indicate that the academic consequences of TikTok use may be influenced more by behavioural regulation than by platform use itself.

University students are expected to balance lectures, assignments, group projects, and examinations while managing their time effectively. In this context, self-regulation plays an important role in determining whether social media functions as a learning resource or a source of distraction. Research has shown that students with stronger self-control are generally better able to regulate their social media use, maintain academic responsibilities, and minimize potential negative effects on learning (Aprianti & Wijaya, 2026). Likewise, Mardiana (2026) found that purposeful social media use supported academic engagement, whereas excessive and poorly managed use increased academic distraction.

Recent empirical evidence has produced inconsistent findings regarding the relationship between TikTok use and academic outcomes. Some studies have reported positive associations between TikTok use and students' academic motivation or learning engagement, particularly when educational content is consumed intentionally (Febriyanti et al., 2025; Mardiana, 2026). In contrast, other studies have demonstrated that problematic TikTok use contributes to academic procrastination, reduced school engagement, and lower academic performance (Lailah et al., 2025; Liu et al., 2025; Yan & Wang, 2026). However, several studies found no significant relationship between general

social media use or TikTok use and students' academic outcomes, suggesting that usage patterns, self-control, and time management may explain academic functioning better than usage duration alone (Aprianti & Wijaya, 2026; Komarudin et al., 2026). Similar conclusions have also been reported in studies of smartphone use, where academic outcomes were found to depend more on students' self-control and productive technology use than on usage intensity itself (Ratu et al., 2026).

Although previous research has substantially expanded understanding of TikTok use among students, most studies have focused on problematic TikTok use, social media addiction, academic motivation, school engagement, or academic performance (Liu et al., 2025; Yan & Wang, 2026). Comparatively little attention has been given to whether TikTok usage intensity, measured as the amount of time students spend using the platform, is associated with their perceived academic impact. Distinguishing usage intensity from problematic use is important because prolonged exposure does not necessarily indicate impaired self-control or adverse academic consequences (Aprianti & Wijaya, 2026; Miedzobrodzka et al., 2024).

Based on this research gap, the present study examines the relationship between TikTok usage intensity and students' perceived academic impact. By focusing specifically on usage duration rather than problematic use or addiction, this study contributes empirical evidence to clarify whether the amount of time spent on TikTok is associated with students' academic functioning. The findings are expected to contribute to a better understanding of responsible social media use and provide practical implications for promoting healthy digital habits in higher education

METHOD

This study employed a quantitative cross-sectional survey design to examine the relationship between TikTok usage intensity and students' learning productivity and academic achievement. A total of 60 active undergraduate students at a university in Indonesia were selected through purposive sampling based on two criteria: being active students and regular TikTok users. Data were collected through a Google Forms questionnaire consisting of demographic information, daily TikTok usage intensity (six duration categories), and ten five-point Likert-scale statements measuring students' perceptions of TikTok's academic impact, including study habits, concentration, academic procrastination, time management, task completion, and willingness to reduce usage. For the correlation analysis, questionnaire responses were aggregated into two composite dimensions: negative academic impact (distraction, concentration disruption, procrastination, reduced study time, and perceived effects on learning productivity) and self-regulation (time management, task completion, and willingness to reduce TikTok use), with scores calculated by averaging the corresponding items. The questionnaire was distributed online after informed consent was obtained, and responses were collected anonymously. Data were analysed using Python (Pandas and SciPy). Descriptive statistics were used to summarise the data, while Spearman's rank-order correlation examined the relationships between TikTok usage intensity and the two composite dimensions at a significance level of $\alpha = 0.05$.

FINDINGS AND DISCUSSION

Table 1 presents the demographic characteristics and daily TikTok usage intensity of the respondents. Female students accounted for 83.3% of the sample, while most respondents (95.0%) were aged 19–20 years and enrolled in the third semester (95.0%). Regarding TikTok use, 74.0% of respondents reported using the application for 1–4 hours per day, whereas 11.7% used it for more than 5 hours daily and only 5.0% reported using it for less than 1 hour. These findings indicate that moderate daily TikTok use was common among the participants, providing an appropriate context for examining its perceived academic impact.

