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The Influence of Mobile Device Usage Intensity on Learning Motivation of Junior High School Students in Brebes Regency

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Abstract

This study aims to analyze the effect of mobile device usage intensity on the learning motivation of junior high school students in Brebes Regency. Using a quantitative approach with an explanatory correlational design, this study involved 384 students from 10 selected public junior high schools selected through purposive cluster and proportional random sampling techniques. Primary data were collected using a Likert-scale questionnaire that had been tested for validity and reliability, then analyzed using descriptive and inferential statistical methods. The results showed that the majority of students had a moderate level of mobile device usage intensity, with the dominant use being to access educational content. Meanwhile, their learning motivation level was in the high category. Hypothesis testing confirmed a strong positive relationship and a unidirectional and significant influence between the two variables. The coefficient of determination value showed that mobile device usage intensity contributed 42% to increasing student learning motivation. In conclusion, mobile device use has been proven not only as a source of distraction, but also functions as a catalyst that can increase student independence and learning motivation when directed appropriately towards academic activities.

Keywords: Digital Literacy; Mobile Device; Learning Motivation; Quantitative Study; Usage Intensity

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INTRODUCTION | مقدمة

The academic success and development of students at the junior high school level is largely determined by the extent to which learning motivation is applied in their daily activities. The characteristics of early adolescence, which is in the cognitive transition phase and the search for self-identity, require perseverance, achievement orientation, and strong self-regulation to ensure optimal knowledge absorption (Ali et al., 2022; Arnum, 2023). In this context, motivation is not merely a momentary driver, but rather the primary support that directs students' focus on developing their thinking, behavior, and adaptation skills in the school environment (Fernando et al., 2024; Rizani et al., 2022). Therefore, maintaining the continuity of learning motivation at this age is crucial for students' learning success.

In today's digital era, the continuity of focus and motivation for learning is closely linked to the development of information technology, particularly the use of mobile devices both at home and at school. Proportional mobile device use plays a crucial role in expanding access to learning materials, facilitating independent research, and improving students' digital skills (Kamaruddin et al., 2023; Rais et al., 2024). Furthermore, effective integration of digital technology in learning

environments has been shown to significantly enhance student engagement and academic drive (Azhari & Abidin, 2025). When the intensity of use is managed wisely for educational purposes, these digital devices have been shown to make the learning experience more interactive and stimulate students' emotional regulation and curiosity (Khairunnisa et al., 2026). Therefore, self-control and monitoring of mobile device use are crucial factors in maintaining the stability of adolescents' academic attention.

Although technology offers significant opportunities, empirical research often documents the opposite. Uncontrolled device use has consistently been reported to be a major factor in reducing students' attention and commitment to learning (Katiandagho, 2023; Yunita & Masriadi, 2025). Digital distractions stemming from non-academic activities result in decreased active participation, loss of concentration, and a lack of interest in completing school responsibilities (Arifah et al., 2026). Excessive attachment to devices gradually displaces adolescents' productive time allocation, ultimately diminishing their enthusiasm and motivation to learn (Febriyani et al., 2024; Hanifa & Sartono, 2025).

Although the negative impact of mobile devices on learning dynamics has been widely studied, a critical analysis of previous literature reveals theoretical and methodological weaknesses. Most previous studies tend to be descriptive, only describing the impact of mobile device use in general, without analyzing the internal factors underlying the fluctuations in motivation (Farhani et al., 2025; Wahyuni et al., 2026). The most fundamental methodological weakness lies in the limitation of the "intensity" variable indicator, which is mostly measured only by duration of screen time (Sajdah et al., 2023; Santos et al., 2023). This criticism is reinforced by a global meta-analysis study by Kates et al. (2018) and emphasized by Saputra et al. (2024), which convergently proves that the impact of mobile devices on academic dynamics cannot be generally assessed through accumulated screen time alone. Both findings confirm that the primary determinant of academic success is not the total hours spent using devices, but rather how the technology is integrated into schoolwork and the students' level of digital literacy in shifting the focus of device activity from passive content consumption to active digital knowledge production. This partial approach ignores aspects of access frequency, types of platforms opened, and user emotional attachment, resulting in inaccurate conclusions about students' overall digital behavior.

