

Enhancing Islamic Religious Education Effectiveness in Private Vocational High Schools

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ABSTRACT

Education is a planned process that is essential for exploiting the potential of students, including those in Islamic Religious Education (IRE). However, IRE teaching Effectiveness in the private vocational high schools in Bogor Regency is not ideal. The study will examine the connection between transformational leadership, cooperative models of learning, and learning motivation on the Effectiveness of teaching IRE, and to make strategic recommendations that can be applied in learning institutions. A quantitative research approach was employed, and the sample size consisted of a proportionate number of participants, totaling 168. Data were analyzed through the path analysis and also through the SITOREM (Scientific Identification Theory to Conduct Operation Research on Education Management). The outcomes demonstrate that transformational leadership and the cooperative learning model have a strong and significant direct correlation with instructional Effectiveness. Additionally, learning motivation is a mediating variable that strengthens the relationship between these variables and the increase in instructional Effectiveness. The other need that the research has identified is the necessity to enhance various indicators of progress, research conditions, and achievement to maximize instructional outcomes. The findings of this study recommend that educational institutions should increase the application of transformational leadership practices, adopt cooperative learning more frequently, and introduce strategies to enhance student learning motivation as an instrument to increase the IRE as a whole in a vocational high school.

Keywords

Cooperative Learning
Islamic Religious Education
Learning Effectiveness
Learning Motivation
Transformational
Leadership

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Introduction

Education is an intended activity that is meant to maximize the potential of human beings by engaging in systematic teaching and learning processes [1]. Education enables the learners to be nurtured in order to enhance their intellectual, social, emotional, and physical capabilities in a balanced way. The education sector plays a pivotal role in the national development system because it is the basic foundation of human capital improvement in terms of quality [2]. It is believed to be the major foundation of the increase in population involvement in social, economic, and political life. Being a part of the national teaching system, Islamic Education is an essential factor in shaping the character and personal qualities of students. IRE is not only a source of conveying religious knowledge according to Islamic doctrines, but it is a process of internalising the Islamic values that are intended to create a complete human being (*insan kamil*) of high integrity, spiritual, and moral values. Hence, effectiveness is one of the key factors in determining the success of IRE learning because the learning must have the capacity to combine cognitive, affective, and psychomotor domains in a balanced way.

Consistent with this background, other researchers support that the effectiveness of learning is affected by several factors. The effectiveness of learning depends on the readiness of the teacher [3], the appropriateness of learning strategies [4], the instructional media that the teacher uses [5], learning models [6] and the degree of the students' learning motivation. According to Fadila et al. [7], one of the most important indicators of educational quality refers to learning effectiveness, and Hermawan et al. [8] refer to the significance of human, material, and procedural factors in transforming the behavior of students positively. Warsono and Hariyanto [9] place particular emphasis on five key elements of effective learning, namely, clarity, variety, task orientation, engagement of students, and their rate of success.

The application of video-based learning media supported by technology has been shown to enhance students' learning motivation and facilitate the systematic and comprehensive delivery of instructional content [10]. Cooperative learning models have been widely recognized for their capacity to promote positive interdependence, promotive interaction, and individual accountability among learners. Armiyanti et al. [11] further argue

that transformational leadership encourages fundamental change and innovation through idealized influence, motivational inspiration, intellectual stimulation, and individualized consideration. Learning motivation, as defined by Hermawan et al. [12], arises from both internal and external factors that drive students' engagement in the learning process.

While previous studies have empirically examined the roles of instructional media, cooperative learning, transformational leadership, and learning motivation, these variables have predominantly been investigated in isolation or in partial combinations, particularly within general education contexts. In contrast, the present study is novel in that it integrates transformational leadership, cooperative learning strategies, and learning motivation into a single, cohesive analytical framework specifically applied to Islamic Religious Education (IRE) in vocational high schools. To the best of our knowledge, no prior research has systematically examined the synergistic effects of these three variables on IRE learning effectiveness within this educational setting.

By adopting an integrated research model, this study advances existing literature by demonstrating how leadership style, instructional strategy, and motivational factors jointly influence the effectiveness of Islamic Education learning, rather than treating them as independent determinants. This approach not only clarifies the unique contribution of each variable within a unified framework but also reveals its combined impact on instructional effectiveness.

Accordingly, this study aims to examine and explain how the synergistic interaction of transformational leadership, cooperative learning implementation, and learning motivation enhances the effectiveness of Islamic Education teaching. The findings are expected to contribute to the theoretical development of Islamic education studies by extending existing models of instructional effectiveness, while also offering practical insights for improving the quality of IRE teaching. Furthermore, the results may serve as a reference for future research and provide implications for innovative and effective educational practices that support students' character development.

Material and Methods

In this study, a quantitative research design employing a survey method was used to assess strategies for improving learning effectiveness. Two analytical approaches were applied, namely path analysis and the Scientific Identification Theory to Conduct Operation Research in Education Management (SITOREM). As illustrated in Figure 1, the research process began with hypothesis testing using path analysis to examine the strength and direction of both direct and indirect relationships among the independent and dependent variables.

