

## THE RELATIONSHIP BETWEEN TIKTOK VIEWING INTENSITY AND STUDENTS' LEARNING CONCENTRATION

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### Abstract

*The development of social media, particularly TikTok, has become part of students' daily lives and has the potential to impact the learning process. This study aims to determine the relationship between TikTok viewing intensity and students' learning concentration. This study used a quantitative method with a correlational approach. Data were obtained from 51 respondents via questionnaire and analyzed using a Pearson correlation test using RStudio software. The analysis results showed a correlation coefficient of  $r = 0.121$  with a significance value of  $p = 0.397$  ( $p > 0.05$ ). These results indicate that the relationship between TikTok viewing intensity and students' learning concentration is very weak and insignificant. Therefore, it can be concluded that TikTok viewing intensity does not have a significant relationship with students' learning concentration.*

**Keywords:** TikTok, viewing intensity, learning concentration, Pearson correlation

### Abstrak

Perkembangan media sosial, khususnya TikTok, telah menjadi bagian dari kehidupan sehari-hari siswa dan berpotensi memengaruhi proses belajar. Penelitian ini bertujuan untuk mengetahui hubungan antara intensitas menonton TikTok dengan konsentrasi belajar siswa. Penelitian ini menggunakan metode kuantitatif dengan pendekatan korelasional. Data diperoleh dari 51 responden melalui kuesioner dan dianalisis menggunakan uji korelasi Pearson dengan bantuan perangkat lunak RStudio. Hasil analisis menunjukkan nilai koefisien korelasi sebesar  $r = 0,121$  dengan nilai signifikansi  $p = 0,397$  ( $p > 0,05$ ). Hasil tersebut menunjukkan bahwa hubungan antara intensitas menonton TikTok dan konsentrasi belajar siswa tergolong sangat lemah dan tidak signifikan. Dengan demikian, dapat disimpulkan bahwa intensitas menonton TikTok tidak memiliki hubungan yang signifikan dengan konsentrasi belajar siswa.

**Kata Kunci:** TikTok; intensitas menonton; konsentrasi belajar; korelasi Pearson.

## I. INTRODUCTION

The development of information and communication technology in the digital era has brought about rapid changes in various aspects of human life, including education. Technological progress is marked by the increasing use of digital devices such as smartphones and computers, as well as increasingly widespread and accessible internet

access for various groups of people, including students. This situation makes digital technology not only a tool but also an integral part of students' daily lives. On the one hand, technological advances provide easy access to information and support the learning process, but on the other hand, they also present new challenges related to students' focus, attention, and concentration.

Social media is one of the main products of digital technology development, significantly influencing students' behavioral patterns and lifestyles. Social media functions not only as a means of communication but also as a medium for entertainment, self-expression, and a source of information that is used intensively. Kaplan and Haenlein (2010) explain that social media allows users to interact, share, and consume content quickly and continuously. The increasingly widespread use of social media exposes students to a variety of digital content almost without time limits, potentially impacting their study habits and ability to maintain concentration.

One social media platform that has seen rapid growth in popularity in recent years is TikTok. TikTok is a short-form video-based app that delivers fast, engaging, and addictive audio-visual content. According to Anderson (2020), TikTok is designed with an algorithm that adapts content to user interests, encouraging extended app usage. This characteristic makes TikTok highly popular among teenagers and students, who tend to spend their free time watching various entertainment content on the platform.

The high frequency of TikTok viewing among students raises concerns, particularly regarding its impact on the learning process. High levels of social media use are often associated with decreased student attention to academic activities. According to Lepp, Barkley, and Karpinski (2015), excessive use of digital devices can disrupt learning focus and lead to lower academic achievement. This occurs because students tend to divide their attention between learning activities and consuming digital content, which ultimately can reduce the quality of their concentration.

In the context of education, concentration in learning is a key factor determining students' success in understanding course material. Slameto (2015) states that concentration in learning is an individual's ability to focus fully on learning activities while ignoring other irrelevant stimuli. Good concentration allows students to optimally absorb information, while

poor concentration can hinder the learning process and the achievement of learning objectives.