In addition to methodological limitations, previous research trends also reveal research gaps due to demographic biases centered on urban areas. Most research on digital behavior samples urban populations, where parental digital literacy and supervision patterns are well established (Susanti et al., 2024). This perspective fails to capture the social realities of developing or semi-urban areas, which face limited external supervision, both from the family and school environment (Muthoharoh & Hasanah, 2023; Muthmainah & Wulandari, 2024). Consequently, recommendations derived from previous studies lose relevance when confronted with the characteristics of local communities facing different challenges of emotional supervision and regulation (Rasyid, 2025).

These contextual and methodological limitations underlie the importance of conducting empirical research at the junior high school level in Brebes Regency. While there is a general concern that mobile device use in semi-urban areas is dominated by non-educational activities such as social media and online gaming, empirical evidence regarding their actual impact on student learning motivation remains inconclusive. Rather than assuming an absolute negative impact on devices, this study empirically examines whether intensive device use in semi-urban areas with limited external supervision actually decreases academic engagement or has

untapped potential as an academic catalyst. Addressing these issues is crucial to determining how digital technologies can be constructively integrated into students' daily learning habits.

To address the limitations of previous studies and address these local issues, this study employed a quantitative approach through a more comprehensive explanatory survey method (Sofya et al., 2024). The variable of mobile device usage intensity was measured multidimensionally, encompassing duration, frequency, and attention to devices (Wahyuliarmy & Sari, 2021). The theoretical contribution offered by this study is the development of an analytical model that links technology use with contemporary motivational theories based on the social characteristics of developing regions. Practically, the results of this study are expected to provide a basis for schools and parents in Brebes Regency to formulate appropriate digital literacy monitoring measures to restore students' academic perseverance and achievement (Husain & Simarmata, 2025). Based on this background, this study aims to determine and analyze in depth the effect of mobile device usage intensity on student learning motivation in junior high schools in Brebes Regency.

METHOD | منهج

Research Design

This study employed a quantitative approach with a systematic and directed associative correlational research approach (Sugiyono, 2022). The design employed was explanatory research, which aims to explain the causal relationships between variables in depth through systematic and measurable hypothesis testing, rather than simply describing the phenomena that occur. This design was chosen because the analysis aimed to examine the degree, direction, and strength of the causal influence between the independent variable, namely the intensity of device use (X), and the dependent variable, namely student learning motivation (Y). The researcher acted as an objective observer without conducting any experimental manipulation of the research variables in the field. The numerical data collected from respondents were then tabulated and processed using inferential statistical analysis methods to draw valid and scientifically accountable conclusions (Sugiyono, 2022).

Participant Characteristics

The target population in this study was all active students at State Junior High Schools in Brebes Regency, Central Java, totaling 21,175 students, spread across 77 schools in 17 sub-districts. This population was specifically selected because they are in the early adolescent development phase, aged 12 to 15 years, which is a crucial period in the development of learning psychology and fluctuations in academic motivation. Participant inclusion criteria were limited to active students at the selected schools who use devices in their daily activities (Sugiyono, 2022). To ensure targeting accuracy and efficient data collection across a broad population, the researchers set cluster boundaries based on the top 10 public schools in Brebes Regency that have relevant student characteristics, with a total accumulated cluster population of 9,803 students.

Sampling Methods

The sampling technique in this study used purposive cluster sampling combined with proportional random sampling (Sugiyono, 2022). The sample size was calculated mathematically using the Slovin formula from a total cluster population of 9,803 students with a margin of error of 5%. A representative sample size of 384.318 was obtained, which was then rounded to 384 students. Furthermore, the sample of 384 respondents was proportionally distributed across the

10 selected schools based on the proportion of the student population in each school, and randomly selected across grades VII, VIII, and IX to ensure balanced representation of all grade levels in data collection.