Following the path analysis, SITOREM was employed as a second-level analytical tool to determine priority areas for improvement. The selection of SITOREM was intentional and

methodologically justified, as this approach enables the integration of empirical relationship strength derived from statistical analysis with practical considerations, including cost, benefit, urgency, and the relative importance of each indicator [13]. Unlike other prioritization or decision-making models that primarily rely on subjective weighting or hierarchical comparisons, SITOREM provides a more comprehensive framework by combining quantitative evidence with managerial decision criteria.

Through the application of SITOREM, the indicators of each variable were systematically evaluated, allowing for the identification of indicators that require improvement as well as those that should be maintained. This integrated approach enhances the practical relevance of the research findings by offering clear, evidence-based recommendations for improving learning effectiveness.

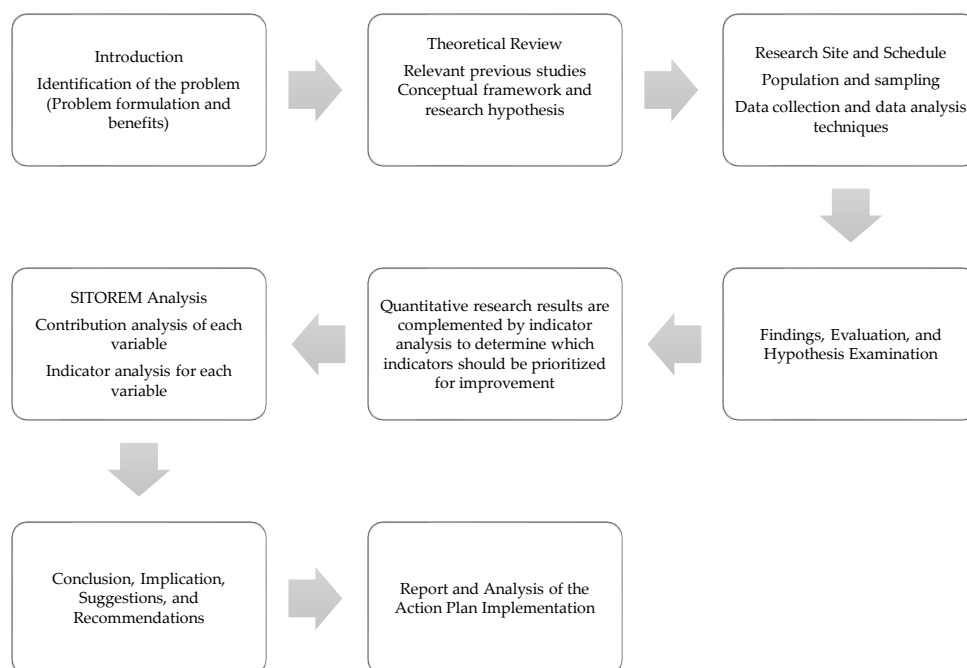


Fig. 1. Path Analysis and SITOREM Analysis Research Design

The research was performed on students at a private Vocational High School (VHS) in Bogor Regency during Islamic Education sessions. The dependent variable in this study is learning effectiveness, whereas the independent variables consist of transformational leadership, the use of the Cooperative Learning model, and learning motivation (Figure 2). Data were collected through the distribution of instruments to respondents and were subsequently analysed statistically to determine the relationships and effects among the variables. The population consisted of 289 teachers. The sample size was determined using the Slovin formula [14–15], resulting in a total of 168 respondents who proportionally represented the population. Participants were chosen by simple random selection to guarantee that each individual in the population had an equal opportunity to be included in the study.

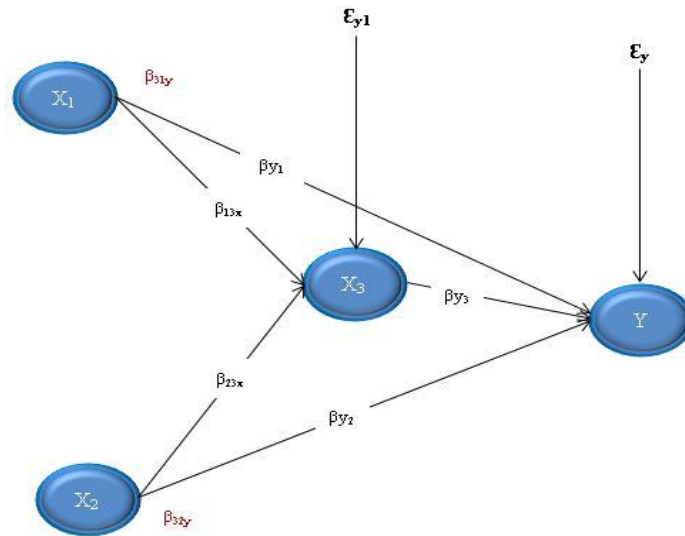


Fig. 2. Model of the Relationship between Research Variables

Description:

X_1 : Transformational Leadership

X_2 : Implementation of the Cooperative Learning Model

X_3 : Learning Motivation

Y : Learning Effectiveness

Results and Discussions

A. Path Analysis

1. Convergent Validity Test

Construct validity was evaluated by convergent validity, which was established based on the loading factor and the Average Variance Extracted [16]. An instrument meets the criterion for convergent validity when both the loading factor and AVE values are above 0.5. The results of the convergent validity evaluation are presented in Table 1.

