



The Effect of Early Waking Habits on Elementary School Students' Academic Achievement

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ABSTRACT

This study is motivated by the importance of positive behavioral habits in supporting students' academic achievement, particularly the habit of waking up early, which is associated with physical and mental readiness for learning. The purpose of this study is to analyze the relationship and effect of morning waking habits on students' learning outcomes. This research employs a quantitative approach with a correlational design. The participants consisted of 50 students from a school in one of the districts in Serang Regency, selected using purposive sampling. Data were collected through a questionnaire to measure morning waking habits and documentation of students' scores to obtain learning outcomes. Data analysis was conducted using IBM SPSS Statistics version 29, including Pearson correlation and simple linear regression analysis. The results indicate a positive and statistically significant relationship between morning waking habits and students' learning outcomes, with a correlation coefficient of 0.62 ($p < 0.05$). Furthermore, regression analysis reveals that morning waking habits contribute 38% to students' learning outcomes. These findings suggest that early waking habits can serve as a supporting factor in improving students' academic performance, although it is not the only influencing factor

1. Introduction

Students' academic achievement is one of the primary indicators used to evaluate the success of the educational process (Maharani et al., 2024; Ridha et al., 2025; Zahroh & Hilmiyati, 2024). Learning outcomes are influenced not only by cognitive abilities but also by various non-cognitive factors, such as habits, self-discipline, and students' daily lifestyles (Faizzah & Surya, 2025; Rosyadi, 2024; Sartika et al., 2018). In the context of modern education, the development of positive habits has become increasingly important, as these habits contribute to students' learning readiness and long-term academic success (OECD, 2019). One simple yet potentially impactful habit that often receives limited attention is the practice of waking up early (Hasanah & Islamiyati, 2025; Jannah et al., 2025; Sinulingga, 2025).



The habit of waking up early is closely related to sleep patterns and circadian rhythms (Jannah et al., 2025; Setiawan et al., 2025). A well-regulated circadian rhythm plays a crucial role in maintaining biological balance, including students' physical and mental readiness to engage in learning activities. Students who consistently wake up early tend to have sufficient time to prepare for school, such as having breakfast, reviewing learning materials, and regulating their emotional state (Andreani et al., 2026; Eirene et al., 2025; Zein & Arika, 2026). These conditions contribute to better concentration and readiness during classroom learning. In contrast, students who wake up late are more likely to feel rushed, fatigued, and less focused during lessons .

In recent years, issues related to students' sleep quality have gained global attention. World Health Organization emphasizes that adequate and quality sleep is essential for supporting cognitive development, mental health, and academic performance among children and adolescents (WHO, 2021). Recent studies have also demonstrated a significant positive relationship between sleep quality and academic achievement, although the strength of the relationship may vary (Gani et al., 2025; Okur et al., 2026; Zhou et al., 2026). This indicates that sleep-related factors, including waking habits, play a meaningful role in academic success.

Current trends show that many students develop poor sleep habits due to excessive use of digital devices such as smartphones and social media (Eirene et al., 2025; Sumuli et al., 2025; Sutisna et al., 2024). This behavior often leads to late sleeping patterns, resulting in difficulty waking up early and decreased readiness for school (Febriani et al., 2025). Supporting this, previous research has found that sleep disturbances and poor sleep quality negatively affect cognitive functions such as attention, memory, and critical thinking (Suardiaz-muro et al., 2020). Furthermore, other studies have revealed that inadequate sleep quality is associated with lower academic performance among students (Javaid et al., 2020).

Recent empirical research further strengthens the relationship between sleep habits and academic outcomes. A study conducted in 2023 found that sleep quality and fatigue levels are directly associated with students' academic performance, particularly during intensive learning periods. Additionally, meta-analytic evidence suggests that sleep quality has a statistically significant correlation with academic achievement, although it is influenced by factors such as age, culture, and study habits (Zhou et al., 2026).

In the Indonesian context, research by Sofyana et al., (2022) indicates that wake-up time contributes to variations in students' academic performance, although its effect is not independent and is influenced by other factors such as sleep duration and physical activity. This finding suggests that waking time is an important variable within the broader study of learning habits and deserves further investigation, especially at the elementary school level.

Although numerous studies have examined the relationship between sleep patterns and academic achievement, most have focused on general aspects such as sleep duration and quality. Research specifically addressing the habit of waking up early as an independent behavioral variable remains limited. In fact, waking up early is not only associated with biological aspects but also reflects students' discipline, time management skills, and overall learning readiness.

Based on the above discussion, there is a research gap between the recognized importance of early waking habits as a positive behavior and the limited empirical studies examining its direct influence on students' academic achievement, particularly in primary education. Therefore, this study is important to provide empirical evidence regarding the effect of the habit of waking up early on students' learning outcomes. This study is also expected to contribute to the development of educational strategies that emphasize not only academic aspects but also the formation of positive student habits.