Measurement Approaches and Instruments

Primary data collection was conducted using a closed-ended questionnaire with a Likert scale and five answer choices, supported by structured interviews and non-participatory observation as complementary instruments. The instrument grid for the variable of mobile device usage intensity (X) consists of 22 statements developed from three main dimensions: daily usage duration, type of content accessed, and mobile device usage patterns.

Table 1. Grid of Mobile Device Usage Intensity Instrument

NO	Dimensions of Mobile device Usage Intensity	Indicator	Count
1	Usage Duration	Daily usage time	2
		Usage time while studying	2
		Nighttime usage time	2
2	Content Type	Educational content	2
		Entertainment content	2
		Social media	2
		Online games	2
3	Usage Pattern	Usage during lessons	2
		Usage during free time	2
		Usage before bedtime	2
		Frequency of checking mobile devices	2
	Total		22

Meanwhile, the learning motivation variable (Y) instrument grid consists of 21 items covering the dimensions of perseverance in learning, interest and attention in class, self-regulation or student independence, learning goal orientation, and external motivation for learning. The questionnaire is scored from 1 to 5 with a reverse scoring system between positive (favorable) and negative (unfavorable) items.

Table 2. Learning Motivation Instrument Grid

NO	Dimensions of Learning Motivation	Indicator	Count
1	Diligence in learning	Diligence and punctuality in submitting assignments	4
2	Interest and attention	Participation and activeness in learning	5
3	Self-regulation or independence	Concentration and focus in learning	4
4	Learning goal orientation	Academic achievement	4
5	Drive towards learning	Attitude towards learning	4
	Total		21

Before the instrument was widely distributed, the feasibility of the measuring instrument was tested through a validity test using the Bivariate Pearson Correlation method (Pearson Product Moment Correlation) assisted by SPSS. The calculated r value of each item was compared with the r table at a significance level of 0.05, where the questionnaire item was declared valid if the calculated r > r table and the significance value was less than 0.05 (Indartini & Mutmainah, 2024). The empirical test results showed that all questionnaire items were valid because they had a correlation coefficient value that exceeded the r table threshold of 0.361. The testing stage continued with a reliability test through an internal consistency approach using the Cronbach's Alpha formula. The minimum reliability threshold set in the research reference table is 0.60 (Indartini & Mutmainah, 2024). Based on the results of the SPSS analysis recapitulation, the mobile device usage intensity instrument had a Cronbach's Alpha index of 0.964, while the

learning motivation instrument had an index of 0.975, so both instruments were declared very reliable and reliable for use.

Data Analysis Procedures

All raw data were processed using IBM SPSS software version 26.0 through descriptive analysis, classical assumption testing, and inferential analysis. Prior to hypothesis testing, the classical assumption test must be met so that the regression model is a Best Linear Unbiased Estimator (BLUE). Normality testing was applied using the non-parametric Kolmogorov-Smirnov statistical test and a normal probability plot graph, with the condition that the data is normally distributed if the significance value is > 0.05. A linearity test was conducted to ensure the relationship between variables follows a straight line pattern through a linearity parameter < 0.05. A heteroscedasticity test was conducted using scatterplot graph pattern analysis and the Glejser test with the criteria met if the significance value is > 0.05 (Indartini & Mutmainah, 2024).

After all the classical assumption tests have been fulfilled, hypothesis testing is conducted using Simple Linear Regression Analysis to measure the causality influence mathematically through an equation model. Proof of the significance of the individual influence is tested through a partial t-test, where the hypothesis is accepted if t count > t table or the significance value < 0.05. The feasibility of this simple linear regression model is then evaluated comprehensively using the F test to prove the ability of the independent variables to explain the variation of the dependent variable validly with a significance criterion < 0.05. Finally, the magnitude of the contribution or effective contribution of the influence of the intensity of device use on changes in learning motivation is determined based on the value of the coefficient of determination which refers specifically to the Adjusted R Square value in the Model Summary output to avoid potential bias or inflation of model values. This value is then confirmed in the table of guidelines for interpreting the coefficient of determination to measure the strength of the final relationship (Indartini & Mutmainah, 2024).

