



## The Effect of Educative Interaction Patterns of Religious Teachers on Student Learning Achievement

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### Abstract

**Keywords:**

Educational  
Interaction,  
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Achievement,  
Akidah Akhlak

This study investigates the extent to which educative interaction patterns of Islamic education teachers influence students' academic achievement in the Akidah Akhlak subject among ninth-grade learners at MTs Muhammadiyah 07 Klego Boyolali in the 2024/2025 academic year. Employing a quantitative survey design, data were collected through questionnaires and students' report card documentation. Instrument validity was confirmed through corrected item-total correlation testing, while reliability reached a high level (Cronbach's Alpha = 0.950). Descriptive analysis revealed that educative interaction quality fell within the moderate category ( $M = 64.38$ ), as did student achievement ( $M = 85.7$ ). Assumption tests confirmed normality ( $K-S = 0.757$ ;  $p = 0.615$ ) and a linear relationship between variables ( $p = 0.100$ ). Regression analysis indicated a statistically significant effect of educative interaction patterns on academic achievement ( $t = -1.630$ ;  $p = 0.030$ ), with a coefficient of determination showing 64.3% of variance explained ( $R^2 = 0.643$ ). These findings underscore the essential role of Islamic education teachers in shaping learning

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motivation and moral values, and they imply the need for strengthening interactive, humanistic pedagogical approaches in Islamic secondary schools.

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### Abstrak

**Kata Kunci:** Penelitian ini menyelidiki pengaruh pola interaksi edukatif guru Interaksi Pendidikan Agama Islam terhadap prestasi belajar siswa pada Edukatif, mata pelajaran Akidah Akhlak kelas IX di MTs Muhammadiyah 07 Prestasi Belajar, Klego Boyolali Tahun Pelajaran 2024/2025. Metode yang Akidah Akhlak digunakan adalah survei kuantitatif melalui angket dan dokumentasi nilai rapor. Validitas instrumen diuji melalui korelasi antar-butir, dan reliabilitas menunjukkan kategori sangat tinggi (Cronbach's Alpha = 0,950). Hasil analisis deskriptif menunjukkan bahwa kualitas interaksi edukatif berada pada kategori sedang ( $M = 64,38$ ), demikian pula prestasi belajar siswa ( $M = 85,7$ ). Uji asumsi menunjukkan data berdistribusi normal ( $K-S = 0,757$ ;  $p = 0,615$ ) dan hubungan variabel bersifat linear ( $p = 0,100$ ). Hasil regresi menunjukkan pengaruh signifikan pola interaksi edukatif terhadap prestasi belajar ( $t = -1,630$ ;  $p = 0,030$ ), dengan koefisien determinasi sebesar 64,3% ( $R^2 = 0,643$ ). Temuan ini menegaskan pentingnya penguatan strategi interaksi yang komunikatif, humanis, dan berpusat pada peserta didik dalam pembelajaran pendidikan agama di madrasah.

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## Introduction

Religious education does not merely serve as a channel for transmitting religious knowledge; it also functions as a strategic vehicle for instilling moral values and noble character in learners. The success of religious education is largely determined by the quality of the teaching process, particularly the pattern of educative interaction established between teachers and students. Educative interaction is a reciprocal relationship consciously directed toward achieving educational goals—namely, bringing about positive changes in students' knowledge, attitudes, and behaviors (T. Handayani, 2015; Lestari, 2020; Pane, 2019). Dialogical, open, and supportive interactions have been shown to create a more conducive learning climate, increase motivation, and stimulate active student engagement in the learning process.

From the perspective of Islamic education, educative interaction emphasizes not only cognitive aspects but also affective and spiritual dimensions. Al-Ghazali's thought underscores the central role of the teacher as a model (*uswah hasanah*) who guides learners holistically both through instruction and through exemplary conduct in daily life. This principle aligns with the Qur'anic injunction that presents the Prophet Muhammad (peace be upon him) as the foremost exemplar (Surah al-Ahzab, 33:21). Accordingly, religious teachers are expected to foster interactions that are not merely informative but also inspirational, cultivating an emotional closeness with their students (Kosim et al., 2025; Parnawi & Ridho, 2023; Syauqi, 2022).

