

The Influence Of Students' Self-Efficacy And Teacher Competence On Academic Achievement Through Learning Motivation

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Abstract

This study aims to analyse the influence of self-efficacy and teacher competence on students' academic achievement, with learning motivation as a mediating variable. Self-efficacy is defined as students' belief in their ability to accomplish academic tasks, while teacher competence encompasses pedagogical, professional, social, and personal dimensions that affect instructional quality. The research employed a quantitative associative approach using a descriptive-correlational non-experimental design. The sample consisted of 217 students selected through proportional random sampling. Data were collected using a structured and validated questionnaire tested for reliability. Data analysis was performed using Structural Equation Modeling (SEM) with the SmartPLS application. The results indicate that both self-efficacy and teacher competence have a positive and significant influence on learning motivation, and that learning motivation mediates the relationship between these variables and academic achievement. Furthermore, self-efficacy and teacher competence also exert a direct effect on academic achievement. These findings highlight the importance of enhancing students' self-efficacy and improving teacher competence in order to foster academic success through students' intrinsic motivation.

Keywords: Self-Efficacy, Teacher Competence, Academic Achievement, Learning Motivation

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Introduction

Education plays a crucial role in developing high quality human resources, with teachers occupying a central position in ensuring its effectiveness. A teacher's effectiveness is influenced not only by their ability to manage the instructional process but also by their confidence in their own capabilities, a concept known as self-efficacy. Bandura (1997) defines self-efficacy as an individual's belief in their capacity to organise and execute the actions required to achieve specific performance outcomes. In an educational context, teacher self-efficacy reflects the extent to which teachers feel capable of addressing instructional challenges, managing classrooms efficiently, and facilitating effective learning.

Teacher competence is equally important in enhancing students' academic achievement. According to the Indonesian Law No. 14 of 2005 on Teachers and Lecturers, teacher competence comprises four essential domains: pedagogical, professional, personal, and social. Mulyasa (2009) further elaborates that teacher competence involves a combination of knowledge, skills, and attitudes reflected in daily professional practice. Competent teachers can design effective learning experiences,



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understand student characteristics, and apply appropriate teaching methods tailored to students' learning needs.

Students' academic achievement is significantly influenced by their learning motivation, defined as the internal and external forces that direct, sustain, and energise learning behaviour (Uno, 2011). Highly motivated students tend to be more active, persistent, and goal-oriented. Schunk et al. (2014) argue that learning motivation serves as a link between the learning environment and learning outcomes. In this context, teacher quality as an external factor can influence student motivation, ultimately impacting academic performance. Nevertheless, empirical findings often show that student performance does not always align with expectations, raising questions regarding the roles of self-efficacy and teacher competence in shaping learning motivation and influencing academic outcomes.

This study therefore seeks to answer the following questions: To what extent do teacher self-efficacy and competence contribute to students' academic achievement? What role does learning motivation play as a mediating variable? Specifically, the research investigates whether teacher self-efficacy and competence have a direct influence on students' learning motivation, and whether this motivation mediates the relationship between the two teacher-related variables and students' academic achievement. It also explores the indirect effects of teacher variables on student achievement through learning motivation.

Aligned with these research questions, the objectives of the study are: (1) to examine the effect of teacher self-efficacy on students' learning motivation; (2) to analyse the impact of teacher competence on students' learning motivation; and (3) to investigate the influence of teacher self-efficacy and competence on academic performance through learning motivation as a mediating factor. This research aims to offer a deeper understanding of how teachers' personal and professional attributes affect student academic outcomes through students' internal psychological mechanisms.

Academic success is not solely determined by intellectual ability. Psychological factors such as self-efficacy and environmental factors like teacher competence are equally influential. Students with high self-efficacy tend to be more confident, resilient, and actively engaged in learning. Conversely, low self-efficacy is associated with learning anxiety, reduced motivation, and a tendency to give up easily, resulting in suboptimal academic achievement (Zimmerman, 2020). Teacher competence, as a frontline component of instructional delivery, plays a vital role in the learning process, encompassing not only pedagogical expertise but also social, personal, and professional capacities.