Table 1. Validity Test Result

Variable	Dimension	Indicator	Loading Factor	AVE
Learning Effectiveness (Y)	-	Lucidity	0.781	0.637
		Diversity	0.829	
		Focus on the task	0.792	
		Participation in education	0.841	
		Academic achievement rates	0.745	
Transformational Leadership (X_1)	-	Exemplary influence	0.748	0.646
		Encouraging motivation	0.863	
		Cognitive simulation	0.834	
		Individual support	0.763	
Implementation of Cooperative Models Learning (X_2)	-	Encouraging collaboration	0.707	0.595
		Personal responsibility	0.748	
		Social and small-group competencies	0.843	
		Group reflection	0.728	
Learning Motivation (X_3)	Intrinsic Dimensions	Achievement	0.838	0.565
		Confession	0.810	
		Responsibility	0.855	

Variable	Dimension	Indicator	Loading Factor	AVE
		Progress	0.799	
		Remuneration	0.804	
	Extrinsic Dimensions	Academic environment	0.851	
		Condition	0.805	
		Research methodology	0.771	

2. Discriminant Validity

Cross-loading is used to assess discriminant validity; it necessitates that the cross-loading value for a given variable be greater than the correlation values of indicators in other variables. These findings are regarded as reliable for assessing the associated variable. Table 2 displays the findings of the cross-loading analysis.

Table 2. Results of Discriminant Validity Testing

Indicator	Transformational Leadership	Implementation of Cooperative Model Learning	Learning Motivation		Learning Effectiveness
			Intrinsic	Extrinsic	
X1	0.748				
X1	0.863				
X1	0.834				
X1	0.763				
X2		0.707			
X2		0.748			
X2		0.843			
X2		0.728			
X3.1			0.838		
X3.1			0.810		
X3.1			0.855		
X3.1			0.799		
X3.2				0.804	
X3.2				0.851	
X3.2				0.805	
X3.2				0.771	
Y					0.781
Y					0.829
Y					0.792
Y					0.841
Y					0.745

3. Construct Reliability and Cronbach's Alpha Calculations

The construct reliability test results demonstrated that all variables in this study displayed Cronbach's Alpha and Composite Reliability values over the minimum threshold of 0.70, indicating that the instrument utilised is reliable.

Table 3. Results of Construct Reliability

Variable	Cronbach's Alpha	Composite Reliability
Transformational Leadership (X ₁)	0.858	0.898
Implementation of Cooperative Model Learning (X ₂)	0.817	0.879
Learning Motivation (X ₃)	0.754	0.843
Learning Effectiveness (Y)	0.890	0.912

The Transformational Leadership variable (X_1) demonstrates a Cronbach's Alpha of 0.858 and a Composite dependability of 0.898, indicating exceptional dependability. The use of the Cooperative Model Learning variable (X_2) resulted in a Cronbach's Alpha of 0.817 and a Composite Reliability of 0.879, indicating reliability. The Learning Motivation variable (X_3) demonstrates a Cronbach's Alpha of 0.754 and a Composite Reliability of 0.843, indicating that its indicators consistently measure the learning motivation construct. The Learning Effectiveness (Y) variable demonstrates superior reliability, as indicated by a Cronbach's Alpha of 0.890 and a Composite Reliability of 0.912, reflecting a substantial degree of internal consistency. The findings indicate that all constructs in this study display high reliability, making them suitable for further exploration.

4. Testing Determination Coefficient Test (R^2)

The coefficient of determination test results indicate that the Learning Motivation variable (X_3) implies that the R-Square can only explain 25% of the variance in learning motivation in the model. In contrast, the rest of the factors correlate with learning motivation but are outside the model. The adjusted R-squared value of 0.248 means that the number of variables is already adjusted in it, and therefore, its predictive ability is relatively constant.

Meanwhile, for the Learning Effectiveness (Y) variable, an R-squared of 0.438 was obtained. This means that 43.8% of the variation in learning effectiveness can be explained by the independent variables used in the study. The adjusted R-squared value of 0.430 also reflects that the model has a reasonably good predictive ability after being corrected for the number of variables in the model. Thus, this research model can explain some of the variation in learning motivation and learning effectiveness. However, there are still contributions from other factors outside the model that need to be considered in further research.

5. Predictive Relevance (Q^2)

Based on the results of the Predictive Relevance (Q^2) test, the Q^2 value for the learning motivation variable is 0.141, and for the learning effectiveness variable is 0.270. This indicates that both models have sufficient predictive relevance, as all Q^2 values are greater than 0. Thus, this research model is capable of adequately explaining the observed data variation, particularly for the learning effectiveness variable, which has a higher Q^2 value compared to learning motivation. This means that the exogenous constructs in this study provide sufficient predictive contributions to the endogenous variables, so the model can be considered relevant for use in decision-making and the formulation of strategies to improve learning effectiveness.

6. Hypothesis Testing

Significance testing is conducted to ascertain if exogenous variables influence endogenous variables [17]. A substantial effect is indicated when the estimated t-value meets or exceeds the crucial t-value of 1.96, or when the p-value falls below the 0.05 significance threshold. Figure 3 and Table 4 provide the outcomes of the significance testing and model evaluation.

