



## The Effect of Principal Supervision and Instructional Motivation on Students' Academic Achievement in Islamic Primary Schools

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This study aims to examine the effect of principal supervision and instructional motivation on students' academic achievement in Islamic elementary schools within the KKMI network in Losari District, Cirebon Regency. The research employs a descriptive and verificative approach with a mixed-method design, combining qualitative and quantitative techniques. The sample consists of 44 respondents selected through purposive sampling. Data were analyzed using correlation and regression techniques, including t-tests and F-tests, to determine both partial and simultaneous effects of the independent variables on the dependent variable. The findings indicate that principal supervision has a positive and significant effect on students' academic achievement, with a correlation coefficient of 0.554 and a determination coefficient of 30.7%. Similarly, instructional motivation demonstrates a positive and significant influence on students' academic achievement, with a higher contribution compared to supervision. Furthermore, the simultaneous analysis reveals that both principal supervision and instructional motivation collectively have a significant effect on students' academic achievement. These results highlight the importance of effective supervision and strong instructional motivation in improving learning outcomes. However, a substantial proportion of variance in academic achievement remains influenced by other factors not examined in this study. In conclusion, enhancing the quality of principal supervision and strengthening instructional motivation are essential strategies for improving students' academic performance in Islamic primary education.

**Keywords:** principal supervision, instructional motivation, academic achievement, Islamic education, primary school.

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### INTRODUCTION

Education plays a fundamental role in shaping human capital and fostering sustainable national development. At the primary level, education serves as the foundation for cognitive, social, and moral development, particularly in the context of Islamic education, where academic

learning is closely integrated with character building and spiritual values. In Indonesia, Islamic primary schools are expected not only to deliver academic competencies but also to cultivate students' moral and religious awareness in line with national education goals.

One of the key determinants of educational quality is the effectiveness of school leadership, particularly the role of the principal as an instructional supervisor. Instructional supervision is widely recognized as a strategic process aimed at improving teaching practices, supporting teacher professional development, and ultimately enhancing student learning outcomes (Hallinger & Murphy, 2013; Glickman et al., 2018). Effective supervision enables principals to monitor instructional processes, provide constructive feedback, and facilitate continuous improvement in classroom practices. Empirical studies have shown that strong instructional leadership significantly contributes to improved student achievement and school performance (Robinson et al., 2008; Leithwood et al., 2020).

In addition to supervision, instructional motivation is another critical factor influencing students' academic achievement. Motivation, both intrinsic and extrinsic, plays a central role in determining students' engagement, persistence, and overall learning success (Ryan & Deci, 2020). Students with higher levels of motivation tend to demonstrate better academic performance, as they are more actively involved in the learning process and exhibit greater resilience in overcoming academic challenges (Schunk & DiBenedetto, 2020). In the classroom context, teachers' ability to foster motivation through effective instructional strategies is essential for creating a conducive learning environment.

Despite the recognized importance of both principal supervision and instructional motivation, many Islamic primary schools still face challenges in optimizing these factors. Preliminary observations indicate that supervisory practices are not always implemented consistently, and motivational strategies in teaching are sometimes insufficient to fully engage students. As a result, variations in student academic achievement persist, suggesting the presence of underlying factors that require further investigation.

Previous studies have examined the relationship between instructional leadership, motivation, and student achievement; however, limited research has specifically focused on the integrated effect of principal supervision and instructional motivation within the context of Islamic primary education in Indonesia. This gap highlights the need for empirical research that simultaneously investigates these variables in a localized educational setting.

Therefore, this study aims to analyze the effect of principal supervision and instructional motivation on students' academic achievement in Madrasah Ibtidaiyah within the KKMI network in Losari District, Cirebon Regency. Specifically, this study seeks to: (1) examine the partial effect of principal supervision on students' academic achievement, (2) analyze the partial effect of instructional motivation on students' academic achievement, and (3) investigate the simultaneous effect of both variables on students' academic achievement. The findings of this study are expected to contribute to the development of effective educational management practices and provide practical implications for improving the quality of Islamic primary education.