Recent studies indicate that the quality of teacher-student interaction significantly influences learning motivation and academic achievement. Positive, supportive relationships between teachers and students contribute to greater student engagement, which in turn enhances academic outcomes (Quin, 2016; Roorda et al., 2011, 2017; Zaff et al., 2017). Meta-analytic evidence also confirms that warm, low-conflict teacher-student relationships play an important role in improving academic performance, particularly in subjects that emphasize the development of attitudes and character (Cornelius-White, 2007). Within religious education, meaningful interaction therefore becomes a crucial foundation for the internalization of religious and moral values.

Nevertheless, field realities reveal that the implementation of effective educative interaction patterns by religious teachers remains suboptimal. Classroom practice is still frequently dominated by one-way lecturing with minimal dialogue, resulting in low student participation and less engaging instruction (Uno, 2014). This situation is exacerbated by the heavy administrative burden placed on teachers, which often reduces the time and attention they can devote to building personal relationships with students. Research shows that administrative pressure negatively affects the quality of teacher-student interaction and diminishes instructional effectiveness (Kurnia, 2024; Skaalvik & Skaalvik, 2018).

The gap between the ideal demands of educational theory and classroom practice directly impacts students' motivation and academic achievement. The subject of Akidah Akhlak which ideally should serve as a central pillar for character and moral formation risks losing its effectiveness if it is not supported by warm, constructive educative interactions (Harahap, 2016). This suggests that the role of the religious teacher cannot be reduced to mere content delivery; teachers must also act as spiritual and moral guides for their students.

A similar phenomenon was observed at Madrasah Tsanawiyah Muhammadiyah 07 Klego Boyolali. Based on observations conducted in the even semester of the 2023/2024 academic year, students' achievement in Akidah Akhlak for Grade IX declined compared to the previous semester. Initial interviews with students indicated limited personal interaction and few opportunities for discussion with their religious teacher, both inside and outside the classroom. At the same time, the religious teacher at this madrasah faces a substantial administrative workload such as preparing accreditation documents and institutional reports so that time for student mentoring is limited. These conditions make MTs Muhammadiyah 07 Klego Boyolali a relevant context in which to examine the influence of teachers' educative interaction patterns on student learning outcomes.

Previous research has demonstrated that communicative and supportive teacher interaction patterns positively contribute to students' religious character and academic achievement (P. D. Handayani, 2020; Meiriza & Samosir, 2024). However, most of these studies were conducted in public schools or institutions with relatively adequate resources. Empirical research specifically examining private madrasahs in peripheral areas especially with respect to the subject of Akidah Akhlak remains limited. Therefore, this study is important to produce more contextually grounded empirical evidence and to enrich the body of literature in Islamic education.

Based on the foregoing discussion, this study aims to analyze the effect of religious teachers' educative interaction patterns on the learning achievement of

Grade IX students in the Akidah Akhlak subject at Madrasah Tsanawiyah Muhammadiyah 07 Klego Boyolali in the 2024/2025 academic year. The research is expected to offer theoretical contributions to the development of Islamic education studies and practical contributions for teachers and madrasah administrators in formulating more humanistic, student-centered teaching strategies.

## Method

This study employs a quantitative methodology within the context of field research. The quantitative approach was chosen because it is suitable for answering research problems that require numerical data and statistical analysis (Sugiyono, 2019). Researchers can get a quantitative and objective image of the relationship between student learning accomplishment and the characteristics of religion teacher educational interaction patterns by using quantitative research. MTs Muhammadiyah 07 Boyolali Klego was the site of the research, which is located in West Wates, Bade, Klego District, Boyolali Regency.

Students in the ninth grade made up the study's population of MTs Muhammadiyah 07 Klego Boyolali, with a total of 64 students. Due to the very small population, all members of the population are used as research samples in this study, which employs census or saturated sampling methodologies (Amin et al., 2023). Thus, all grade IX students were involved as respondents, so the results obtained are expected to be more representative and accurate.