Several previous studies have shown that excessive use of social media has the potential to reduce concentration skills. Rosen et al. (2014) found that multitasking habits triggered by digital media use can reduce an individual's ability to maintain attention over long periods. Rapid and repeated exposure to digital content, such as short videos on TikTok, can form short-term attention patterns that are less conducive to learning activities that require sustained focus.

However, not all studies indicate that social media always has a negative impact on concentration in learning. Abbas et al. (2019) stated that the influence of social media on students' learning behavior depends heavily on the purpose of use, intensity, and the individual's ability to manage time and self-control. Social media can also provide positive benefits when used appropriately, for example, as a means of entertainment to reduce stress or as a learning aid.

Furthermore, Zhang and Zhu (2020) stated that the relationship between social media use and learning concentration is complex and does not always show statistical significance. Other factors such as learning motivation, the learning environment, social support, and students' psychological state also play a role in determining their level of learning concentration. Therefore, the intensity of TikTok viewing cannot be viewed as the sole factor influencing students' learning concentration.

TikTok's short, engaging content, and its rich visual and audio stimulation are also factors worth considering. According to Carr (2010), constant exposure to digital information can change how individuals process information and maintain attention. The habit of consuming short content has the potential to affect students' ability to concentrate on learning material that requires longer and deeper attention.

On the other hand, students often use TikTok as a means of relaxation and entertainment after studying. According to Przybylski et al. (2013), moderate digital media use can help individuals reduce boredom and improve mood. Therefore, the impact of TikTok on learning concentration is not always negative, but rather depends on how students manage the intensity and duration of its use.

The differing findings from various studies indicate that the relationship between TikTok viewing intensity and students' learning concentration still requires more in-depth empirical study. Research using a quantitative approach and statistical analysis is needed to obtain an objective picture of the relationship between the two variables. A correlational approach is considered appropriate for measuring the strength and direction of the relationship without manipulating the variables being studied.

Based on this description, this study was conducted to determine the relationship between TikTok viewing intensity and students' learning concentration. This research is expected to provide theoretical contributions to the development of education and digital media studies, as well as provide practical benefits for educators, parents, and students in managing social media use so that it does not disrupt the learning process.

## II. RESEARCH METHODS

This study used a quantitative approach with a correlational design. This approach aims to determine the existence or absence of a relationship between two research variables without manipulating the variables themselves.

The study subjects were 51 respondents (N = 51). The data used were primary data obtained through questionnaires distributed to respondents. The variables in this study consisted of variable X as the independent variable and variable Y as the dependent variable. The score for each variable was obtained by summing the scores on the questionnaire items completed by the respondents.

Data analysis was performed using the Pearson Product Moment Correlation test with the help of RStudio software. The Pearson correlation test is used to measure the strength and direction of a linear relationship between two variables on an interval or ratio scale.

The Pearson Product Moment correlation formula is as follows:

$$r = \frac{\sum(X - \bar{X})(Y - \bar{Y})}{\sqrt{\sum(X - \bar{X})^2 \sum(Y - \bar{Y})^2}}$$

Description:

r = Pearson correlation coefficient

X = score of variable X

Y = score of variable Y

$\bar{X}$  = average score of variable X

$\bar{Y}$  = average score of variable Y

### Calculating the Average

Based on all respondent data obtained

$$\bar{X} = 28.00 \bar{Y} = 34.47$$

From the results of calculating all 51 respondents' data, the following was obtained:

$$\sum(X - \bar{X})(Y - \bar{Y}) = 1000.53 \sum(X - \bar{X})^2 = 2914 \sum(Y - \bar{Y})^2 = 23587.76$$

Substitute:

$$r = \frac{1000.53}{\sqrt{2914 \times 23587.76}} r = \frac{1000.53}{8264.98} r = 0.121$$

Result  $r = 0.121$

Test Formula:

$$t = \frac{r\sqrt{n-2}}{\sqrt{1-r^2}}$$

Degrees of freedom:

$$df = n - 2$$

Given:

Number of respondents:

$$n = 51$$

Correlation coefficient:

$$r = 0.121$$

Calculate the degrees of freedom:

$$df = n - 2 = 51 - 2 = 49$$

Substitute into the t-test formula:

$$t = \frac{0.121 \times \sqrt{51-2}}{\sqrt{1-(0.121)^2}} t = \frac{0.121 \times \sqrt{49}}{\sqrt{1-0.0146}} t = \frac{0.121 \times 7}{\sqrt{0.9854}} t = \frac{0.847}{0.993} t = 0.854$$

t-Test Results

$$t_{hitung} = 0.854 \quad df = 49$$

### Testing Decision

At a significance level of  $\alpha = 0.05$ , the calculated t-value is 0.854 with  $df = 49$ , resulting in a p-value of 0.397.