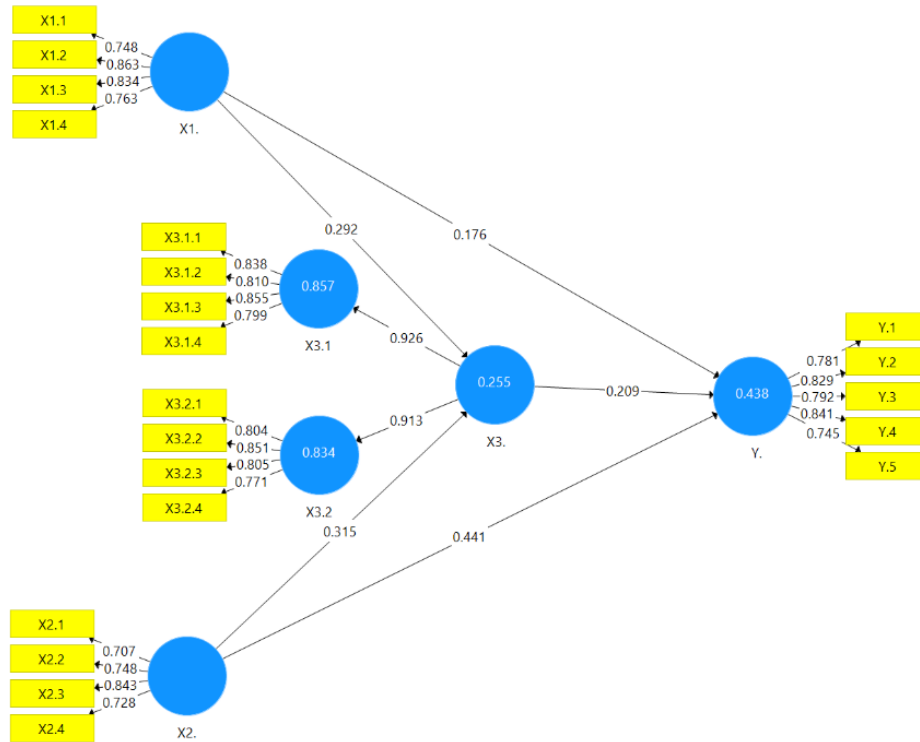


Fig. 3. SEM-PLS Analysis

Table 4 presents the results of hypothesis testing, including path coefficients, t statistics, and p values. All direct relationships are positive and statistically significant ($p < 0.05$). X2 shows the strongest direct effect on Y ($\beta = 0.441$), followed by X3 and X1. Both X1 and X2 significantly influence X3. Additionally, X3 mediates the relationships between X1 and Y, and between X2 and Y, indicating significant indirect effects and confirming the mediating role of X3 in the structural model.

Table 4. Hypotheses Testing Result

No.	Influence	Coefficient	t statistics (O/STDEV)	p value
1.	(X ₁) -> (X ₃)	0.292	5.099	0.000
2.	(X ₁) -> (Y)	0.176	3.039	0.002
3.	(X ₂) -> (X ₃)	0.315	4.947	0.000
4.	(X ₂) -> (Y)	0.441	7.677	0.000
5.	(X ₃) -> (Y)	0.209	3.429	0.001
6.	(X ₁) -> (X ₃)-> (Y)	0.061	2.518	0.012
7.	(X ₂) -> (X ₃)-> (Y)	0.066	2.943	0.003

7. The Impact of Transformational Leadership (X_1) on Learning Motivation (X_3)

The t-statistics of 5.099 and the p-statistic of 0.000 suggest that the effect of Transformational Leadership (X_1) on Learning Motivation (X_3) is of a good fit. The t-statistic is greater than 1.96, and the p-value is less than 0.05; therefore, Transformational Leadership (X_1) has a significant effect on Learning Motivation (X_3). The resulting coefficient is positive (0.292), and the checks show that greater transformational leadership is associated with higher learning motivation. The results may be compared with the outcomes of Hermawan et al. [18] who claim that transformational leadership has a positive impact on motivation in the learning process.

8. The Impact of Transformational Leadership (X_1) on Learning Effectiveness (Y)

Transformational Leadership (X_1) showed a t-statistic of 3.039 and a p-value of 0.002 for Learning Effectiveness (Y). The strong effect of Transformational Leadership (X_1) on Learning Effectiveness (Y) has a t-statistic (1.96) that exceeds the p-value (0.05), indicating a significant relationship between Transformational Leadership (X_1) and Learning Effectiveness (Y). The positive coefficient of 0.176 indicates that higher transformational leadership is more likely to make the learning process more effective. These results correspond to the research conducted by Hermawan et al. [14] who also confirmed that transformational leadership positively affects learning performance.

9. The Impact of Cooperative Learning Model Implementation (X_2) on Learning Motivation (X_3)

This provides a t-statistic that confirms the effect of implementation of the Cooperative Learning Model (X_2) on Learning Motivation (X_3), and that is 4.947 with a p-value of 0.000. As the t-statistic is more than 1.96, and the p-value is lower than 0.05, one can come to the conclusion that the Cooperative Learning Model factor of implementation (X_2) has a significant influence on the Learning Motivation factor (X_3). Such findings can be noticed because the value of 0.315 is positive, and this means that the more the Cooperative Learning Model is executed, the more the students are likely to be prepared to learn. This hypothesis testing outcome is consistent with studies by Hermawan et al. [19], who discovered a positive outcome of the cooperative learning model on learning motivation.