Data collection was conducted using two main techniques. First, data on the pattern of educative interaction of religious teachers was obtained through a questionnaire. The questionnaire was prepared with an interval scale of 1 to 4, which includes indicators such as awareness of educational goals, teacher-student relationships, planned learning activities, changes in behavior and understanding, student participation, and teacher response to learner needs. The preparation of indicators refers to interaction theory which emphasizes the importance of conscious and directed relationships in the educational process to

encourage the development of student maturity. The validity of the instrument was tested using the corrected item-total correlation using SPSS version 21 software, and the Cronbach Alpha coefficient with the criterion value  $> 0.70$  was used to test the instrument's reliability (Sujarweni, 2014; Sujarweni & Utami, 2019).

Second, data on student learning achievement is collected through the documentation method, namely by taking the report card grades of Akidah Akhlak subjects of grade IX students in the 2024/2025 school year. The documentation method is considered appropriate for obtaining learning achievement data that is official, objective, and has been recognized for its validity by the school (Waruwu, 2023).

The data was analyzed using descriptive statistics, such as the mean, median, mode, and standard deviation. Descriptive statistics were used to characterize the data distribution of religious teacher educational interaction patterns and student learning outcomes. Furthermore, the analysis preliminary test was run to ensure that the data met the normality and linearity assumptions. The normality test was performed using Kolmogorov-Smirnov at a significance level of 0.05, and the data was considered normally distributed if the significance value exceeded 0.05 (Sugiyono, 2015). The linearity test determines whether there is a substantial linear relationship between the independent and dependent variables. The data requirements are considered linear if the divergence from linearity has a significance value greater than 0.05.

To evaluate the hypothesis, a partial t-test is used to calculate the statistical significance of the religious teacher's educative interaction pattern variable on student learning achievement. The hypothesis is accepted if the significance value is  $<0.05$ , demonstrating that religious teachers' educational interactions significantly effect student learning results. The coefficient of determination ( $R^2$ ) test measures how well the independent variable explains the variation in the dependent variable. A high  $R^2$  value indicates that religious teachers'

instructional interactions have a considerable impact on student learning results (Sujarweni, 2014; Sujarweni & Utami, 2019).

## Result and Discussion

### Validity Test of Educational Interaction Pattern of Religious Teachers

To test the validity of the instrument, the questionnaire was tested on 25 respondents. The respondents were representatives of MTs Muhammadiyah 02 Karanggede. The basis for taking the validity test uses a significant base value (0.05), if the significant value is greater than the significant base value then the data is considered invalid and if the significant value is less than the significant base value then the data is considered valid.

From the results of the validity test of the question items of the educative interaction pattern of religious teachers, it shows that of the 20 question items, the significant value is smaller than the significant base value (0.05) so that the question instrument of the educative interaction pattern of religious teachers is declared valid and used as this research.

### Reliability Test

In this study, the reliability test was tested using the SPSS program, so the results of the instrument reliability test are shown below:

**Table 1. Reliability Test Results of Educative Interaction Patterns of Religious Teachers**  
**Reliability Statistics**

Cronbach's Alpha	N of Items
0,950	20

From the reliability test results in the table 1 above, it can be seen that the Cronbach's Alpha value for the religious teacher's educative interaction pattern variable is greater than 0.950 from 0.70 so that the research instrument variable can be declared reliable.

## Data on the Level of Educative Interaction Patterns of Religious Teachers (Variable X)

Data on the level of educative interaction patterns of religious teachers is measured by 4 indicators, where each question is given four alternative answers Very Often, Often, Sometimes, and Never. Each question has its own answer score. The scores from questions 1-20 are combined together to give the overall score. The entire score was then processed with the SPSS version 21.0 for Windows application to acquire the minimum, maximum, mean, and mode values by descriptive analysis, as shown in the table 2 below:

**Table 2. Data of Analysis of Educative Interaction Patterns of Religious Teachers**

	N	Minimum	Maximum	Average	Modus	Std. Deviation
Patterns of educative interaction of religious teachers	64	50	78	64.38	66	7.604

In addition to the data obtained in table 2 above, the data is then grouped into three categories, namely low, medium and high using the categorization performance guidelines according to Azwar listed in table 3 as follows:

**Table 3. Guidelines for Categorization Criteria for Patterns of Educative Interaction of Religious Teachers**

Category	Terms
Low	$X < 57$
Medium	$57 \leq X < 72$
High	$X > 72$

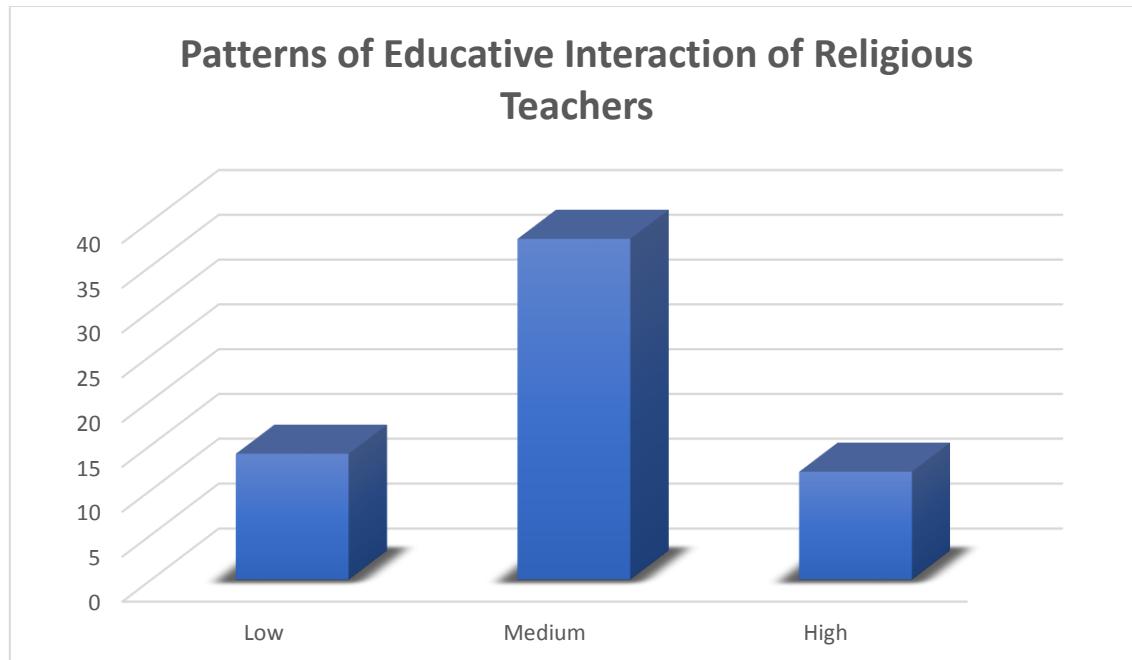
Based on the criteria guidelines for the variable pattern of educative interaction of religious teachers in table 3, it shows that the variable pattern of educative interaction of religious teachers with an average score of 64.38 which can be said that the pattern of educative interaction of religious teachers is in the medium category.

The processing of the categorization of the total score of respondents of the pattern of educative interaction of religious teachers can be seen in the following table 4:

**Table 4. Categorization Results of Total Score Patterns of Educative Interaction of Religious Teachers**

Category	Frequency	Percentage
Low	14	21.9%
Medium	38	59.4%
High	12	18.8%
Total	64	100%

Table 4 If visualized can be seen in Figure 1 as follows:



**Figure 1. Frequency Distribution of Levels of Educative Interaction Patterns of Religious Teachers**

**Data on Student Learning Achievement Level (Variable Y)**

The results of student learning achievement are measured by the final score of the odd semester of the 2024/2025 academic year in the Akidah Akhlak subject, which is then processed with the SPSS application to obtain the minimum, maximum, mean, and mode values through descriptive analysis, as shown in table 5 below:

**Table 5. Data of Student Learning Achievement Analysis**

	N	Minimum	Maximum	Average	Modus	Std. Deviation
<b>Student</b>						
Learning	64	83	90	85.7	84	1.989
<b>Achievement</b>						

In addition to the data obtained in table 5 above, the data is then grouped into three categories, namely low, medium and high using the categorization performance guidelines according to Azwar listed in table 6 as follows:

**Table 6. Guidelines for Student Learning Achievement Categorization**

Criteria	
Category	Terms
Low	$X < 84$
Medium	$84 \leq X < 88$
High	$X > 88$

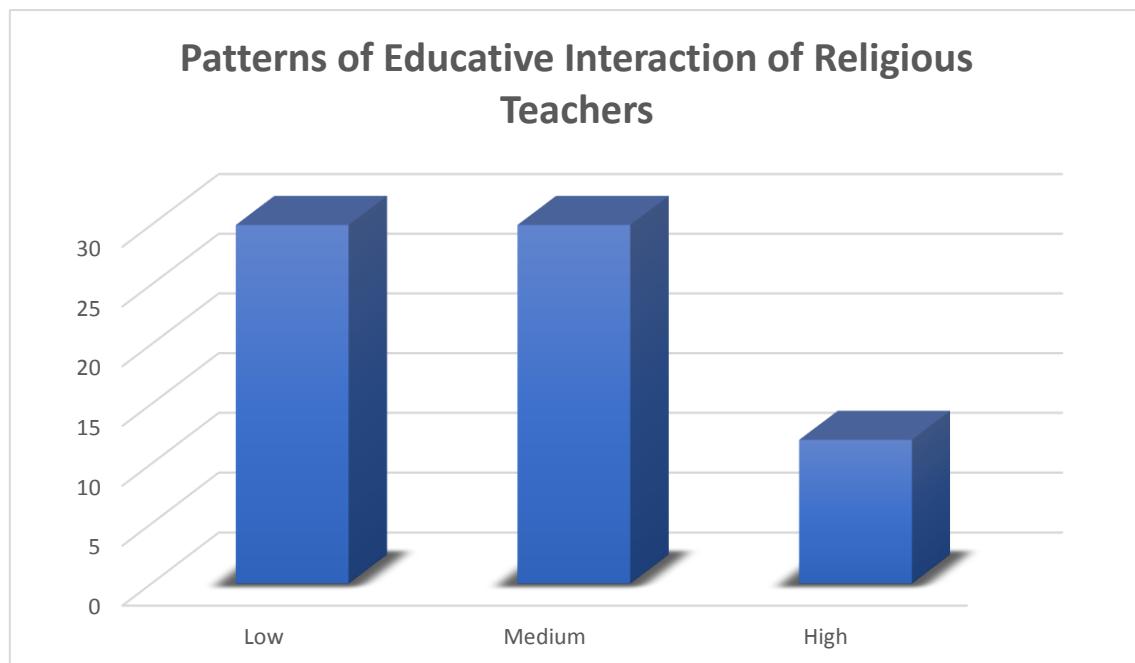
Based on the qualifying parameters for the Student Learning Achievement variable in table 6, the Student Learning Achievement variable has an average score of 85.7, indicating that it falls into the medium group.

The processing of the categorization of the total score of Student Learning Achievement respondents can be seen in the following table 7:

**Table 7. Total Score Category Results of Student Learning Achievement**

Category	Frequency	Percentage
Low	30	46.9%
Medium	30	46.9%
High	4	6.3%
Total	64	100%

Table 7 If visualized can be seen in Figure 2 as follows:



**Figure 2. Frequency Distribution of Student Learning Achievement Level Test Requirements  
Normality Test**

The normality test is required to determine whether the data received from the study findings are normally distributed or not. To assess the normalcy of the researchers, the Kolmogorov-Smirnov formula will be used with a significance level of 0.05. If the data is normally distributed and worth more than 0.05, H0 is approved. If the data is not normally distributed and worth less than

0.05, then  $H_0$  is rejected. The normalcy test results are presented in the table 8 below:

**Table 8. Normality Test Results**

**One-Sample Kolmogorov-Smirnov Test**

		Unstandardized Residual
N		64
Normal	Mean	,0000000
Parameters <sup>a,b</sup>	Std. Deviation	7,43861607
Most	Absolute	,095
Extreme	Positive	,062
Differences	Negative	-,095
Kolmogorov-Smirnov Z		,757
Asymp. Sig. (2-tailed)		,615

a. Test distribution is Normal.

b. Calculated from data.

Based on the results of the normality test, it is known that the significance value is  $0.615 > 0.05$ , implying that the residual value is regularly distributed.

**Linearity Test**

The linearity test determines whether there is a linear relationship between the independent and dependent variables. The linearity test with the condition that the chance of sig deviation from linearity is greater than 0.05, indicating that the data has a linear connection. The table 9 shows the following linearity test results:

**Table 9. Linearity Test Results****ANOVA<sup>a</sup>**

Model	Sum of Squares	df	Mean Square	F	Sig.
1 Regression	157,020	1	157,020	2,793	,100 <sup>b</sup>
Residual	3485,980	62	56,225		
Total	3643,000	63			

a. Dependent Variable: Pola\_Edukatif\_Guru

b. Predictors: (Constant), Prestasi\_Siswa

The linearity test findings yielded a value of 0.100. So, since 0.100 is more than 0.05, it is possible to conclude that the independent variable and the dependent variable have a linear relationship.