Accordingly, the objective of this study is to analyze the effect of the habit of waking up early on students' academic achievement. The findings of this study are expected to contribute theoretically to the literature on educational factors influencing learning outcomes and practically to provide guidance for teachers and parents in fostering positive daily routines that support students' academic success.

2. Methods

This study employed a quantitative approach with a correlational research design to examine the effect of early waking habits on students' academic achievement. The independent variable in this study was early waking habits (X), while the dependent variable was students' academic achievement (Y). The research was conducted among fourth-grade students at an elementary school in Serang Regency, Indonesia. The sample consisted of 50 students selected using a purposive sampling technique based on specific criteria, including active participation in classroom learning and the availability of complete academic records.

The variables in this study were operationally defined to ensure clarity and measurability. Morning waking habits were measured using a questionnaire developed based on several indicators: (1) consistency of waking time, (2) morning readiness before going to school, (3) time management in the morning, and (4) discipline in daily routines. Each indicator was represented by several statement items using a 4-point Likert scale (1 = strongly disagree to 4 = strongly agree). Examples of items for each indicator include: "I wake up at the same time every day" (consistency of waking time), "I prepare my school materials before leaving for school" (morning readiness), "I use my morning time to study or review lessons" (time management), and "I follow my morning routine regularly" (discipline). The total score of the questionnaire reflects the level of students' morning waking habits.

Students' academic achievement was measured using daily test scores obtained from school documentation. These scores represent students' learning outcomes in classroom activities.

Data were collected using two primary instruments, namely a questionnaire and documentation. The questionnaire employed a Likert scale to assess students' early waking habits, while documentation was used to collect students' academic scores. Prior to data collection, the research instrument was tested for validity and reliability to ensure its appropriateness. The validity test was conducted using the Pearson Product-Moment correlation, while reliability was measured using Cronbach's Alpha coefficient, with a threshold value of 0.70 indicating acceptable reliability.

The research procedure consisted of three main stages: preparation, implementation, and data analysis. The preparation stage involved developing and validating the research instruments. The implementation stage included distributing

the questionnaire and collecting students' academic data. The final stage involved analyzing the data using statistical techniques. Data analysis was performed using SPSS version 29, including Pearson correlation analysis to determine the relationship between early waking habits and academic achievement, and simple linear regression analysis to examine the extent to which early waking habits influence students' academic achievement.

Ethical considerations were also addressed by obtaining permission from the school prior to data collection. Participation was voluntary, and all collected data were kept confidential and used solely for research purposes.

3. Results & Discussion

3.1 Results

This study aims to analyze the relationship and the effect of morning waking habits on students' learning outcomes. Data analysis was conducted using IBM SPSS Statistics version 29.

3.1.1 Prerequisite Tests

Prerequisite tests were conducted prior to hypothesis testing, including normality and linearity tests.

The results of the normality test showed that the significance values for both variables (morning waking habits and learning outcomes) were greater than 0.05, indicating that the data were normally distributed.

Furthermore, the linearity test indicated that the relationship between morning waking habits and learning outcomes was linear, with a significance value less than 0.05. Therefore, the data met the requirements for further correlation and regression analysis.

3.1.2 Correlation Analysis

The results of the Pearson correlation test are presented in Table 1.

Table 1 Pearson Correlation Results

Variables	r	Sig. (p)
Morning Waking Habits and Learning Outcomes	0.62	0.000

Based on Table 1, the correlation coefficient (r) was 0.62 with a significance value of 0.000 ($p < 0.05$). This indicates that there is a positive and statistically significant relationship between morning waking habits and students' learning outcomes.

3.1.3 Simple Linear Regression Analysis

The results of the simple linear regression analysis are presented in Table 2.

Table 2 Simple Linear Regression Results

Model	R	R Square	Sig.
Regression	0.62	0.38	0.000

Based on Table 2, the coefficient of determination (R Square) was 0.38. This indicates that morning waking habits contribute 38% to students' learning outcomes, while the remaining 62% is influenced by other factors not examined in this study.

The regression equation obtained is as follows:

$$Y = 35.21 + 0.58X$$

This equation indicates that every one-unit increase in morning waking habits is associated with an increase of 0.58 in students' learning outcomes, with a constant value of 35.21.

3.2 Discussion

The results of this study indicate that there is a positive and statistically significant relationship between morning waking habits and students' learning outcomes. The correlation coefficient of 0.62 suggests a moderate to strong relationship between the two variables. Furthermore, the regression analysis revealed that morning waking habits contribute 38% to students' learning outcomes. This finding implies that the habit of waking up early plays a meaningful role in supporting students' academic achievement, but it should not be interpreted as a deterministic or sole predictor of learning success.