10. The Impact of Cooperative Learning Model Implementation (X_2) on Learning Effectiveness (Y)

The t-statistic and p-value were 7.677 and 0.000, respectively, in the test of the effect of the Cooperative Learning Model implementation (X_2) on the Learning Effectiveness (Y). Since the t-statistic exceeds 1.96, the p-value falls below 0.05, and it can be assumed that the Cooperative Learning Model (X_2) is significantly influencing Learning Effectiveness (Y). The fact that the positive coefficient value is 0.441 indicates the likelihood of stimulated

learning by the increased adherence to the Cooperative Learning Model. These findings are consistent with the findings of Rusnadi et al. [20], who discovered the same with the effects of the cooperative learning model as positive to the learning effectiveness.

11. The Impact of Learning Motivation (X_3) on Learning Effectiveness (Y)

The t-statistic was 3.429 and a p-value of 0.001 in the analysis of the effect of Learning Motivation (X_3) on Learning Effectiveness (Y). Because $t = 2.84$, and the p-value = 0.001, we may conclude that Learning Motivation (X_3) significantly impacts Learning Effectiveness (Y). Since its coefficient value is positive at 0.209, it shows that a stronger learning motivation is associated with improved learning outcomes. The results are in line with the findings of Rahmananda et al. [21], who also revealed that learning motivation positively influences the effectiveness of learning.

12. The Influence of Transformational Leadership (X_1) on Learning Effectiveness (Y)
Mediated by Learning Motivation (X_3)

The transformational leadership (X_1) on Learning Effectiveness (Y) via Learning Motivation (X_3) yielded a t-statistic of 2.518 and a p-value of 0.012. Because the t-value is greater than 1.96 and the p-value is less than 0.05, it is concluded that Transformational Leadership (X_1) does make a significant difference to Learning Effectiveness (Y). It means that Learning Motivation (X_3) mediates the connection between Transformational Leadership (X_1) and Learning Effectiveness (Y). Such findings can be aligned with those provided by Puspasari [22], who had also found that transformational leadership has a positive impact on the effectiveness of learning through learning motivation.

13. The Impact of Cooperative Learning Model Implementation (X_2) on Learning Effectiveness (Y) Through Learning Motivation (X_3)

The mediation analysis of the implementation of the Cooperative Learning Model (X_2) on Learning Effectiveness (Y) by Learning Motivation (X_3) manifested in a t-statistic of 2.943 with a p-value of 0.003. As the t-statistic is higher than 1.96 and the p-value is less than 0.05, it can be concluded that the use of the Cooperative Learning Model (X_2) has a significant impact on Learning Effectiveness (Y) via Learning Motivation (X_3). This is evident in the fact that Learning Motivation (X_3) is the mediator between Cooperative Learning Model implementation (X_2) and Learning Effectiveness (Y). These findings are backed up by the outcomes of Hermawan et al. [8], as they also demonstrated that the cooperative learning model has a positive influence on the level of learning efficiency mediated by the learning motivation.

B. SITOREM Analysis

SITOREM analysis is executed after a path analysis to evaluate the relationships among variables. This analysis seeks to elucidate the contribution of each independent variable to the

dependent variable through coefficient computations and indicator averages. The SITOREM technique evaluates each indicator of transformational leadership, cooperative learning model implementation, and learning motivation variables according to the criteria of cost, benefit, urgency, and priority.

The results of this analysis are then used to develop improvement priorities by categorising which indicators are in the weak category and require immediate improvement, and which indicators are already good and should be maintained. This process yields operational and applicable recommendations that can serve as a basis for schools to develop an action plan to improve the effectiveness of Islamic Religious Education instruction.

Table 5. SITOREM Analysis for the Transformational Leadership Variable

Transformational Leadership				
Indicator in preliminary condition		Indicator after the expert weighting		Indicator Value
1	Exemplary influence	1 st	Encouraging motivation (27.37)	3.88
2	Encouraging motivation	2 nd	Personalised attention (25.33)	4.10
3	Cognitive simulation	3 rd	Exemplary influence (24.16)	4.00
4	Personalized attention	4 th	Cognitive simulation (23.14)	3.61

Based on the results in Table 5 for the transformational leadership variable, the analysis shows that the encouraging motivation indicator is the top priority with the highest contribution value (27.37). This is followed by personalised attention (25.33), Exemplary influence (24.16), and cognitive stimulation (23.14). This research indicates that the encouraging motivation aspect is the most critical factor to focus on when strengthening transformational leadership in schools. This finding aligns with Bantam et al. [23], who found that transformational leaders, who are capable of arousing enthusiasm, optimism, and hope in their followers, are more effective in bringing about positive change within an organisation. Therefore, strengthening the encouraging motivation and personalised attention indicators should be the top priority. The other indicators should be maintained and continually developed to ensure the optimal implementation of transformational leadership within the school environment.

