



The Effect of the Quiz Team Learning Model on Student Learning Activity and Interest in Islamic Education

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Abstract

This study examines the effect of the Quiz Team learning model on student learning activity and interest in Islamic Education at the elementary school level. The study employed a quantitative approach using a quasi-experimental method with a Non-Equivalent Control Group Design. The participants were 30 fourth-grade students, consisting of 15 students in the experimental class and 15 students in the control class. Data were collected using a learning activity observation sheet and a learning interest questionnaire. Data analysis was conducted using the Independent Samples t-Test with SPSS 20. The results showed that the Sig. (2-tailed) value was 0.000 ($p < 0.05$) for both learning activity and learning interest, indicating a statistically significant difference between the experimental and control classes. The experimental class showed higher mean scores for both learning activity and learning interest than the control class. These findings suggest that the Quiz Team learning model can support greater student participation and interest in Islamic Education learning through teamwork, positive competition, and active classroom interaction.

INTRODUCTION

The world of education in the twenty-first century faces increasingly complex challenges, particularly in responding to changing student learning characteristics. Students increasingly expect learning environments that provide interaction, visual stimulation, and opportunities for direct participation (Ma'rof & Abdullah, 2025). However, conventional lecture-based instruction remains common in Islamic Education at the elementary school level. Such instruction may position students primarily as recipients of information rather than active participants in the learning process (Pohan & Khairuddin, 2025). This condition is inconsistent with the orientation of contemporary education, including the *Merdeka Belajar* curriculum, which emphasizes active student participation and more student-centered learning.

Previous studies have shown that student-centered learning can strengthen student engagement. Matsuri et al (2026) demonstrated that active learning spaces positively influence student engagement, while Holec & Marynowski (2020) found that learning environments designed to facilitate active interaction resulted in higher engagement than conventional learning environments. Interactive and game-based approaches have also received increasing attention. Ardita et al (2024) demonstrated

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that the use of Quizizz-assisted learning media positively influenced elementary school students' learning interest. Similarly, Hentasmaka & Utami (2024) found that combining the Quiz Team learning model with Kahoot! technology increased student learning interest. These findings suggest that learning activities involving interaction, collaboration, and enjoyable experiences can provide greater opportunities for student participation and interest.

The importance of student activity and learning interest is also supported by empirical evidence. Purnamawanti & Novitasari (2023) found that the initial level of student activity reached only 28% before the implementation of an active learning model. Ludwig (2021) reported that the proportion of active students increased to 80.92% after the implementation of the Quiz Team learning model. Meanwhile, Wiradarma et al (2021) identified a significant relationship between learning interest and learning outcomes among elementary school students, indicating that learning interest is an important factor in supporting learning achievement. Pandey et al (2025), from a constructivist perspective, emphasized that meaningful learning requires students to be directly involved in learning activities and interested in the material being studied. Chasanah et al (2023) further reported that students with high learning interest tended to be more active in asking questions and expressing opinions than students with lower learning interest.

Preliminary observations conducted by the researcher in May 2026 revealed that the Islamic Education learning process in the research setting was relatively monotonous. Learning activities were dominated by teacher explanations, with limited opportunities for students to participate actively in discussions, questions, or collaborative activities. An interview with the Islamic Education teacher indicated that only four to five of the fifteen students appeared to show strong interest in the lesson, while several students were engaged in side conversations, appeared inattentive, or fell asleep during the learning process. Interviews with fourth-grade students also indicated that some students perceived Islamic Education lessons as less enjoyable because classroom activities provided limited opportunities for active participation. This condition indicates the need for a learning model that can create a more interactive and engaging classroom environment. (Boylan et al., 2018) argues that effective learning is characterized by active interaction between teachers and students within a conducive learning environment.

One learning model that may address these conditions is the Quiz Team learning model, developed by (Helmi, 2016). The model is a form of cooperative learning that encourages students to work in teams, prepare learning materials, formulate questions, and test one another's understanding (Martinez & Gomez, 2025). Firmansyah et al (2024) explains that Quiz Team can create an enjoyable learning environment by combining learning activities with interaction and collaboration. The model also incorporates positive competition, which may encourage students to participate more actively in learning activities. Such characteristics are considered relevant to elementary school students, who generally respond positively to interactive, collaborative, and competitive learning experiences (Wardani et al., 2023). Through these activities, students have opportunities to practice expressing opinions, cooperating with peers, and responding to questions. The use of cooperative learning models is also consistent with the broader emphasis on developing active participation and twenty-first-century skills (Supratman et al., 2025; Zulfiati et al., 2025).

Several previous studies have examined the use of the Quiz Team learning model in elementary education. Intaniasari et al (2023) reported improvements in elementary school students' learning outcomes following the implementation of Quiz Team. Eliana & Wati (2024) demonstrated a positive effect of Quiz Team on Higher-Order Thinking Skills in social studies learning. Purnamawanti & Novitasari (2023)

also reported an increase in student engagement from 28% to 80%, accompanied by an increase in average learning outcomes from 69% to 95%. Other cooperative learning models, including Talking Stick and Student Teams Achievement Divisions, have also demonstrated positive outcomes at the elementary school level (Irwan et al., 2026; Rahim et al., 2026). (Finanti et al., 2026) further confirmed that cooperative learning strategies can increase student participation.

