

## The Relationship Between the Effectiveness of School Principal Leadership in Improving the Quality of Education

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### Article Info

#### Article history:

Received Mar 31, 2025

Revised May 12, 2025

Accepted Jun 29, 2025

Online First Jun 30, 2025

#### Keywords:

Education

Headmaster

Leadership

### ABSTRACT

**Purpose of the study:** The aim of this research is to provide insight and knowledge regarding the effectiveness of school principal leadership in relation to improving the quality of education.

**Methodology:** This research uses a descriptive approach. This research uses questionnaires, interviews and documentation methods. The research subjects were 30 respondents, using population techniques. Data collection uses a questionnaire instrument to collect data on the effectiveness of school principal leadership with efforts to improve the quality of education. The collected research data was analyzed using descriptive statistical analysis techniques. Testing research hypotheses uses correlation analysis.

**Main Findings:** The results of this research found that there is a relationship between the effectiveness of the principal's leadership and efforts to improve the quality of education at the Sudirman Islamic Vocational School Ungaran, this can be seen from the significance value  $<0.05$ . The significance value is Sig. (2-tailed) obtained is 0.000. So the better the effectiveness of the school principal's leadership, the better the efforts to improve the quality of education. The strength of the relationship can be seen from the Pearson correlation value of 0.460 which is categorized as having a moderate relationship.

**Novelty/Originality of this study:** This research has the novelty of exploring the important role of principals in stimulating innovation, driving collaboration, and building supportive learning environments to improve the overall quality of students' educational experiences.

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## 1. INTRODUCTION

Education is the main factor in the formation of the human person. Education plays a very important role in shaping the goodness or badness of the human person according to normative standards [1], [2]. Realizing this, the government is very serious about handling the education sector, because with a good education system it is hoped that the nation's next generation will emerge with quality and ability to adapt to life in society, nation and state [3]. Educational reform is a response to developments in global demands as an effort to adapt the education system in an effort to develop human resources to meet the demands of the developing era [4]-[6]. In accordance with the development of society and the development of education, the obligations and responsibilities of educational leaders in general, school principals in particular, are also experiencing development and change [6]-[8].

Changes and educational goals are the scope of responsibility under the leadership of the school principal. In this regard, the principal as an educational leader must develop the potential and abilities that exist within him, one of which is the effectiveness of the principal's leadership, where the effectiveness of the principal's leadership is an effective strategy in improving the quality of education [10], [11]. Because school principals play a very important role in improving the quality of education. The ability of the school principal as an educational leader is the main determining factor in empowering teachers and improving the quality of the learning process [10]-[13]. Because, the principal has a very important role and is the key to success who must pay attention to what happens to students at school.

The principal is a teacher who is appointed to occupy a structural position in the school, he is assigned to manage the school. A school principal is successful if they understand the existence of the school as a complex organization, and are able to carry out the role of the principal as someone who is given the responsibility to lead the school [14]. The character and effectiveness of the school principal's leadership are the dominant factors in the success of the established managerial system [15]-[17]. Potential that is not considered and cultivated will result in not achieving the expected goals. A person's leadership character should be synergistic with the efforts and work effectiveness of his subordinates [18].

In this context, the principal's leadership plays a role not only in resource management but also as an agent of change, facilitating innovation and creating a conducive learning environment [19], [20]. Visionary, communicative, and responsive leadership to the needs of the school community will have a direct impact on improving the quality of education [21], [22]. This aligns with the demands of 21st-century education, which emphasizes collaboration, creativity, critical thinking, and the use of technology in the teaching and learning process [23]-[25].

Numerous previous studies have shown that the effectiveness of principal leadership has a significant relationship with teacher performance, school climate, and student achievement [26]-[28]. These studies also emphasize that effective leadership must combine managerial, instructional, and socio-cultural aspects. However, there remains a gap in research directly linking leadership effectiveness to efforts to improve the quality of education in Islamic-based educational institutions such as Islamic Vocational High Schools.

Sudirman Islamic Vocational High School in Ungaran is an interesting example to study because, although not a top-ranked school, it has succeeded in attracting widespread interest and producing competent, work-ready graduates. This success is inseparable from the principal's ability to integrate all school elements with an effective leadership system. Other successes achieved after implementing effective leadership include improved teacher performance, employee discipline, administrative order, and student academic and non-academic achievement [29], [30].