### Hypothesis Testing

#### Partial Test (t Test)

The t test aims to determine the magnitude of the influence of the independent variable on the dependent variable.

**Table 10. T-test results****Coefficients<sup>a</sup>**

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
1 (Constant)	132,383	40,707		3,252	,002
Prestasi_Siswa	-,730	,440	-,210	-1,630	,030

a. Dependent Variable: Pola\_Edukatif\_Guru

Based on table 10 above, it is clear that the study's premise is that the educative contact pattern of religious teachers has an impact on student learning achievement. The test findings indicate a significant value of  $0.030 < 0.05$ . As a result, the hypothesis that the pattern of educative interaction of religious teachers has a significant effect on student learning achievement in Akidah Akhlak subject for grade IX students at Madrasah Tsanawiyah Muhammadiyah 07 Klego Boyolali in the 2024/2025 academic year can be rejected.

**Test Coefficient of Determination (R Square)**

The coefficient of determination ( $R^2$ ) test is used to measure how much the independent variable, namely the pattern of educative interaction of religious teachers ( $X$ ), influences the dependent variable, student learning accomplishment ( $Y$ ). To calculate the coefficient of determination, use the formula:  $KD = R^2 \times 100\%$ .

Where:

$KD$  = Coefficient of Determination

$R^2$  = Square of Correlation Coefficient

**Table 11. Determination Coefficient Test Results**

**Model Summary<sup>b</sup>**

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	,208 <sup>a</sup>	,643	,528	7,984

a. Predictors: (Constant), Prestasi\_Siswa

b. Dependent Variable: Pola\_Edukatif\_Guru

From the data table 11 of the results of the data processing above, it can be explained that it is known that the result of the  $R^2$  value is 0.643 if calculated by the determination formula, the result obtained is  $0.643 \times 100\% = 64.3\%$ . From the results of this determination calculation, it can be concluded that

the R Squere value is 64.3%, then the variable of the educative interaction pattern of religious teachers (X) on the student learning achievement variable (Y) is 64.3% and the remaining other variables that are not studied are 35.7%.

## Discussion

The results of this study indicate that the pattern of educative interaction among religious teachers at MTs Muhammadiyah 07 Klego Boyolali in the 2024/2025 academic year is categorized as moderate ( $M = 64.38$ ), while students' learning achievement in the Akidah Akhlak subject is also at a moderate level ( $M = 85.7$ ). These findings confirm that teacher-student interaction plays a substantial role in shaping students' academic outcomes, particularly in value-oriented subjects. This is consistent with previous studies demonstrating that positive and supportive teacher-student relationships significantly enhance student engagement and achievement (Cornelius-White, 2007; Roorda et al., 2011). The coefficient of determination ( $R^2 = 64.3\%$ ) further indicates that educative interaction patterns explain a large proportion of the variance in students' learning achievement, although a meaningful proportion remains influenced by other contextual factors.

A critical reflection is needed to explain why moderate levels of interaction tend to result in moderate levels of achievement. One plausible explanation lies in the qualitative dimension of interaction. Although teachers have attempted to establish communication and guidance, the interaction appears to be largely instructional rather than dialogic. Research on classroom dialogue emphasizes that learning outcomes improve significantly when interactions enable students to articulate ideas, engage in exploratory talk, and construct understanding collaboratively (Howe et al., 2019; Mercer & Howe, 2012). Therefore, interaction that is present but lacks depth, personalization, and dialogic quality may not sufficiently stimulate higher levels of cognitive and affective engagement.

Cultural and institutional factors also contribute to this condition. In many educational contexts, including madrasah education, hierarchical teacher-

centered traditions remain strong, potentially limiting students' willingness to actively participate in classroom dialogue. Furthermore, institutional demands such as administrative workloads reduce teachers' opportunities to provide individualized feedback and sustained mentoring. Previous research has shown that excessive administrative responsibilities negatively affect teacher motivation and instructional quality (Skaalvik & Skaalvik, 2018). These constraints may partially explain why interaction patterns have not yet translated into higher academic achievement.