Because:

$$p\text{-value} = 0.397 > 0.05$$

then:

$H_0$  is accepted

$H_1$  is rejected

This means there is no significant relationship between student learning intensity and student learning concentration.

The Pearson correlation coefficient significance test results show a calculated t-value of 0.854 with  $df = 49$  degrees of freedom. This value produces a p-value of 0.397, which is greater than the 0.05 significance level. Therefore, it can be concluded that the relationship between student learning intensity and student learning concentration is not statistically significant. The significance test was conducted using the t-test with the formula  $t = \frac{r\sqrt{n-2}}{\sqrt{1-r^2}}$ . From the calculations obtained  $t_{count} = 0,854$  with  $df = 49$  and p-value 0.397, so the relationship is not significant.

The significance level used in this research is  $\alpha = 0.05$ . The decision making criteria are determined as follows: if the p-value  $< 0.05$  then the null hypothesis ( $H_0$ ) is rejected, whereas if the p-value  $\geq 0.05$  then the null hypothesis ( $H_0$ ) is accepted.

## IMPLEMENTATION METHOD

This research was conducted using a quantitative approach with a correlational design, aiming to determine the relationship between TikTok viewing intensity and students' learning concentration without any treatment or manipulation of the research variables.

### Subjects and Timeline

The study involved 51 respondents. Respondents were selected using a non-probability sampling technique, based on the respondents' availability and willingness to complete the research questionnaire. The study was conducted over a single data collection period by distributing questionnaires directly to respondents.

### Research Variables

This study consisted of two variables:

- Independent variable (X): TikTok viewing intensity
- Dependent variable (Y): Students' learning concentration.

The score for each variable was obtained by summing the questionnaire items completed by respondents.

### **Data Collection Technique**

Research data was collected using a questionnaire instrument structured based on the indicators of each variable. The TikTok viewing intensity questionnaire measured the frequency and duration of respondents' TikTok use, while the learning concentration questionnaire measured students' levels of focus and attention during the learning process.

Each statement item is structured using a numeric rating scale, so the resulting data is interval-scale and can be analyzed using parametric statistical techniques.

### **Data Analysis Techniques**

- The collected data were then analyzed using the Pearson Product Moment Correlation test with the help of RStudio software.
- The Pearson correlation test was used to determine the strength and direction of the linear relationship between TikTok viewing intensity and student learning concentration.
- The correlation coefficient significance test was conducted at a significance level of  $\alpha = 0.05$ . The criteria for selecting

### **Research Implementation Success Indicators**

- 1) The success of this research is determined based on the achievement of all research stages and the fulfillment of data analysis criteria. Indicators of success for this research include:
- 2) Complete research data was collected from 51 respondents, according to the predetermined sample size.
- 3) The research data is suitable for statistical analysis, as indicated by the arrangement of numerical data for variables X and Y.
- 4) The Pearson Product Moment correlation analysis was successfully conducted using RStudio, resulting in a correlation coefficient (r) and significance value (p-value).
- 5) The research hypothesis was answered based on statistical testing results at a significance level of  $\alpha = 0.05$ .
- 6) Scientifically sound research conclusions were drawn, thus achieving the research objective of determining the relationship between TikTok viewing intensity and student learning concentration.

## **ACTIVITY REALIZATION**

The research activities were carried out according to the established plan. The preparation phase involved developing a questionnaire instrument based on the variables of TikTok viewing intensity and student learning concentration. Next, the questionnaire was distributed to respondents until complete data from 51 respondents was collected.