Despite these findings, an important gap remains. Previous studies have predominantly examined Quiz Team in relation to learning outcomes, specific cognitive skills, or general student engagement. Fewer studies have simultaneously examined learning activity and learning interest as outcomes of Quiz Team implementation, particularly within Islamic Education at the elementary school level. This gap is important because Islamic Education involves not only the acquisition of knowledge but also active participation in understanding and responding to value-laden learning materials. Edu et al (2021) also indicate the importance of examining learning processes and student responses within their specific educational contexts. Therefore, further quantitative investigation is needed to examine whether the Quiz Team learning model is associated with differences in both student learning activity and learning interest in Islamic Education.

This study aims to address this gap by examining the effect of the Quiz Team learning model on two related student outcomes, namely learning activity and learning interest, within Islamic Education at the elementary school level. The novelty of the study lies in the simultaneous examination of these two outcomes within a quasi-experimental design, allowing the findings to provide empirical evidence regarding the potential contribution of Quiz Team to both behavioral participation and students' affective engagement in Islamic Education. The study is also expected to contribute practical evidence for teachers seeking to develop more interactive, collaborative, and engaging approaches to Islamic Education learning. The Research Team reported that the implementation of a cooperative learning model increased student activity from 50% to 93%, providing further support for examining cooperative approaches across different educational levels and learning contexts.

Previous studies have also reported positive effects of learning innovations on student motivation and interest. Jumati (2023) found an improvement in learning motivation following the implementation of Quiz Team, while Amalia (2022); Nur'aini (2026) reported positive effects of learning innovations on elementary school students' learning interest. However, these findings do not specifically establish whether the Quiz Team learning model can simultaneously contribute to student learning activity and learning interest in Islamic Education. Therefore, this study focuses on examining the effect of the Quiz Team learning model on student learning activity and interest in Islamic Education.

METHODS

This study employed a quantitative approach using a quasi-experimental method to examine the effect of the Quiz Team learning model on students' learning activity and learning interest in Islamic Education (Engkizar et al., 2026; Holec & Marynowski, 2020; Rahman et al., 2020; Takona, 2024). The research used a Non-Equivalent Control Group Design involving two fourth-grade classes. One class was assigned as the experimental group and received instruction using the Quiz Team learning model, while the other class served as the control group and received conventional instruction. The total number of participants was 30 students, consisting of 15 students in the experimental group and 15 students in the control group.

The research instruments consisted of a learning activity observation sheet and a learning interest questionnaire. The learning activity observation sheet measured students' participation during the learning process, including their courage to ask and answer questions, participation in group discussions, involvement in preparing quiz questions, and participation in intergroup activities. Learning interest was measured using a questionnaire based on indicators of students' interest in the subject, enjoyment of learning activities, willingness to participate actively, and attention to the learning material (Engkizar et al., 2025; Rumaisa et al., 2025). Both instruments had been validated before being used for data collection.

Data were collected after the implementation of the learning treatment. The experimental group received Islamic Education instruction using the Quiz Team learning model, while the control group received conventional instruction through lectures and questions and answers. Learning activity data were obtained through observation during the learning process, while learning interest data were obtained through the questionnaire administered to students after the learning activities. The data were analyzed using the Independent Samples t-Test with SPSS 20 to determine whether there were statistically significant differences in learning activity and learning interest between the experimental and control groups. The decision criterion was based on the Sig. (2-tailed) value, with a value of less than or equal to 0.05 indicating a statistically significant difference between the two groups (Almquist et al., 2019; Chapman, 2018; Engkizar et al., 2023; Mustafy & Rahman, 2024).

RESULT AND DISCUSSION

The research subjects were fourth-grade students divided into two groups: class IV.A as the experimental class ($n = 15$), which received treatment using the Quiz Team learning model, and class IV.B as the control class ($n = 15$), which used a conventional learning model in the form of lectures and questions and answers. The data collection instruments consisted of a learning activity observation sheet and a learning interest questionnaire, both of which had been validated previously.

Student learning activity was measured using an observation sheet with indicators including courage to ask questions, ability to answer questions, participation in group discussions, involvement in compiling quiz questions, and sincerity in participating in intergroup competitions. The following table presents a comparison of student learning activity in the two classes:

Table 1. Comparison of Learning Activity Data for Experimental and Control Classes

Descriptive Statistics	Experimental Class (Quiz Team)	Control Class (Conventional)
The highest score	92	74
Lowest Value	68	42
Average (Mean)	81.47	59.13
Standard Deviation	6.82	8.54
Category	Active	Moderately Active

Based on Table 1, the average learning activity of the experimental class was 81.47, compared with 59.13 in the control class. The mean difference between the two classes was 22.34 points. The experimental class was categorized as active, whereas the control class was categorized as moderately active. These descriptive findings indicate that students who participated in Quiz Team learning demonstrated higher learning activity than those who participated in conventional learning.