Table 1. Demographic profile and TikTok daily usage intensity of respondents

No	Characteristic	Category	n	%
1	Gender	Female	50	83.3
		Male	10	16.7
2	Age	17-18 Years	2	3.3
		19-20 Years	57	95.0
		21-22 Years	1	1.7
		Semester 1	1	1.7
3	Semester	Semester 2	1	95.0
		Semester 3	57	1.7
		Semester 4	1	1.7
		Less than 1 Hour	3	5.0
4	Daily TikTok Usage Duration	1 - 2 hours	13	21.7
		2 - 3 hours	17	28.3
		3 - 4 hours	13	21.7
		4 - 5 hours	7	11.7
		More than 5 hours	7	11.7

In this study, academic impact refers to students' self-perceived learning behaviours associated with TikTok use, including study habits, concentration, procrastination, time management, task completion, and willingness to reduce usage, rather than objective indicators such as GPA or examination scores. Table 2 presents the mean scores for each questionnaire item. All items obtained mean scores ranging from 3.63 to 4.12, indicating general agreement with the statements. The highest mean score was found for daily TikTok use ($M = 4.12$, $SD = 1.03$), suggesting that frequent use was common among respondents. Relatively high scores were also observed for spending more time on TikTok than intended ($M = 3.90$, $SD = 1.17$) and postponing academic tasks ($M = 3.90$, $SD = 1.13$), indicating that many students perceived TikTok as contributing to procrastination. At the same time, respondents also reported relatively strong self-regulatory behaviours, including completing academic tasks on time ($M = 3.85$, $SD = 1.15$), managing TikTok usage ($M = 3.78$, $SD = 1.22$), and willingness to reduce TikTok use

to improve productivity ($M = 3.88$, $SD = 1.28$). These findings suggest that students perceived both negative academic consequences and adaptive self-regulatory responses, highlighting the complexity of TikTok use in academic settings.

Table 2. Mean and standard deviation of perceptions score per item

N0	Statement	Mean	SD
1	Used TikTok almost every day	4.12	1.03
2	Spends more time than planned	3.90	1.17
3	Opens TikTok while studying/doing coursework	3.63	1.15
4	Procrastinates on academic tasks	3.90	1.13
5	Finds it harder to concentrate after prolonged use	3.75	1.13
6	Able to manage TikTok usage time	3.78	1.22
7	TikTok affects productivity in completing tasks	3.75	1.19
8	Still completes tasks on time	3.85	1.15
9	TikTok reduces study time	3.67	1.19
10	Willing to reduce usage to improve productivity	3.88	1.28

Figure 1. Mean perception scores for each statements (P1 – P10)

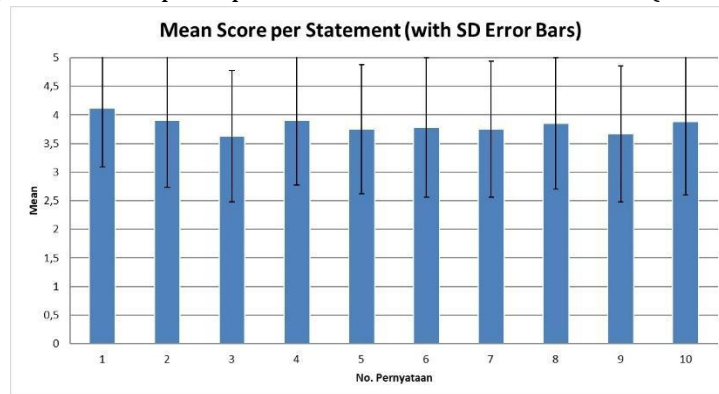


Table 3 presents the results of Spearman's rank-order correlation analysis. Daily TikTok usage duration was not significantly associated with either the negative academic impact dimension ($r_s = -0.126$, $p = 0.336$) or the self-regulation dimension ($r_s = 0.132$, $p = 0.314$). However, a significant positive correlation was found between negative academic impact and self-regulation ($r_s = 0.507$, $p < 0.001$). This finding indicates that students who perceived greater academic disruption also reported stronger efforts to regulate their TikTok use and academic behaviour.