The obtained data were then processed and analyzed using the Pearson Product Moment Correlation test with the aid of RStudio software. The analysis results showed a correlation coefficient of  $r = 0.121$  with a significance value of  $p = 0.397$ , indicating a very weak and insignificant relationship.

Based on all stages implemented, this research activity was declared successful and the research objectives were achieved.

## **III. RESEARCH RESULTS**

Data analysis in this study was conducted to determine the relationship between TikTok viewing intensity and students' learning concentration. Data were obtained from 51 respondents who completed the research questionnaire. The data were then analyzed using the Pearson Product Moment correlation test using RStudio software.

The Pearson correlation analysis showed a correlation coefficient of  $r = 0.121$  with a significance value of  $p = 0.397$  and  $df = 49$  degrees of freedom. This correlation coefficient indicates a very weak positive relationship between TikTok viewing intensity and students' learning concentration. Meanwhile, a p-value greater than the significance level of  $\alpha = 0.05$  indicates that the relationship is not statistically significant.

Based on the decision-making criteria, if the p-value is  $\geq 0.05$ , the null hypothesis ( $H_0$ ) is accepted and the alternative hypothesis ( $H_1$ ) is rejected. Therefore, the results of this study indicate that there is no significant relationship between TikTok viewing intensity and students' learning concentration.

The results indicate that TikTok viewing intensity does not have a significant relationship with students' learning concentration. The very weak correlation coefficient ( $r = 0.121$ ) indicates that, although there is a positive relationship, the effect of TikTok viewing intensity on students' learning concentration is very small and not statistically significant. This finding indicates that high or low TikTok viewing intensity does not directly determine students' learning concentration levels.



The results of this study align with the opinion of Zhang and Zhu (2020), who stated that the relationship between social media use and learning concentration is complex and does not always show a significant relationship. Students' learning concentration is influenced not only by the intensity of social media use but also by various other factors such as learning motivation, psychological state, time management, and a conducive learning environment.

Furthermore, Abbas et al. (2019) explain that social media can have varying impacts depending on the purpose and method of use. In the context of this study, students are likely able to manage their TikTok use proportionately so that it does not disrupt their learning concentration. TikTok can be used as a means of entertainment or relaxation after studying, so it does not always have a negative impact on students' learning focus. The findings of this study also differ from those of Lepp, Barkley, and Karpinski (2015), which stated that excessive use of digital devices can reduce academic achievement. This discrepancy in results may be due to differences in respondent characteristics, the research context, and the variables examined. This study focused on learning concentration, not academic achievement, so the results indicate that TikTok's effect on learning concentration is indirect.

Furthermore, the short and varied nature of TikTok content allows students to use it at relatively flexible times. If students have good self-control and time management, TikTok use does not necessarily disrupt learning activities. This reinforces the view that social media use cannot be generalized as a factor inhibiting learning concentration without considering other supporting factors.

Thus, the results of this study confirm that student learning concentration is a multidimensional phenomenon influenced by various internal and external factors. The intensity of TikTok viewing is not the sole determinant of learning concentration, but rather only one aspect of students' digital activity patterns. Therefore, further research is needed involving additional variables, such as learning motivation, self-control, and the learning environment, as well as a larger number of respondents to obtain a more comprehensive picture of the factors influencing student learning concentration.

#### **IV. CONCLUSION**

Based on the results of research conducted on the relationship between TikTok viewing intensity and student learning concentration, it can be concluded that there is no significant

relationship between the two variables. The Pearson Product Moment correlation test results showed a correlation coefficient of  $r = 0.121$  with a significance value of  $p = 0.397$ , which is greater than the  $\alpha = 0.05$  level. This value indicates that the relationship between TikTok viewing intensity and student learning concentration is very weakly positive and not statistically significant.

Therefore, the null hypothesis ( $H_0$ ) is accepted and the alternative hypothesis ( $H_1$ ) is rejected. These findings indicate that TikTok viewing intensity is not the primary factor influencing student learning concentration. Learning concentration is likely more influenced by other factors, such as learning motivation, time management, the learning environment, and the student's psychological state. Therefore, student use of TikTok does not necessarily have a negative impact on learning concentration as long as it is used proportionally and in a controlled manner.

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