## **METHOD**

This study employed a descriptive and verificative research design using a mixed-method approach that integrates both qualitative and quantitative techniques. The descriptive approach was used to provide a systematic overview of the research variables, while the verificative approach aimed to test the hypothesized relationships among variables through statistical analysis (Creswell & Creswell, 2018; Sugiyono, 2017). The research design involved multiple variables, consisting of two independent variables: principal supervision ( $X_1$ ) and instructional motivation ( $X_2$ ) and one dependent variable, namely students' academic achievement ( $Y$ ). This design

enables the analysis of both partial and simultaneous effects of the independent variables on the dependent variable.

The population of this study comprised teachers and students from Madrasah Ibtidaiyah within the KKMI network in Losari District, Cirebon Regency. A total of 44 respondents were selected using a purposive sampling technique, in which participants were chosen based on specific criteria relevant to the research objectives (Etikan et al., 2016). This approach ensures that the selected respondents possess adequate knowledge and experience related to the variables under investigation.

Data were collected from both primary and secondary sources. Primary data were obtained through structured questionnaires distributed to respondents, designed to measure principal supervision, instructional motivation, and students' academic achievement. The instruments were developed based on established theoretical indicators and measured using a Likert scale. Secondary data were gathered from relevant documents and institutional records to support and complement the primary data.

The operationalization of variables in this study was based on established theoretical constructs. Principal supervision was measured through indicators such as guidance in teaching practices, monitoring of instructional activities, evaluation of teacher performance, and the provision of professional support. Instructional motivation was assessed through both intrinsic and extrinsic dimensions, including students' interest in learning, desire for achievement, and external reinforcement. Meanwhile, students' academic achievement was evaluated through cognitive, affective, and psychomotor domains, reflecting overall learning outcomes.

Data analysis was conducted using statistical techniques, including descriptive statistics, Pearson correlation, and linear regression analysis. Hypothesis testing was performed using t-tests to examine the partial effects of each independent variable and F-tests to assess the simultaneous effects of the independent variables on the dependent variable (Field, 2018). The coefficient of determination ( $R^2$ ) was used to determine the proportion of variance in students' academic achievement explained by the independent variables. A significance level of  $\alpha = 0.05$  was applied as the threshold for hypothesis testing, and all analyses were conducted using SPSS software.

## RESULTS AND DISCUSSION

The findings of this study indicate that both principal supervision and instructional motivation have positive and significant effects on students' academic achievement, both partially and simultaneously. Descriptive analysis shows that the mean score of principal supervision ( $X_1$ ) is 63.48, instructional motivation ( $X_2$ ) is 61.75, and students' academic achievement ( $Y$ ) is 83.64. These results suggest that while supervision and motivation are at moderate levels, student achievement tends to be relatively high. To provide a clearer statistical overview, the key results are summarized in Table 1.

**Table 1.** Summary of Statistical Results

Variable		r-value	t-value	Sig. (p)	R <sup>2</sup> Contribution	Interpretation
Principal Supervision ( $X_1 \rightarrow Y$ )		0.554	4.310	0.000	30.7%	Moderate, significant
Instructional Motivation ( $X_2 \rightarrow Y$ )		-	-	0.000	53.8%	Stronger, significant
Simultaneous ( $X_1$ & $X_2 \rightarrow Y$ )		-	F=18.572	0.000	30.7%	Significant combined

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The correlation between principal supervision and academic achievement ( $r = 0.554$ ) falls within the moderate category, indicating that supervision contributes meaningfully but not dominantly to student outcomes. This finding aligns with the theory of instructional leadership, which suggests that principals influence student achievement indirectly through teachers and instructional processes (Hallinger & Murphy, 2013; Leithwood et al., 2020). In this context, supervision acts as a systemic mechanism that enhances teacher performance, rather than directly affecting students.