International research further supports these findings. Hattie (2023) highlights that instructional factors with the greatest impact on learning include effective feedback, teacher clarity, and teacher credibility-elements that depend heavily on high-quality interaction. Similarly, dialogic teaching studies stress that structured and purposeful dialogue is essential for transforming classroom interaction into meaningful learning experiences (Hennessy et al., 2020; Mercer & Howe, 2012). Without these elements, interaction remains superficial and less impactful on achievement.

The significant influence of educative interaction patterns on learning achievement is also aligned with motivational and psychological learning theories. Self-Determination Theory emphasizes that students' intrinsic motivation develops when learning environments support autonomy, competence, and relatedness (Ryan & Deci, 2020). In addition, behaviorist and humanistic perspectives underline the importance of reinforcement, empathy, and emotional closeness in promoting positive learning behaviors (Lutfi et al., 2025; Setiadi & Setiyani, 2018). Teachers who combine academic guidance with emotional support and moral exemplification are more likely to foster both academic success and character development.

In practical terms, these findings suggest the need for strengthening teachers' dialogic competencies through targeted professional development programs. Training focused on questioning strategies, formative feedback, and dialogic classroom practices may help transform moderate interaction into high-

quality engagement. At the institutional level, reducing administrative burdens or providing dedicated time for mentoring and reflection could enhance the effectiveness of teacher-student interactions. Future research is encouraged to employ qualitative or mixed-method approaches, such as classroom observations and discourse analysis, to capture the depth of interaction and explore additional factors influencing student achievement.

Overall, this study confirms that educative interaction patterns of religious teachers play a strategic role in improving students' learning achievement in Akidah Akhlak. However, maximizing this impact requires not only increasing the frequency of interaction but also enhancing its quality through dialogic, reflective, and student-centered pedagogical practices.

## Conclusion

This study demonstrates a significant and substantive relationship between teachers' educative interaction patterns and students' achievement in Akidah Akhlak at MTs Muhammadiyah 07 Klego Boyolali. Quantitatively, the interaction pattern mean was 64.38, student achievement mean was 85.7, and educative interaction explained 64.3% of the variance in achievement ( $R^2 = 0.643$ ), with a statistically significant effect ( $t$  test,  $p = 0.030$ ). These findings indicate that improving the quality of teacher-student interaction can substantially enhance learning outcomes in value-oriented religious subjects.

Practical implications: (1) Teachers should prioritize dialogic and formative practices—providing specific feedback, promoting exploratory talk, and encouraging student explanations; (2) School leaders and policymakers should consider reducing excessive administrative burdens and allocating structured time for mentoring and teacher professional development; (3) Implementing structured peer-dialogue and formative-assessment strategies can increase student engagement without large resource investments.

Recommendations for teachers: (1) Prioritize classroom practices that enhance the quality of dialogue—employ exploratory talk, pose higher-order

questions, and create regular opportunities for students to articulate their ideas in a structured, coherent manner; (2) Provide targeted formative feedback paired with explicit follow-up actions (for example, concrete corrective steps or revision plans) so that teacher-student interactions consistently promote both cognitive development and affective growth; (3) Use low-cost, high-impact strategies to boost student engagement, such as paired discussions, peer explanation, and structured peer assessment, which foster active participation without requiring extensive resources.

Recommendations for policymakers and headmasters: (1) Reduce teachers' administrative load or designate scheduled work time specifically for mentoring and student guidance, ensuring teachers have sufficient time to engage in high-quality pedagogical interaction; (2) Offer sustained professional development programs that teach dialogic instructional skills, effective formative-feedback techniques, and alternative assessment methods that support character education and holistic learning; (3) Facilitate evidence-based monitoring and support such as classroom observation combined with coaching to ensure that professional learning transfers into classroom practice and to measure its impact on student achievement.

Recommendations for future research: (1) Conduct classroom discourse analyses and intervention studies to examine causal mechanisms of dialogic teaching; (2) Include contextual variables such as family background and school resources to explain residual variance; (3) Evaluate professional development programs aimed at enhancing dialogic interaction in madrasah settings.

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