To ensure meaningful interpretation of the average score, the scores were categorized into five levels based on a Likert scale (1–5). Based on these calculations, the assessment categories according to Sugiyono (2022) are presented in Table 3 below.

Table 3. Research Variable Assessment Categories

No	Score Range	Category
1	4,21 – 5,00	Very high
2	3,41 – 4,20	High
3	2,61 – 3,40	Moderate
4	1,81 – 2,60	Low

RESULT | نتائج

Descriptive Statistics

In general, the measurement results data for the two research variables are presented briefly in Table 4. Measurements were carried out on 384 students using a questionnaire instrument.

Table 4. Descriptive Statistics of Research Variables

Variabel	N	Minimum Score	Maximum Score	Mean	Standard Deviation	Category
Intensity of Mobile Device Use	384	39	110	71.92	10.959	Moderate (45,83%)
Learning Motivation	384	58	105	86.44	9.762	High (35,42%)

Based on Table 4, the majority of students' mobile device usage intensity was in the moderate category (45.83%), with an average score of 71.92. Conversely, the learning motivation variable showed a very positive trend. The average student learning motivation score reached 86.44, with the majority of respondents in the high category (35.42%).

To delve deeper into students' mobile device usage patterns, an indicator-level analysis was also conducted. Details of the average scores for each indicator can be seen in Table 5.

Table 5. Average Score of Mobile Device Use Intensity Indicator

No	Indicator	Average Score	Category
1	Daily usage time	2.73	Moderate
2	Usage time while studying	3.63	High
3	Nighttime usage time	3.20	Moderate
4	Educational content	4.03	High
5	Entertainment content	3.13	Moderate
6	Social media	3.13	Moderate
7	Online games	3.66	High
8	Usage during lessons	3.89	High
9	Usage during free time	2.79	Moderate
10	Usage before bedtime	2.76	Moderate
11	Frequency of checking mobile devices	3.05	Moderate

Table 5 reveals some very interesting findings regarding students' digital behavior. The indicator of mobile device use to access educational content holds the highest average score, at 4.025 (High category). Furthermore, usage during learning (3.890) and study time (3.625) also fall into the High category. This demonstrates that although students also use mobile devices for online gaming (3.655) and entertainment, their primary focus on mobile device use remains academic. This fact provides a strong basis for why the high intensity of mobile device use in this study is directly proportional to the increase in students' learning motivation.

In line with the high use of mobile devices for academic purposes, the students' learning motivation profiles also show very impressive results. Details of the average scores for each learning motivation indicator are presented in Table 6.

Table 6. Average Score of Learning Motivation Indicators

No	Indicator	Average Score	Category
1	Diligence and punctuality in submitting assignments	4.18	High
2	Participation and activeness in learning	3.91	High
3	Concentration and focus in learning	4.18	High
4	Academic achievement	4.29	Very high
5	Attitude towards learning	4.33	Very high

Based on Table 6, all indicators of student learning motivation are at optimal levels (categories High and Very High). The most prominent finding is seen in the Attitude Toward Learning indicator, which ranks highest with an average score of 4.33, followed closely by the Academic Achievement indicator with a score of 4.29. These data empirically confirm the causal relationship between the two variables. The high intensity of students accessing educational content through mobile devices (as shown in Table 5 above) has been proven to directly manifest in the formation of a very strong learning attitude and the achievement of maximum academic achievement. This refutes the assumption that mobile device use is inherently distracting. Conversely, with appropriate usage patterns, students' persistence in completing assignments and focus in learning are maintained at a high level (score 4.18).