Table 3. Spearman's rank-order correlation results

Variables	Spearman's r_s	p-value	Interpretation
TikTok usage duration ↔ Negative academic impact	-0.126	0.336	Not significant
TikTok usage duration ↔ Self-regulation	0.132	0.314	Not significant

Negative academic impact ↔ Self-regulation	0.507	<0.001	Moderate positive correlation
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The absence of a significant relationship between TikTok usage duration and either perceived academic impact or self-regulation suggests that the amount of time spent on the platform alone does not adequately explain students' academic experiences. Students who use TikTok for longer periods do not necessarily perceive greater academic disruption, nor do they demonstrate weaker self-regulatory behaviour. This finding implies that the quality, purpose, and context of TikTok use may be more influential than usage duration itself. For example, students who access TikTok primarily during breaks or after completing academic tasks may experience fewer negative academic consequences than those who use it while studying. This interpretation is supported by Pozzo et al. (2024), who found that TikTok enhanced students' academic performance when integrated as a learning tool among learners who were already familiar with the platform, whereas limited experience with TikTok resulted in less favourable learning outcomes. These findings indicate that the educational effects of TikTok depend on how the platform is used rather than on the amount of time spent using it.

The present findings are also consistent with previous studies reporting that usage intensity alone is a relatively weak predictor of academic outcomes. Sinaga et al. (2025) found only a weak association between TikTok use and students' academic achievement, suggesting that TikTok contributes only marginally to variations in academic performance. Likewise, Irawati et al. (2025) reported that TikTok addiction did not directly predict academic performance but influenced it indirectly through academic procrastination. Similarly, Mat Said et al. (2025) demonstrated that distraction was more strongly associated with academic performance than TikTok usage itself, indicating that students' cognitive and behavioural responses play a more important role than the duration of platform use. Collectively, these studies reinforce the present finding that academic functioning cannot be explained solely by the amount of time students spend on TikTok.

The significant positive relationship between perceived negative academic impact and self-regulation provides additional insight into students' behavioural responses. Rather than indicating poorer self-regulation among students experiencing academic difficulties, this relationship may reflect increased awareness of the consequences of excessive TikTok use. Students who recognised that TikTok interfered with their concentration, study time, or task completion also reported greater efforts to regulate their usage, complete assignments on time, and reduce unnecessary engagement with the platform. This pattern suggests that self-regulation may function as an adaptive response to perceived academic challenges rather than simply as a stable personal characteristic. A recent systematic review by Yang et al. (2026) similarly concluded that TikTok can simultaneously support learning motivation and academic performance while challenging students' self-regulation and academic focus when exposure to non-educational content is poorly managed. These findings further highlight the importance

of behavioural regulation in determining whether TikTok functions as a learning resource or a source of distraction.

Overall, these findings are consistent with self-regulation theory, which proposes that academic outcomes are influenced not only by environmental stimuli but also by individuals' ability to regulate attention, behaviour, and time. Consequently, prolonged exposure to TikTok does not inevitably lead to lower academic functioning. Instead, the academic consequences of social media use appear to depend on students' capacity to manage their digital behaviour, minimise distractions, and engage with digital content in purposeful ways. This perspective explains why usage duration alone was not significantly associated with either perceived academic impact or self-regulation in the present study.

CONCLUSION

This study demonstrates that TikTok usage duration alone is not significantly associated with students' perceived academic impact or self-regulation, suggesting that the amount of time spent on the platform is a less important predictor of academic functioning than students' ability to manage their learning behaviours and digital engagement. The findings contribute to the growing literature by highlighting the importance of self-regulation in explaining why frequent TikTok use does not necessarily translate into poorer academic outcomes. Practically, the results suggest that universities and educators should prioritize interventions that strengthen students' time management, self-regulation, and responsible social media use rather than focusing solely on reducing screen time. Nevertheless, the study is limited by its relatively small sample size, gender imbalance, reliance on self-reported perceptions, and data collected from a single university, which may limit the generalizability of the findings. Future research should involve larger and more diverse samples, incorporate objective indicators of academic performance alongside self-reported measures, and examine additional factors such as learning motivation, self-control, academic stress, and digital literacy to better explain the relationship between social media use and students' academic functioning.

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