From a critical perspective, this relationship can be explained through interconnected biological and psychological mechanisms. From a theoretical perspective, morning waking habits are closely related to circadian rhythm regulation, which influences individuals' physical readiness and cognitive functioning during learning activities. Students who maintain consistent sleep and wake patterns tend to demonstrate better concentration and learning readiness (Elia et al., 2026; Fauzia et al., 2026; Yusman & Suriani, 2024). In line with this, adequate sleep quality and regular waking time have been shown to significantly affect cognitive functions such as attention, memory, and problem-solving skills (Rachmawati, 2025; Yusman & Suriani, 2024). However, it is important to note that this relationship is not always linear in broader contexts. Not all students who wake up early necessarily achieve higher academic outcomes, as sleep quality, duration, and psychological conditions also play significant roles.

The findings of this study are consistent with previous research indicating that early waking habits are associated with better academic performance. For instance, Saepulloh et al., (2023) found that students with a morning-oriented chronotype tend to achieve higher academic performance compared to those with an evening-oriented pattern. Similarly, Syahnia et al., (2025) reported that early waking habits positively influence students' discipline and engagement in learning activities. Nevertheless, it should be critically acknowledged that the concept of chronotype is influenced not only by habitual behavior but also by biological predispositions and environmental demands. Thus, morning waking habits observed in this study may also reflect external factors such as school schedules rather than purely intrinsic preferences.

Moreover, Yusman & Suriani (2024) demonstrated that sufficient sleep duration and earlier wake times are associated with increased classroom attention and engagement. These findings support the present study, suggesting that students who habitually wake up early are better prepared to participate in learning activities,

which ultimately leads to improved academic outcomes. However, student engagement is not solely determined by physiological readiness but is also shaped by pedagogical factors such as teaching methods and teacher–student interactions. Therefore, the influence of morning waking habits on learning outcomes may operate indirectly through mediating variables such as learning readiness and classroom engagement.

From an educational perspective, morning waking habits can also be linked to the development of discipline and time management skills. Students who wake up early tend to have more structured time to prepare for school activities, such as reviewing lessons and organizing learning materials. This is consistent with Haru et al., (2023) who emphasized that time management and self-regulation are critical factors in academic success. Therefore, early waking habits can be considered part of students' self-regulated learning strategies. However, it is important to emphasize that this habit functions more as a supporting factor rather than a primary determinant of academic achievement.

However, the results also indicate that morning waking habits account for only 38% of the variance in learning outcomes, meaning that 62% is influenced by other factors not examined in this study. These factors may include learning motivation, family environment, instructional quality, and students' cognitive abilities (Yandi et al., 2023). Therefore, morning waking habits should not be viewed as the sole determinant of academic success, but rather as one of several contributing factors. This finding highlights the multifactorial nature of academic achievement, where behavioral habits interact with cognitive, social, and environmental variables.

This finding is also supported by Awalia & Anas (2026) who argued that the relationship between sleep patterns and academic achievement is complex and influenced by multiple variables. Thus, although early waking habits have a significant contribution, educational interventions should consider broader aspects affecting student learning. Accordingly, the interpretation of these results should be approached cautiously, recognizing that morning waking habits operate within a broader system of learning-related factors rather than as an independent variable.

In conclusion, the findings of this study highlight the importance of establishing positive daily habits, particularly consistent waking routines, as part of efforts to enhance students' academic performance. Encouraging students to adopt disciplined sleep and wake patterns may serve as a practical strategy to improve learning readiness and outcomes

4. Conclusion

Based on the results and discussion, it can be concluded that morning waking habits have a positive and statistically significant relationship with students' learning outcomes and contribute meaningfully to academic achievement. This finding indicates that waking up early is not only related to discipline but also plays an important role in enhancing students' physical and mental readiness for learning activities.

The results suggest that morning waking habits can serve as an effective strategy for developing better learning behaviors. Students who consistently wake up early

tend to have more structured time to prepare for their learning activities, which ultimately contributes to improved learning outcomes.

However, morning waking habits are not the sole determinant of students' academic performance. Other factors such as learning motivation, family environment, and instructional quality also play significant roles. Therefore, efforts to improve learning outcomes should be carried out comprehensively by considering multiple influencing factors.

Based on these findings, it is recommended that educators and parents encourage students to develop early waking habits as part of building discipline and time management skills. Furthermore, future researchers are encouraged to explore additional variables and employ more rigorous research designs, such as experimental studies, to gain a deeper understanding of the factors influencing students' learning outcomes.

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