Classical Assumption Test

Before conducting a linear regression hypothesis test, the research data must meet the model's feasibility requirements through a series of classical assumption tests. The prerequisite tests include normality, linearity, and heteroscedasticity tests.

The normality test aims to determine whether the residual values from the regression model are normally distributed. This test uses the One-Sample Kolmogorov-Smirnov method with the decision-making criteria based on the significance value (Asymp. Sig.). If the p-value > 0.05, then the data is declared normally distributed.

Table 7. Results of the Kolmogorov-Smirnov Normality Test

Variable	N	Test Statistic	p-value	Category
Unstandardized Residual	384	0.023	0.2	Normal

Based on Table 7, a significance value of 0.200 is obtained. Because the p value = 0.200 > 0.05, the null hypothesis (H0) is accepted. This proves that the residual data from the regression model of intensity of mobile device use and learning motivation is normally distributed, so it meets the requirements for parametric analysis.

The linearity test was used to ensure that the independent variable (intensity of mobile device use) and the dependent variable (learning motivation) had a significant linear relationship. The test criteria were based on the deviation from linearity significance value. If the significance value is >0.05, then there is a linear relationship between the variables.

Table 8. Linearity Test Results (Deviation from Linearity)

Relationship Indicators	Sum of Squares	df	Mean Square	F	Sig.	Category
Linearity	15315.134	1	15315.134	268.851	0	-
Deviation from Linearity	2498.817	54	46.274	0.812	0.822	Linear

Based on Table 8, the Deviation from Linearity row shows a calculated F value of 0.812 with a significance level of 0.822. Since the significance value of 0.822 > 0.05, this confirms that there is no significant deviation from linearity. Thus, the relationship between mobile device use intensity and learning motivation is linear.

The heteroscedasticity test aims to detect the presence or absence of unequal variances from residuals from one observation to another in a regression model. Based on the data, the test was conducted using the Glejser Test method, which was analyzed using an ANOVA table (the effect of independent variables on the Absolute Residual value). The model is declared free of heteroscedasticity if the significance value is > 0.05.

Table 9. Results of Heteroscedasticity Test (Glejser Test - ANOVA)

Model	Sum of Squares	df	Mean Square	F	Sig.
Regression	58020.801	1	58020.801	0.104	0.747
Residual	212555847.7	382	556428.921		
Total	212613868.5	383			

Referring to Table 9, the regression results on the absolute value of the residuals yielded an F-value of 0.104 with a significance level of 0.747. Since 0.747 > 0.05, it can be concluded that the variance of the residuals is constant. This means that the regression model used does not exhibit heteroscedasticity and is very suitable for hypothesis testing.

Hypothesis Testing

Hypothesis testing is conducted to make decisions regarding the acceptance or rejection of the hypothesis using simple linear regression analysis. The hypotheses tested in this section include: Ha: There is an effect of the intensity of mobile device use on the learning motivation of junior high school students in Brebes Regency and H0: There is no effect of the intensity of mobile device use on the learning motivation of junior high school students in Brebes Regency. Pearson correlation analysis is used to determine the extent of the strength of the relationship between the intensity of mobile device use and student learning motivation.

Table 10. Correlation Coefficient Results

Testing	Value
Pearson Correlation (R)	0.648
Sig. (2-tailed)	0
N	384

Based on Table 10 above, the correlation coefficient (R) value obtained was 0.648. This value is in the interval range of 0.60 - 0.799, which indicates that there is a strong relationship between the intensity of mobile device use and student learning motivation.

The t-test is used to test whether the independent variable (intensity of mobile device use) partially has a significant influence on the dependent variable (learning motivation).