Educational institutions and teachers have implemented various strategies to improve instructional quality, such as adopting innovative teaching approaches and addressing diverse student characteristics. However, outcomes remain inconsistent. For instance, data from the end-of-semester summative assessment in Kalidawir Subdistrict for the 2024/2025 academic year show that only 27.1% of sixth-grade students achieved high academic performance, while 62.1% were in the moderate category and 10.8% in the low category. These results suggest that learning outcomes are far from optimal. Field observations also reveal that many students exhibit low learning motivation, appearing passive, lacking confidence, and struggling to maintain focus—an indication of low self-efficacy (Pajares & Schunk, 2001).

Another contributing factor is teacher competence. Shulman (1987) asserts that teachers who possess a strong grasp of pedagogy and are capable of delivering content systematically are better at engaging students. Interviews with several teachers revealed that some still struggle to apply innovative teaching methods, lack mastery of differentiated instruction, and fail to foster classroom environments that promote active student participation. This limited instructional stimulation further diminishes students' intrinsic motivation (Russell & Norvig, 2003).

This study explores the relationship between teacher self-efficacy, teacher competence, and student academic achievement, with learning motivation serving as a mediating variable. Internal factors such as students' self-efficacy and external factors like teacher competence are believed to contribute significantly to learning motivation, which in turn affects academic achievement. Teachers with high self-efficacy are more likely to employ varied instructional strategies, inspire students, and manage classrooms effectively. According to Darling-Hammond et al., (2020), Suherman (2020), (Russell & Norvig, 2003), Zhang & Wildemuth (2005), Averina & Widagda (2021) teachers who demonstrate both strong self-efficacy and competence are better able to foster a supportive learning environment, enhance student motivation, and ultimately improve academic outcomes. Such teachers serve as effective role models for achieving cognitive, affective, and psychomotor learning goals.

Fives & Buehl (2023) emphasise that teacher self-efficacy is closely linked to classroom management and emotional support, both of which theoretically affect student performance, motivation, and learning outcomes. Teachers with strong self-efficacy tend to adopt responsive and adaptive strategies aligned with students' needs. These practices help create a positive learning atmosphere that boosts students' confidence and academic success. Hettinger et al., (2024) also found that teacher self-efficacy in managing classrooms and providing emotional support is longitudinally related to discipline and social connectedness as reported by both students and teachers.

Bloom (1956) suggests that academic achievement is the result of dynamic interactions between internal and external factors. Internal factors include cognitive aspects such as intellectual ability and emotional readiness, as well as affective components such as intrinsic motivation and self-efficacy. Shulman (1987) highlights that teacher competence is another critical determinant of learning success. Competent teachers not only understand the subject matter but also possess the skills to apply diverse instructional methods and media effectively.

Although previous research has explored the impact of self-efficacy and teacher competence on academic achievement through learning motivation, few have examined all four variables within an integrated framework. Studies by Mwakapenda (2004), Adman & Supriatna (2017), and Sasi (2022) underscore the importance of self-efficacy and motivation in academic success. Similarly, Darling-Hammond (2017) and Kapustina et al. (2015) affirm that teacher competence is a strong predictor of learning outcomes. Darling-Hammond (2017), specifically highlights how teaching quality directly influences student engagement and academic results.

This research proposes a unified theoretical model combining teacher self-efficacy, teacher competence, student learning motivation, and academic achievement. The study contributes to the development of a framework that integrates both psychological and pedagogical constructs. By linking teacher-related factors to students' internal motivation, it provides insight into how these elements collectively influence academic success. Teacher involvement and student belief systems play vital roles, particularly at the primary education level (Ayllón et al., 2019).