The novelty of this research lies in its focus, which specifically links the effectiveness of principal leadership to improving the quality of education in Islamic-based vocational high schools. While many studies have discussed principal leadership in general, few have examined its role in the context of Islamic vocational schools, which have unique managerial characteristics, curricula, and organizational cultures. The urgency of this research arises from the urgent need to strengthen the role of educational leadership amidst the challenges of the industrial revolution 4.0, socio-cultural dynamics, and demands for increased graduate competitiveness. By uncovering a significant relationship between effective leadership and educational quality at Sudirman Islamic Vocational High School in Ungaran, this research is expected to serve as a practical reference for principals, teachers, and policymakers in formulating leadership strategies oriented towards continuous quality improvement.

Based on this background, this study aims to determine the relationship between the effectiveness of principal leadership and efforts to improve educational quality at Sudirman Islamic Vocational High School Ungaran. This research is expected to provide theoretical contributions to the development of educational leadership science and practical benefits for principals and educational policymakers in formulating strategies for sustainable educational quality improvement.

## **2. RESEARCH METHOD**

### **2.1. Research Approach and Design**

The researcher used a descriptive approach, while this study is descriptive research. Descriptive research falls into the quantitative category, which means that descriptive research aims to uncover facts, conditions, variables, and phenomena that occur during the research process and present them as they are [31], [32].

This research leads to a parallel correlation study, using a questionnaire technique. A correlation study is a study that only seeks the relationship between two or more variables, without giving special treatment to one of the variables [33], [34]. The author only seeks the relationship between variable x, namely the Effectiveness of Principal Leadership, and variable y, namely improving the quality of education.

## 2.2. Population and Sample

The population in this study is the teachers of Sudirman Islamic Vocational High School, Ungaran, totaling 30 people. The sample is a portion or representative of the population being studied [35], [36]. For mere guidance, the subjects are less than 100, it is better to take all of them, so that the research is a population study. Furthermore, if the subjects are large, they can be taken between 10-15% or 20-25% or more. The number of teachers of Sudirman Islamic Vocational High School, Ungaran, is 30 people, meaning less than 100 people, so the researcher did not use a sample in this study but used population research.

## 2.3. Data Collection Methods

This research is a field to find data related to the problem, either in the form of documentation or strong and reliable information, what is meant by the field here is the location of the research, namely the Islamic Vocational High School Sudirman Ungaran. The types of data collection methods are questionnaires. Questionnaires are a number of written questions used to obtain information from respondents in the sense of reports about their personalities, or things they know [37], [38]. In this study, a direct questionnaire was used aimed at teachers of the Islamic Vocational High School Sudirman Ungaran to find data on the Relationship between the Effectiveness of Principal Leadership and Efforts to Improve the Quality of Education at the Islamic Vocational High School Sudirman Ungaran.

## 2.4. Research Instruments

To collect the data needed to compile this research, the author created a research instrument containing questions about the variables to be studied and the data to be collected. The research instrument used was a questionnaire. A questionnaire is a non-test research instrument [39], [40].

## 2.5. Data Analysis

Data analysis is the process of simplifying data into a form that is easier to read and interpret. In the preliminary analysis, the author used a simple frequency distribution table for each variable studied. In measuring the variable, the implementation of the principal's leadership effectiveness was used as the X variable, and the improvement in educational quality was used as the Y variable. Further analysis is a continuation of the preliminary analysis, namely testing existing variables. In this further analysis, the author uses the product-moment correlation formula. Hypothesis testing is conducted after the results of further analysis are known [41], [42]. In the correlation significance test, the null hypothesis  $H_0$  is tested.

## 3. RESULTS AND DISCUSSION

Based on the results of the analysis of the data that has been collected, the results of the frequency distribution of answers related to the effectiveness of the leadership of school principals at Islamic Vocational School Sudirman Ungaran are presented in table 1 below:

Table 1. Frequency distribution of answers to the leadership effectiveness of school principals at Islamic Vocational School Sudirman Ungaran

The effectiveness of the Principal's leadership	Interval	Frequency	Percentage
Very Good	37 – 40	14	46.7%
Good	33 – 36	12	40.0%
Not Good	29 – 32	2	6.7%
Very not Good	25 - 28	2	6.7%
Total			100%

From the analysis above, it can be concluded that the effectiveness of the principal's leadership at Sudirman Islamic Vocational School Ungaran is 46.7% for very good perception, 40.0% for good perception, 6.7% for bad perception and 6.7% for very bad perception.