Table 6. SITOREM Analysis for the Cooperative Learning Model

Implementation of Cooperative Model Learning				
Indicator in preliminary condition		Indicator after the expert weighting		Indicator Value
1	Encouraging collaboration	1 st	Encouraging collaboration (26.47)	3.57
2	Personal responsibility	2 nd	Group reflection (24.54)	4.02
3	Social and small-group competencies	3 rd	Social and small-group competencies (24.51)	3.68
4	Group reflection	4 th	Personal responsibility (24.48)	4.04

Based on the results from Table 6 for the Cooperative Learning model implementation variable, the analysis shows that the promotive interaction indicator has the highest weight (26.47), making it the top priority for improvement. This is followed by group reflection (24.54), social and small-group competencies (24.51), and personal responsibility (24.48). This order of priority indicates that the success of Cooperative Learning implementation is highly dependent on the intensity of positive interactions among students and the teacher's ability to facilitate groups. This finding aligns with Musdalifah's [24] research, which states that the success of cooperative learning is significantly influenced by promotive interaction, which can increase student engagement and strengthen collaboration in completing tasks. Therefore, improving instructional effectiveness through the Cooperative Learning model should first focus on enhancing promotive interaction and group processing, while maintaining the other indicators at a reasonable level.

Table 7. SITOREM Analysis for the Learning Motivation

Learning Motivation				
Indicator in preliminary condition		Indicator after the expert weighting		Indicator Value
1	Achievement	1 st	Progress (14.14)	3.82
2	Confession	2 nd	Remuneration (14.02)	3.84
3	Responsibility	3 rd	Academic environment (13.14)	3.78
4	Progress	4 th	Confession (13.10)	4.14
5	Remuneration	5 th	Responsibility (12.06)	4.56
6	Academic environment	6 th	Research methodology (12.02)	4.56
7	Status	7 th	Achievement (11.12)	3.98
8	Research methodology	8 th	Status (10.40)	4.02

Based on the results in Table 7, the analysis of the learning motivation variable indicates that the progress indicator has the highest weight (14.14), followed by remuneration (14.02) and study conditions (13.14). Therefore, these three indicators are the top priorities that need improvement. Next, the confession, responsibility, and study procedure indicators are in the middle tier, while achievement and status are at the bottom and can be maintained.

This study's findings indicate that boosting student learning motivation will be most effective by creating learning conditions that support student progress and providing appropriate rewards or forms of remuneration. This aligns with Angurah's [25] findings, which state that student learning motivation significantly increases when they perceive progress in their learning outcomes and receive support during the learning process. Therefore, efforts to strengthen learning motivation in private vocational high schools in Bogor Regency should focus on improving students' perceptions of learning progress, the quality of study conditions, and a compensation system that encourages active participation in learning.

Table 8. SITOREM Analysis for the Learning Effectiveness

Learning Effectiveness				
Indicator in preliminary condition		Indicator after the expert weighting		Indicator Value
1	Lucidity	1 st	Focus on task (21.24)	3.78
2	Diversity	2 nd	Diversity (21.06)	3.65
3	Focus on the task	3 rd	Lucidity (20.16)	4.15
4	Participation in education	4 th	Participation in education (19.12)	3.86
5	Academic achievement rates	5 th	Academic achievement rates (18.42)	4.16

Based on the results of the SITOREM analysis in Table 8, the task orientation indicator is the highest priority with a weight of 21.24, followed by variety (21.06) and clarity (20.16). These three indicators should be the primary focus for improving the effectiveness of Islamic Religious Education. The student success rates and learning engagement indicators are next in the ranking, meaning they are in the "maintain" category. The findings of this research show that instructional effectiveness will increase significantly if teachers can design task-oriented lessons and use a variety of strategies. This aligns with Auliyah et al. [26], who found that clarity of delivery, a variety of teaching techniques, and a focus on tasks are the main components influencing the quality of the learning process and achievement of learning outcomes. Therefore, efforts to improve the effectiveness of IRE instruction should focus on enhancing task orientation, developing a variety of methods, and increasing the clarity of delivery.

Table 9. SITOREM Analysis Result

Priority Sequence for Indicator Enhancement		Indicator to be Sustained	
1.	Encouraging collaboration	1.	Group reflection
2.	Social and small-group competencies	2.	Personal responsibility
3.	Progress	3.	Confession
4.	Remuneration	4.	Responsibility
5.	Research methodology	5.	Study Procedure
6.	Achievement	6.	Status
7.	Encouraging motivation	7.	Personalised attention
8.	Cognitive simulation	8.	Exemplary influence
9.	Focus on the task	9.	Lucidity
10.	Diversity	10.	Participation in education
11.	Academic achievement rates		

Based on the analysis from Table 9, the overall SITOREM results indicate that the indicators that should be prioritised for improvement include promotive interaction, interpersonal and small-group skills, progress, remuneration, study condition, achievement, encouraging motivation, and cognitive stimulation. Additionally, the task orientation, variety, and student success rates indicators are also a priority, although they have a lower contribution.

These findings indicate that enhancing the effectiveness of Islamic Religious Education instruction depends not only on the selection of teaching models and strategies but also on improving the quality of interactions among students, creating a conducive learning

environment, and strengthening the teacher's role as an inspirational leader. This is consistent with Hanaris [27] research, which asserts that learning effectiveness is optimally achieved when the learning environment supports academic and social development and when teachers can motivate students. Therefore, indicators already in the "good" category, such as group processing, individual accountability, confession, responsibility, as well as clarity and engagement in learning, must be maintained to support the continuous improvement of overall instructional quality.