Adman & Supriatna (2017) report that self-efficacy and learning motivation significantly affect academic achievement. Pajares & Schunk (2021) further state that students with high self-efficacy are more confident and better equipped to tackle academic challenges, while those with lower self-efficacy are more susceptible to anxiety and self-doubt. This study aims to determine whether learning motivation acts as a significant mediator in the relationship between teacher quality and student academic achievement. The findings are expected to guide teachers in developing instructional approaches that enhance students' self-efficacy and strengthen their professional competencies. Ultimately, the research seeks to promote more effective teaching practices and elevate the teacher's role as a competent and inspirational learning facilitator.

Methodology

This study employed a quantitative approach using an associative design. The population consisted of 475 sixth-grade elementary school students in Kalidawir Subdistrict during the 2024/2025 academic year. The sample size was determined using the Slavin formula, resulting in a total of 217 students. The sampling technique used was proportional random sampling.

Data were collected through the distribution of questionnaires. The data analysis in this study was conducted using the SmartPLS application to examine the relationships among variables through the Partial Least Squares Structural Equation Modeling (PLS-SEM) method.

The data analysis techniques applied included both descriptive and inferential statistical analyses. Statistical analysis encompassed two main components:

1. Outer Model Evaluation, which included tests for convergent validity, discriminant validity, composite reliability, path analysis, validity testing, reliability testing, and classical assumption testing.
2. Inner Model Evaluation, which covered the analysis of the coefficient of determination (R^2), evaluation of model fit (Goodness of Fit), simultaneous F-test, and partial hypothesis testing using the t-test (Ghozali & Latan, 2023).

This methodological framework ensured the validity and reliability of the instruments and models used in the study, allowing for robust interpretation of the relationships among the studied variables.

Results and Discussion

The research model used in this study was a mediation model, where teacher self-efficacy and teacher competence acted as independent variables (X), students' learning motivation was the mediating variable (M), and students' academic achievement was the dependent variable (Y). Data analysis using SmartPLS was conducted to examine the direct effects of teacher self-efficacy and competence on academic achievement and the indirect effects through the mediation of learning motivation.

1. Effect of Students' Self-Efficacy (X1) on Learning Motivation (Z)

The PLS analysis revealed that students' self-efficacy (X1) had a positive and significant effect on learning motivation (Z), with a path coefficient of 0.616 (T-statistics = 15.427, $p = 0.000$). This indicates that the higher the students' self-efficacy, the greater their learning motivation. Students with strong self-efficacy tend to be more confident, persistent, and resilient in the learning process. This belief fosters intrinsic motivation, encouraging students to be more engaged, focused, and enthusiastic during lessons. These findings align with Bandura (1997) theory that students' belief in their academic abilities promotes intrinsic motivation and persistence in learning. The results are also supported by studies from Hendra (2023) and Widya (2022) who found that students' belief in their ability to complete academic tasks motivates them to study diligently and confidently.

2. Effect of Teacher Competence (X2) on Learning Motivation (Z)

Teacher competence (X2) also had a significant effect on learning motivation (Z), with a path coefficient of 0.613 (T-statistics = 14.982, $p = 0.000$). Data indicated that 74.7% of students rated teacher competence as high, particularly in pedagogical and professional domains. Competent teachers play a crucial role in developing students' motivation. Teachers with strong pedagogical, professional, social, and personal competencies are able to present materials effectively, foster positive relationships with students, and create enjoyable learning environments. As a result, students become more enthusiastic, confident, and motivated to participate in classroom activities. This finding strengthens Law No. 14/2005 concerning Teachers and Lecturers, as well as Auliah (2024) research, which found that competent teachers create a motivating learning environment.

3. Effect of Students' Self-Efficacy (X1) on Academic Achievement (Y)

Self-efficacy had a direct and significant effect on academic achievement (Y), with a path coefficient of 0.236 (T-statistics = 5.874, $p = 0.000$). Students with high self-efficacy tend to set academic goals, work harder, and approach challenges with appropriate strategies. They also demonstrate independence, discipline, and consistency, which contribute to better academic outcomes. These results are consistent with Bandura's (1997) theory and supported by studies from Ilyas (2019) and Yuliana (2020), which highlight the role of self-efficacy in enhancing motivation and academic performance.