Table 2. Frequency distribution of answers to efforts to improve the quality of education at the Sudirman Islamic Vocational School, Ungaran

The effectiveness of the Principal's leadership	Interval	Frequency	Percentage
Very Good	43 – 46	12	40.0%
Good	39 – 42	13	43.3%
Not Good	35 – 38	4	13.3%
Very not Good	31 - 34	1	3.3%
Total			100%

From the analysis above, it can be concluded that the classification of efforts to improve the quality of education at Sudirman Islamic Vocational School Ungaran is 40.0% for very good perception, 43.3% for good perception, 13.3% for bad perception and 3.3% for very bad perception.

Then an assumption test is carried out to fulfill the hypothesis test in the form of a correlation test. The assumptions that must be met are that the data is normally distributed and linear. Table 3 below presents the results of the data normality test on the relationship between the effectiveness of the principal's leadership and efforts to improve the quality of education at the Sudirman Islamic Vocational School, Ungaran, using SPSS.

Table 3. Results of normality test data on perceptions of the effectiveness of the principal's leadership and efforts to improve the quality of education at Sudirman Islamic Vocational School, Ungaran

One-Sample Kolmogorov-Smirnov Test			
		Effectiveness	Effort
N		30	30
Normal Parameters <sup>a,b</sup>	Mean	67.7586	61.2321
	Std. Deviation	6.27449	11.2104
Most Extreme Differences	Absolute	.058	.069
	Positive	.054	.068
	Negative	-.058	-.069
Kolmogorov-Smirnov Z		.685	.812
Asymp. Sig. (2-tailed)		.726	.324

a. Test distribution is Normal.

b. Calculated from data.

Based on the test results above, a decision can be made that the data is normally distributed with a significance value  $> 0.05$ . The significance value for data on perceptions of the effectiveness of the school principal's leadership is 0.726, then for data on perceptions of efforts to improve the quality of education, the significance value is 0.324. So  $H_0$  is accepted,  $H_1$  is rejected.

Next, a linearity prerequisite test was carried out on the perception of the effectiveness of the principal's leadership and efforts to improve the quality of education at the Sudirman Islamic Vocational School, Ungaran, presented in table 4 below:

Table 4. Results of linearity test data on perceptions of the effectiveness of the principal's leadership and efforts to improve the quality of education at Sudirman Islamic Vocational School, Ungaran

ANOVA Table						
			Sum of Squares	df	Mean Square	F
Effectiveness * Effort	Between Groups	(Combined)	10737.364	30	268.434	3.948
		Linearity	7362.986	1	7362.986	108.290
		Deviation from Linearity	3374.378	29	86.523	1.273
	Within Groups		6731.341	99	67.993	
	Total		17468.705	139		

Based on table 4 above, the significance value for deviation from linearity is 0.171, this result is more than the value of 0.05, meaning that the data on the perception of the effectiveness of the principal's leadership and efforts to improve the quality of education at the Sudirman Islamic Vocational School, Ungaran, are linearly related.

With the assumptions fulfilled to continue with the hypothesis test in the form of a correlation test, the following table 5 presents the results of the correlation test data on perceptions of the effectiveness of the school principal's leadership and efforts to improve the quality of education at Sudirman Islamic Vocational School, Ungaran.

Table 5. Results of correlation test data on perceptions of the effectiveness of the principal's leadership and efforts to improve the quality of education at the Sudirman Islamic Vocational School, Ungaran

Correlations			
		Effectiveness	Effort
Effectiveness	Pearson Correlation	1	.460*
	Sig. (2-tailed)		.000
	N	140	140
Effort	Pearson Correlation	.460*	1
	Sig. (2-tailed)	.000	

N	140	140
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\*\*. Correlation is significant at the 0.01 level (2-tailed).