Table 11. t-Test Results (Coefficients)

Model	Unstandardized Coefficients (B)	Std. Error	t -Value	Sig.
(Constant)	44.939	2.526	17.792	0
Intensity of Mobile Device Use	0.577	0.035	16.619	0

From Table 11, a significance value of 0.000 is obtained, which is far below the significance limit of 0.10. In addition, the calculated t value obtained is 16.619, which is greater than the critical t value (1.966) at the 95% confidence level. This proves that the intensity of mobile device use partially has a significant influence on students' learning motivation.

The F test using the ANOVA table is carried out to determine the feasibility of the model and to determine whether the research hypothesis is accepted or rejected.

Table 12. F Test Results (ANOVA)

Model	Sum of Squares	df	Mean Square	F- Value	Sig.
Regression	15315.134	1	15315.134	276.178	0
Residual	21183.366	382	55.454		
Total	36498.5	383			

The ANOVA test results show a calculated F value of 276.178. This value far exceeds the F table value (3.865) at a significance level of 5%. With a significance level of 0.000, which is less than 0.05, it can be concluded that H0 is rejected and Ha is accepted. This confirms that there is a conclusive effect of mobile device use intensity on student learning motivation at junior high schools in Brebes Regency.

The coefficient of determination aims to see how big the contribution or percentage of influence is that the variable of intensity of mobile device use has on learning motivation.

Table 13. Results of the Determination Coefficient (Model Summary)

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	0.648	0.42	0.418	7.447

The recorded coefficient of determination (R Square) was 0.420, or 42.0%. This figure qualifies as a moderate influence (ranging from 0.40 to 0.599). Practically, this means that the intensity of mobile device use contributes 42% to student learning motivation in junior high schools in Brebes Regency. The remaining 58% is influenced by other variables or factors outside this study.

Simple linear regression analysis is used to predict the state (rise and fall) of students' learning motivation variables if the intensity of mobile device use as a predictor factor is manipulated (its value is increased or decreased).

Table 14. Results of Simple Linear Regression Analysis (Coefficients)

Model	Unstandardized Coefficients (B)	Std. Error	Standardized Coefficients (Beta)	t	Sig.
1 (Constant)	44.939	2.526		17.792	0
Intensity of Mobile Device Use	0.577	0.035	0.648	16.619	0

From the table above, a simple linear regression equation can be formulated as follows:

$$Y_1 = 44.939 + 0.577X$$

Through the obtained regression equation, a constant of 44.939 indicates that if the mobile device usage intensity variable is set at zero, then the predicted student learning motivation is 44.939. Furthermore, the positive regression coefficient of 0.577 confirms the existence of a unidirectional relationship between the intensity of mobile device usage and student learning motivation. This means that every one unit increase in mobile device usage intensity is estimated to increase the student learning motivation score by 0.577 units.

DISCUSSION | مناقشة

This study confirms the initial hypothesis that the intensity of mobile device use has a positive and significant influence on the learning motivation of junior high school students in Brebes Regency. Contrary to the conservative view that often labels mobile devices as a primary source of distraction, this finding provides a scientific interpretation that mobile device use has evolved. Mobile devices have now transformed from mere communication and entertainment tools to crucial instruments in the modern learning ecosystem.

Conceptually, this positive influence demonstrates that the essence of "intensity" isn't solely measured by screen time, but rather by the orientation and quality of its use. When unlimited access to digital resources, educational apps, and assignment platforms is well-managed, it provides an autonomous and adaptive learning experience. This freedom psychologically fosters students' curiosity, independence, and enthusiasm, ultimately significantly increasing their learning motivation.

These findings are consistent with the literature on technology use intensity proposed by Wahyuliarmy & Sari (2021), where the level of cognitive engagement and the purpose of use are the main metrics for successful digital technology use, not simply frequency. Theoretically, these results also reinforce Bandura's Social Learning Theory. Referring to the elaboration of Rahimi et al. (2025) and Fazli and Nirwana (2025), students' cognitive processes in the modern era are strongly influenced by observing role models such as tech-savvy teachers and peers, which ultimately shape learning behavior through vicarious reinforcement and increased self-efficacy. In the dynamics of adolescent digital behavior, the concept of the function of devices as a dual instrument described by Lepp et al. (2014) is reinforced by the empirical findings of Zheng et al.