4. Effect of Teacher Competence (X2) on Academic Achievement (Y)

Teacher competence did not have a direct effect on academic achievement (Y), as shown by a path coefficient of 0.034 (T-statistics = 1.837, $p = 0.403$). However, the model's R^2 value reached 96.8%, indicating that teacher competence contributed indirectly through learning motivation. This suggests that teacher competence influences academic achievement primarily by first enhancing students' motivation. These findings align with Sanusi's (2024) view that teachers play a more dominant role in fostering student motivation rather than directly affecting

outcomes. Competent teachers create conducive learning environments, employ appropriate teaching approaches, and actively engage students factors that inspire intrinsic motivation. These results are also supported by Ningsih (2021), who found that teacher competence significantly influences academic achievement when mediated by motivation.

5. Effect of Learning Motivation (Z) on Academic Achievement (Y)

Learning motivation had the strongest effect on academic achievement, with a path coefficient of 0.829 (T-statistics = 18.635, $p = 0.000$), indicating that highly motivated students achieve higher academic outcomes. These findings are consistent with the Self-Determination Theory developed by Deci and Ryan (2023), which emphasizes intrinsic motivation as a key driver of academic success. Intrinsically motivated students tend to be more persistent, focused, and interested in their studies. This is also supported by Pertiwi (2023), who found that students with high learning motivation perform better academically. Thus, instructional strategies that enhance motivation such as promoting autonomy, providing positive reinforcement, and ensuring content relevance are essential in education.

6. Simultaneous Effects of Self-Efficacy and Teacher Competence on Academic Achievement

The analysis showed a significance value of 0.000, below the 0.05 threshold, indicating that the alternative hypothesis (H_{a6}) was accepted. This means that self-efficacy and teacher competence together significantly influenced academic achievement. A statistical value of 519.689 also confirmed a strong statistical relationship. These findings align with Bandura (1997) that self-efficacy is a crucial internal factor affecting learning success. Meanwhile, teacher competence, as an external factor, plays a key role in establishing effective learning environments Darling-Hammond (2021). It can be concluded that higher levels of self-efficacy and teacher competence result in better academic performance. This highlights the importance of interventions that support students' confidence and improve teacher quality, especially at the elementary level.

7. Indirect Effects through Learning Motivation

Mediation analysis revealed that self-efficacy $\rightarrow$ motivation $\rightarrow$ achievement had a significant indirect effect (coefficient = 0.511, T-statistics = 12.743, $p = 0.000$), and teacher competence $\rightarrow$ motivation $\rightarrow$ achievement also had a significant effect (coefficient = 0.508, T-statistics = 12.518, $p = 0.000$). These results indicate that learning motivation acts as a partial mediator for self-efficacy and a full mediator for teacher competence. The Q^2 value of 0.708 suggests the model has strong predictive power. This confirms that learning motivation serves as a bridge between internal and external factors influencing academic outcomes. Improving both students' self-efficacy and teacher competence is crucial to enhancing learning motivation, which ultimately contributes significantly to academic achievement. These findings reinforce Bandura's theory and Darling-Hammond's (2021) view that confident and competent teachers are key to students' academic success.

Based on the analysis and discussion of the research findings, it can be concluded that students' self-efficacy and teacher competence have a direct influence on students' learning motivation, and learning motivation has a direct impact on academic achievement. Students' self-efficacy also directly influences academic achievement, whereas teacher competence does not have a direct impact on academic performance. However, learning motivation serves as a mediating variable in the relationship between students' self-efficacy and teacher competence with academic achievement. Therefore, enhancing students' self-efficacy and improving teacher competence can significantly boost learning motivation, which ultimately contributes to better academic performance.

Conclusion

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