**Figure 1.** Indirect Effect Model of Principal Supervision on Students' Academic Achievement

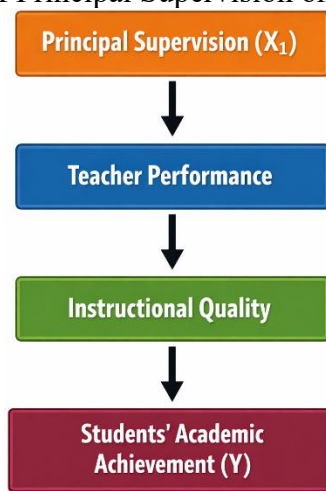


Figure 1 illustrates the indirect effect of principal supervision on students' academic achievement. The model shows that supervision influences student outcomes through mediating variables, namely teacher performance and instructional quality.

This pathway supports the mediated-effect model, where leadership improves learning outcomes by strengthening teaching practices. When principals provide effective supervision such as feedback, coaching, and instructional guidance teachers are more likely to adopt effective pedagogical strategies, which ultimately improve student achievement. However, if supervision is limited to administrative control without professional support, its impact becomes less significant.

In contrast, instructional motivation demonstrates a stronger influence on academic achievement, indicating that it functions as a more proximal determinant of learning outcomes. This finding is consistent with Self-Determination Theory, which emphasizes that motivation—particularly intrinsic motivation—plays a central role in driving engagement, persistence, and academic success (Ryan & Deci, 2020). Students who are motivated tend to be more actively involved in learning, show higher levels of effort, and achieve better outcomes.

The stronger influence of motivation can be explained through its direct interaction with the learning process, as illustrated below.

**Figure 2.** Conceptual Model of Instructional Motivation on Students' Academic Achievement

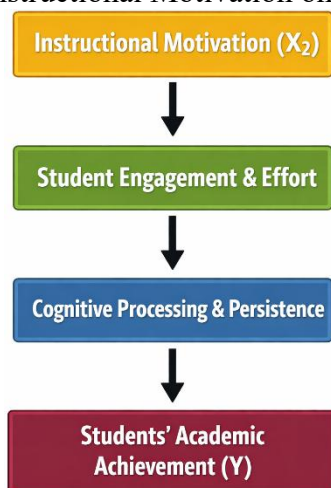


Figure 2 presents the direct effect of instructional motivation on students' academic achievement. Motivation enhances student engagement, effort, and cognitive processing, which ultimately leads to improved learning outcomes.

Unlike supervision, which operates at the organizational level, motivation directly affects students' internal learning processes. This explains why instructional motivation has a more substantial impact on academic achievement compared to principal supervision. Empirical studies also confirm that motivated students demonstrate higher levels of academic performance and resilience in learning (Schunk & DiBenedetto, 2020).

Furthermore, the simultaneous analysis reveals that principal supervision and instructional motivation together have a significant effect on academic achievement ( $F = 18.572$ ,  $p < 0.05$ ). However, the combined coefficient of determination ( $R^2 = 0.307$ ) indicates that only 30.7% of the variance in student achievement is explained by these two variables. This relatively modest explanatory power suggests that student achievement is influenced by a broader range of factors.

To better illustrate the proportion of explained and unexplained variance, the following diagram is presented.

**Figure 3.** Proportion of Explained and Unexplained Variance in Academic Achievement  
Total Variance in Academic Achievement (100%)

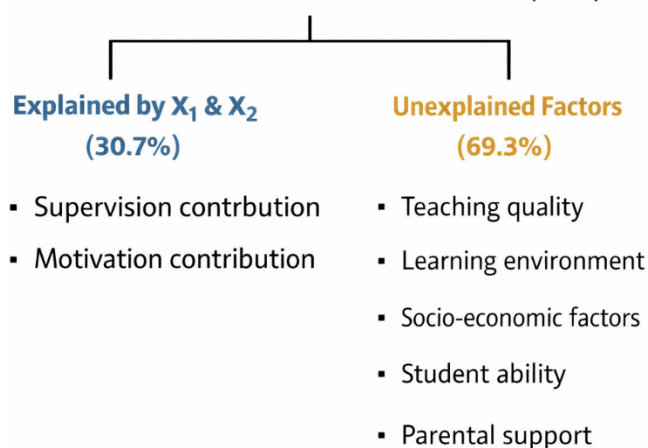


Figure 3 shows the proportion of variance in students' academic achievement explained by principal supervision and instructional motivation (30.7%), compared to other unexplored factors (69.3%).