Based on the test results above, a decision can be made that there is a relationship between the effectiveness of the principal's leadership and efforts to improve the quality of education at Sudirman Islamic Vocational School Ungaran, this can be seen from the significance value  $< 0.05$ . The significance value is Sig. (2-tailed) obtained is 0.000. So  $H_1$  is accepted,  $H_0$  is rejected. With these results, the hypothesis that the author proposes is: there is a significant positive relationship between the effectiveness of the school principal's leadership and efforts to improve the quality of education at the Sudirman Islamic Vocational School, Ungaran, which can be accepted. In this way, it can be concluded that the better the effectiveness of the school principal's leadership, the better the efforts to improve the quality of education. The strength of the relationship can be seen from the Pearson correlation value of 0.460 which is categorized as having a moderate relationship.

The results of the study indicate a significant positive relationship between the effectiveness of principal leadership and efforts to improve the quality of education at Sudirman Islamic Vocational High School, Ungaran, with a significance value of 0.000 ( $< 0.05$ ) and a correlation coefficient of 0.460, which is in the moderate relationship category. This finding reinforces the view that principal leadership is a key factor in mobilizing all school resources to achieve the desired educational goals. The more effective the leadership is, the more optimal the quality improvement strategies that can be implemented.

Theoretically, these results align with previous research confirming that the principal plays a strategic role as a manager, supervisor, and learning leader [43], [44]. In the context of Islamic-based vocational schools, this role becomes even more crucial because the principal not only manages academic and non-academic management but also ensures that the entire educational process aligns with Islamic values. The implementation of effective leadership at Sudirman Islamic Vocational School in Ungaran is reflected in the success in improving teacher and staff discipline, administrative order, and student academic and non-academic achievements.

This success factor can be attributed to the principal's ability to balance managerial and instructional aspects. From a managerial perspective, the principal is able to optimize the use of school resources, including facilities, funds, and teaching staff [45], [46]. From an instructional perspective, the principal provides direction and supervision to teachers to ensure that the learning process meets established quality standards. The synergy between these two aspects results in increased teacher motivation and a conducive learning climate for students [47], [48].

Nevertheless, the correlation found was moderate, indicating that improvements in educational quality are influenced not only by the effectiveness of principal leadership, but also by other factors such as teacher quality, parental involvement, government support, and the availability of infrastructure. Therefore, the results of this study emphasize the importance of a collaborative approach between principals, teachers, education staff, and external stakeholders in achieving optimal educational quality.

Furthermore, these findings have practical implications for developing principal leadership capacity. Leadership training that emphasizes managerial competencies, communication skills, and strong team-building skills needs to be continuously improved [49], [50]. In today's era of rapid change, principals also need to be adaptive to educational innovations, including the use of technology in the learning process and school management.

The results of this study provide several important implications for improving the quality of education in Islamic-based vocational high schools. First, the effectiveness of the principal's leadership has been shown to play a significant role in driving school achievement, both in academic and non-academic areas. These findings can serve as a basis for foundations, local governments, and education offices to provide ongoing support for strengthening the capacity of principals through training, mentoring, and professional development programs. Second, this study demonstrates that improving educational quality requires visionary, communicative, and adaptive leadership, so that quality improvement strategies can be integrated with Islamic values and the school's local needs.

Despite its positive contribution, this study has limitations that require consideration. First, the study's scope was limited to one school, so the results cannot be broadly generalized to other schools with different characteristics. Second, the research data was collected over a specific period, thus not capturing the dynamics of change that may occur over the long term. Third, this study used a descriptive correlational approach, so it cannot fully explain the causal relationship between leadership effectiveness and educational quality.

These limitations open up opportunities for further research to expand the scope of study by involving more schools, using a longitudinal research design, and combining quantitative and qualitative approaches. This approach would provide a more comprehensive picture of how principal leadership contributes to improving educational quality across various contexts and school levels.

#### 4. CONCLUSION

The conclusion from the results of this research is that there is a relationship between the effectiveness of the principal's leadership and efforts to improve the quality of education at the Sudirman Islamic Vocational School Ungaran, this can be seen from the significance value  $<0.05$ . The significance value is Sig. (2-tailed) obtained is 0.000. In this way, it can be concluded that the better the effectiveness of the school principal's leadership, the better the efforts to improve the quality of education. The strength of the relationship can be seen from the Pearson correlation value of 0.460 which is categorized as having a moderate relationship.

#### ACKNOWLEDGEMENTS

The researcher would like to express his gratitude for the support and assistance from the research team and school who have helped complete this scientific paper.

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