Conclusion

The results demonstrate that the effectiveness of Islamic Education can be improved by strengthening transformational leadership, implementing cooperative learning, and enhancing students' learning motivation. Priority improvements should focus on motivation enhancement and cognitive stimulation within transformational leadership, promotive interaction, and small-group skills in cooperative learning, as well as recognition, supportive learning environments, and students' perceptions of success in learning motivation. Practically, these findings suggest that improving the quality of Islamic Education requires integrated efforts to develop transformational leadership practices, consistently apply cooperative learning strategies, and foster students' task focus and engagement through teacher training and institutional support.

Limitation and Suggestions

The principal needs to improve the quality of learning by strengthening Transformational Leadership, implementing the Cooperative Learning Model, and increasing learning motivation through reinforcing task orientation, variety, and high student success rates, while simultaneously maintaining and developing clarity and student engagement in learning. In addition, the Ministry of Education, Culture, Research, and Technology, along with school organizing institutions, needs to play an active role in developing teacher competencies to improve learning effectiveness by providing appropriate guidance in strengthening transformational leadership, implementing cooperative learning models, and boosting learning motivation, in accordance with the findings of this study.

Conflict of Interest

The authors declare no conflict of interest.

References

- [1] H. Wulandari and I. Nurhaliza, "Mengembangkan potensi guru yang profesional dalam proses belajar mengajar," *Didaktik : J. Ilm. PGSD STKIP Subang*, vol. 9, no. 2, pp. 2487–2509, 2023, doi: 10.36989/didaktik.v9i2.990.

- [2] A. Nurdiana, "Peran kepemimpinan dalam pengelolaan sumber daya manusia untuk meningkatkan kualitas pendidikan di STAI Siliwangi Garut," *J. Ekon. Utama*, vol. 2, no. 3, pp. 278–286, 2023, doi: 10.55903/juria.v2i3.127.
- [3] E. Kusumawati, "Efektivitas kerja guru," *JiIP (J. Ilm. Ilmu Pendidik.)*, vol. 6, no. 3, pp. 1487–1492, 2023, doi: 10.54371/jiip.v6i3.1578.
- [4] A. Rahmadani, F. K. S. Harahap, N. Ulkaira, Y. Azhari, and S. Hasibuan, "Efektivitas penggunaan strategi pembelajaran dalam meningkatkan hasil belajar siswa di SD Negeri 060822 Medan," *J. Pendidik. Berkarakter*, no. 1, pp. 54–71, 2024, doi: 10.51903/pendekar.v2i1.566.
- [5] P. W. Saputra and I. G. D. Gunawan, "Pemanfaatan media pembelajaran digital dalam upaya meningkatkan efektivitas pembelajaran di masa Covid-19," in *Prosiding Webinar Nasional IAHN-TP Palangka Raya*, 2021, pp. 86–95. doi: 10.33363/sn.v0i3.94.
- [6] M. Islami and H. Soekamto, "Efektivitas model pembelajaran inquiry menggunakan Quizizz multimedia berbasis gamification terhadap kemampuan berpikir kritis siswa," *J. Ilm. Pendidik. Profesi Guru*, vol. 5, no. 2, pp. 383–392, 2022, doi: 10.23887/jippg.v5i2.48338.
- [7] R. N. Fadila, E. A. Lutfiani, I. S. R. N. Veronika, D. Rachmanto, and N. Arfinanti, "Efektivitas pengelolaan sumber daya sekolah dalam meningkatkan mutu pendidikan," *J. Akuntabilitas Manaj. Pendidik.*, vol. 8, no. 1, pp. 81–88, 2020, doi: 10.21831/jamp.v8i1.28997.
- [8] A. Hermawan, F. Elsaudi, and M. Alwi, "Optimasi peningkatan efektivitas pembelajaran pendidikan agama Islam," *J. Syntax Idea*, vol. 5, no. 9, pp. 1877–1892, 2023, doi: 10.46799/syntax-idea.v5i9.3010.
- [9] Warsono and Hariyanto, *Pembelajaran aktif: Teori dan asesmen*. Bandung: PT Remaja Rosdakarya, 2017.
- [10] S. Hardhienata, "The development of scientific identification theory to conduct operation research in education management," *IOP Conf. Ser. Mater. Sci. Eng.*, vol. 166, e012007, 2017, doi: 10.1088/1757-899X/166/1/012007.
- [11] A. Armiyanti, T. Sutrisna, L. Yulianti, N. R. Lova, and E. Komara, "Kepemimpinan transformasional dalam meningkatkan kinerja layanan pendidikan," *J. Educatio FKIP UNMA*, vol. 9, no. 2, pp. 1061–1070, 2023, doi: 10.31949/educatio.v9i2.5104.
- [12] A. Hermawan, E. Susanti, and B. Indrati, "Teacher performance improvement optimization through strengthening interpersonal communication, adversity quotient, and work motivation," *IJEMS: Indones. J. Educ. Math. Sci.*, vol. 4, no. 1, pp. 18–26, 2023, doi: 10.30596/ijems.v4i1.13305.
- [13] S. Setyaningsih, *Manajemen pendidikan melalui analisis jalur path (path analysis) dan metode SITOREM*. Bandung: CV Alfabeta, 2020.
- [14] A. Hermawan, A. F. Ghozali, and M. A. Sayuti, "Optimization for increasing teacher performance through strengthening teamwork, interpersonal communication, diversity intelligence, and work motivation," *Int. J. Sci. Res. Mgmt. (IJSRM)*, vol. 11, no. 10, pp. 5239–5248, 2023, doi: 10.18535/ijerm/v11i10.em06.
- [15] S. Nurlaela, S. S. Hariadi, and A. B. Raya, "The role of young farmers group in new media utilisation for young horticultural agripreneurs in Yogyakarta Special Region Indonesia," *Hum. Soc. Sci. Rev.*, vol. 8, no. 3, pp. 518–526, 2020, doi: 10.18510/hssr.2020.8356.
- [16] Mohd. F. Shamsudin and A. A. Hassim, "Mediating role of organizational innovation on market orientation and business performance: SEM-AMOS approach," *Int. J. Adv. Sci. Technol.*, vol. 29, no. 08, pp. 5654–5659, 2020, Accessed: Jun. 15, 2024. [Online]. Available: <http://serisc.org/journals/index.php/IJAST/article/view/33110>
- [17] H. A. Al Khoza, "Strategi peningkatan kinerja karyawan pada salah satu produsen obat herbal di Magelang," Politeknik Pembangunan Pertanian Yogyakarta Magelang, Yogyakarta, 2024.
- [18] A. Hermawan, B. Indrati, and E. Susanti, "Optimal solutions to improve teachers' organizational citizenship behavior (OCB) by strengthening personality, interpersonal communication and organizational justice," *Indones. J. Educ. Math. Sci.*, vol. 4, no. 3, pp. 159–169, 2023, doi: 10.30596/ijems.v4i3.16840.
- [19] A. Hermawan, S. Setyaningsih, and S. Hardhienata, "Exploratory sequential analysis of servant leadership reviewing from adversity intelligence, proactive personality, teamwork, organizational commitment, and work motivation," *J. Positive Psychol. Wellbeing*, vol. 5, no. 4, pp. 969–986, 2021, Accessed: Aug. 16, 2025. [Online]. Available: <https://journalppw.com/index.php/jppw/article/view/477>
- [20] S. Rusnadi, A. Hermawan, and Sumiati, "Strategi optimal peningkatan kualitas layanan guru sekolah menengah kejuruan (SMK) melalui penguatan knowledge management, komunikasi