This finding reinforces the multidimensional nature of academic achievement, as supported by prior research indicating that learning outcomes are influenced by a combination of instructional, psychological, and environmental factors. The relatively large unexplained variance highlights the need for future research to incorporate additional variables, such as teacher competence, school climate, and family background.

An important analytical insight from this study is the apparent discrepancy between the higher partial contributions and the lower simultaneous contribution. This suggests a potential overlap between principal supervision and instructional motivation, indicating that both variables may influence student achievement through shared mechanisms. For instance, effective supervision may enhance teacher motivation, which in turn fosters student motivation and engagement. This interconnected relationship can be illustrated as follows:

**Figure 4.** Integrated Model of Supervision and Motivation Effects

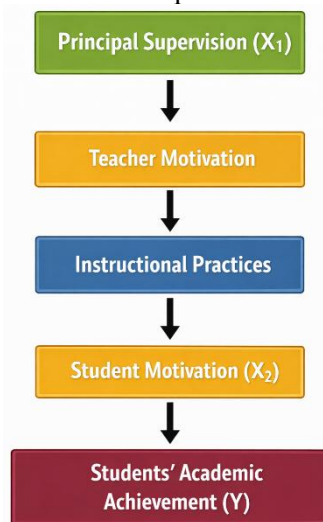


Figure 4 illustrates the integrated relationship between principal supervision and instructional motivation. The model highlights how supervision influences teacher motivation and instructional practices, which subsequently affect student motivation and academic achievement.

This integrated model highlights that supervision and motivation are not isolated factors but are interconnected within the educational system. Therefore, improving student achievement requires a holistic approach that combines strong leadership with effective classroom practices.

In summary, the findings confirm that principal supervision and instructional motivation significantly influence students' academic achievement, both individually and collectively. However, instructional motivation emerges as the more dominant factor, emphasizing the importance of fostering student engagement and motivation in the learning process. At the same time, effective supervision remains essential as a structural mechanism that supports teacher development and instructional quality. The integration of these two factors is crucial for achieving optimal educational outcomes.

## CONCLUSION

This study concludes that principal supervision and instructional motivation both have positive and significant effects on students' academic achievement in Madrasah Ibtidaiyah within the KKMI network in Losari District, Cirebon Regency. Partially, principal supervision demonstrates a moderate yet meaningful influence on academic achievement, indicating that effective supervisory practices contribute to improving learning outcomes primarily through

enhancing teacher performance and instructional quality. This finding supports the perspective that school leadership functions as an indirect but essential driver of student success.

In contrast, instructional motivation shows a stronger and more dominant influence on students' academic achievement. This highlights the critical role of students' internal and external motivational factors in shaping their engagement, persistence, and overall learning performance. As motivation operates directly within the learning process, it becomes a more immediate determinant of academic success compared to organizational-level factors such as supervision.

Simultaneously, principal supervision and instructional motivation significantly influence students' academic achievement; however, their combined contribution explains only 30.7% of the total variance. This indicates that students' academic achievement is a complex and multidimensional construct influenced by various other factors beyond the scope of this study. These may include teaching effectiveness, learning environment, socio-economic background, and individual student characteristics.

From a theoretical standpoint, this study reinforces the integrated model of educational effectiveness, where leadership and motivation interact within a broader system that shapes learning outcomes. Practically, the findings suggest that improving student achievement requires a dual strategy: strengthening instructional supervision at the school level while simultaneously fostering student motivation through engaging and student-centered teaching practices.

Despite its contributions, this study has several limitations. The relatively small sample size and the use of purposive sampling may limit the generalizability of the findings. Additionally, the study focuses on a limited set of variables, which may not fully capture the complexity of factors influencing academic achievement. Therefore, future research is recommended to incorporate additional variables, such as teacher competence, school climate, and parental involvement, and to employ more robust research designs with larger and more diverse samples.

In conclusion, enhancing both the quality of principal supervision and the level of instructional motivation is essential for improving students' academic achievement. However, greater emphasis should be placed on developing motivational learning environments, as motivation emerges as the most influential factor in this study.

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