(2018) who confirmed that devices can act as a primary driver of academic efficiency and motivation when their use is oriented towards mobile learning activities that escalate the self-regulated learning abilities of high school students. However, the productive potential and transition towards intrinsic learning motivation will turn into a trigger for psychological anxiety if students' self-control weakens and the orientation of mobile device use shifts to constant non-academic interactions.

When compared with previous empirical studies, this research aligns with the findings of Hanifa and Sartono (2025), who emphasized that content orientation significantly dictates motivational dynamics. Interestingly, this finding provides an antithesis to the study by Katiandagho (2023), which highlighted decreased motivation due to social media distractions and poor time management. The results of this study in Brebes Regency strongly resonate with the conclusions of Hidayati et al. (2023), who stated that the negative effects of mobile devices can be mitigated if their use is consistently directed toward academic interests and supported by an appropriate mentoring climate.

The unexpected dominance of educational content use among junior high school students in semi-urban areas like Brebes Regency can be rationally explained by two contextual factors. First, this phenomenon is driven by the evolving pedagogical strategies of local teachers, who are increasingly integrating mobile-based assignments, digital learning resources, and online platforms into daily instruction. These structured academic demands direct students' interactions with their devices toward learning goals, even without intensive parental supervision at home. Second, the structural limitations of physical educational infrastructure in semi-urban areas, such as limited access to well-stocked public libraries or up-to-date printed textbooks, implicitly position mobile devices as the primary gateway to knowledge acquisition. Consequently, the need to transform digital devices from potential sources of distraction into indispensable academic substitutes contributes to fostering independent learning habits among these adolescents.

Despite being a powerful motivator, mobile devices' role in education should be viewed as a complementary variable, not an absolute determinant. These findings emphasize that technology's contribution always intersects with other external factors. Family environment (Fatimah et al., 2020), school role models and policies (Muthoharoh & Hasanah, 2023), and peer culture (Kamaruddin et al., 2023; Yunita & Masriadi, 2025) act as moderators that shape students' digital consumption habits.

Theoretically, this research confirms the proposition that digital technology is essentially neutral; the valence of its positive and negative impacts is entirely constructed by the literacy of its users and the ecosystem surrounding them. This is in line with findings by Sani & Fatimah (2026), who demonstrated that digital technology plays a dual role in adolescent development: while unstructured exposure risks producing digital distractions, targeted device utilization combined with adaptive guidance effectively transforms technology into a constructive educational tool. The practical consequences of these findings urge educational institutions to shift from a restrictive approach (strict prohibition) to an integrative one. Teachers are required to design technology-centered instructional designs to facilitate the learning styles of the digital native generation. At the same time, schools and parents need to build synergy in developing comprehensive digital literacy, so that students can filter content, manage time wisely, and utilize mobile devices as a catalyst for sustainable learning motivation.

CONCLUSSION | خاتمة

This study concludes that mobile device usage intensity positively and significantly influences the learning motivation of junior high school students in Brebes Regency. These findings challenge the conventional narrative that views digital devices solely as academic distractions, demonstrating that their educational impact depends on usage orientation rather than cumulative screen exposure. When purposefully integrated into learning tasks such as accessing study resources and completing assignments mobile devices serve as catalysts for student independence and learning drive.

Practically, these results urge teachers to incorporate device-based active learning into instruction, encourage schools to formulate constructive digital literacy guidelines, and prompt parents to provide supportive academic mentoring at home. Given the moderate usage intensity observed, future research should explore broader structural models incorporating variables such as teachers' digital competence, students' emotional regulation, and peer influence. Longitudinal or qualitative approaches are also recommended to examine the psychological threshold where productive technology use shifts toward addictive distraction.

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