- interpersonal, dukungan organisasi dan kepuasan kerja," *J. Syntax Admiration*, vol. 4, no. 11, pp. 2127–2146, 2023, doi: 10.46799/jsa.v4i11.778.
- [21] S. S. Rahmananda, M. Arief, and L. Yulianti, "Pengaruh fasilitas belajar dan motivasi belajar terhadap efektivitas pembelajaran jarak jauh (Studi persepsional pada mahasiswa pendidikan akuntansi UPI)," *J. Fin. Entrep. Acct. Educ. Res.*, vol. 3, no. 11, pp. 67–78, 2024, Accessed: Aug. 16, 2025. [Online]. Available: <https://ejournal.upi.edu/index.php/fineteach/article/view/69714/27217>
- [22] M. D. Puspasari, "Pengelolaan kepemimpinan transformasional dalam pengelolaan madrasah modern," *Refresh: Manaj. Pendidik. Islam*, vol. 1, no. 2, pp. 40–47, 2023, doi: 10.59064/rmpi.v1i2.32.
- [23] D. J. Bantam, M. A. Shiddiq, A. W. Putra, and A. Saputra, "Gambaran gaya kepemimpinan transformasional yang efektif untuk memimpin generasi z," *J. Harmoni Nusa Bangsa*, vol. 1, no. 2, Apr. 2024, doi: 10.47256/jhnb.v1i2.399.
- [24] M. Musdalifah, "Implementasi pembelajaran kooperatif dalam meningkatkan motivasi belajar siswa di madrasah," *Al-Miskawaih: J. Sci. Educ.*, vol. 2, no. 1, pp. 47–66, 2023, doi: 10.56436/mijose.v2i1.221.
- [25] A. Anugrah, "Perkembangan motivasi belajar siswa yang mengalami penurunan kualitas belajar," *J. Islamic Prim. Educ.*, vol. 3, no. 1, pp. 12–25, 2025.
- [26] D. D. Auliyah, S. R. N. Habibah, Rosaliana, and F. Faelasup, "Analisis pengaruh rencana pelaksanaan pembelajaran terhadap kualitas pembelajaran," *J. Ilm. Pendidik. Sos.*, vol. 2, no. 3, pp. 203–216, 2024, doi: 10.71382/sinova.v2i3.150.
- [27] F. Hanaris, "Peran guru dalam meningkatkan motivasi belajar siswa: Strategi dan pendekatan yang efektif," *J. Kajian Pendidik. Psi.*, vol. 1, no. 1, pp. 1–11, 2023, doi: 10.61397/jkpp.v1i1.9.

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