Meanwhile, student learning interest was measured using a questionnaire with a Likert scale (1–5) that included four main indicators: interest in Islamic Education learning, enjoyment during learning, desire to be actively involved, and student

attention to the material. Data on learning interest in both classes are presented in the following table:

Table 2. Comparison of Learning Interest Data for Experimental and Control Classes

Descriptive Statistics	Experimental Class (Quiz Team)	Control Class (Conventional)
The highest score	94	76
Lowest Value	65	44
Average (Mean)	79.53	57.80
Standard Deviation	7.41	9.12
Category	High	Moderate

The average learning interest in the experimental class was 79.53, which was categorized as high, while the average in the control class was 57.80, which was categorized as moderate. The mean difference between the two classes was 21.73 points. These descriptive findings indicate that students in the Quiz Team class had higher learning interest than students in the conventional class.

Next, a hypothesis test was conducted to examine the effect of the Quiz Team learning model (X) on student learning activity and learning interest (Y) among fourth-grade students at Muhammadiyah Elementary School. The data were analyzed using the Independent Samples T-Test. The decision-making criteria were as follows: if the Sig. (2-tailed) value ≤ 0.05 , H_a is accepted and H_0 is rejected, indicating a statistically significant difference between the groups. Conversely, if the Sig. (2-tailed) value ≥ 0.05 , H_0 is accepted and H_a is rejected, indicating that the difference between the groups is not statistically significant. The results of the hypothesis test are presented below:

Table 3. Results of the Independent Samples T-Test

		Levene's Test for Equality of Variances		t-test for Equality of Means					
		F	Sig.	t	df	Sig. (2- tailed)	Mean Difference	Std. Error Difference	95% CI Lower
Learning Active Participation	Equal variances assumed	1.247	.271	8.743	28	.000	22.333	2.554	17.104
	Equal variances not assumed			8.743	26.471	.000	22.333	2.554	17.081
Learning Interest	Equal variances assumed	1.083	.304	8.091	28	.000	21.733	2.686	16.232
	Equal variances not assumed			8.091	25.842	.000	21.733	2.686	16.193

The results in Table 3 show that the Sig. (2-tailed) value for both learning activity and learning interest was 0.000, which was lower than 0.05. Therefore, H_0 was rejected and H_a was accepted. The t-value was 8.473 for learning activity and 8.091 for learning interest. These results indicate a statistically significant difference between the experimental and control classes in terms of student learning activity and learning interest. Thus, the use of the Quiz Team learning model was associated with higher student learning activity and learning interest in Islamic Education at Muhammadiyah Elementary School.

During the learning process, students in class IV.A who participated in the Quiz Team learning model appeared enthusiastic and actively involved in learning

activities. The classroom atmosphere also appeared more interactive and enjoyable. This observation is consistent with the questionnaire and observation results processed using SPSS 20. The Independent Samples T-Test further showed a Sig. (2-tailed) value of $0.000 \leq 0.05$, indicating a statistically significant difference between the experimental and control classes. These findings suggest that the Quiz Team learning model contributed to differences in student learning activity and learning interest in Islamic Education.

The results of this study indicate that Islamic Education learning using the Quiz Team model was associated with higher student learning activity and interest. The Quiz Team learning model is an active learning model designed to enliven the learning atmosphere and encourage students to take responsibility for their learning through enjoyable activities. This finding is consistent with the characteristics of the Quiz Team model, which encourages the active involvement of team members in formulating questions, discussing learning materials, and testing one another's understanding (Firmansyah et al., 2024; Martinez & Gomez, 2025).

Theoretically, the higher level of learning activity observed in the Quiz Team class can be explained through Vygotsky's constructivist learning theory, which emphasizes the role of social interaction in knowledge construction. When students work in teams to develop questions and respond to challenges from other groups, they engage in processes of discussion, negotiation of meaning, and collaborative problem-solving. These activities provide opportunities for students to participate actively in the learning process. (Supratman et al., 2025) emphasized that cooperative and collaborative approaches can support the development of social skills and student activity at the elementary school level. In the context of elementary education, the competitive and collaborative characteristics of Quiz Team may also be compatible with students' tendency to respond positively to interactive and game-like learning activities (Wardani et al., 2023).

Furthermore, the higher learning interest observed in the Quiz Team class is consistent with Pandey et al (2025) view that learning interest can develop when students perceive learning activities as enjoyable, meaningful, and provide opportunities for active participation. Wiradarma et al (2021) also emphasized the importance of learning interest as a factor associated with student learning outcomes, as students with higher interest tend to demonstrate greater engagement in learning activities.

The increase in learning interest through Quiz Team also has particular relevance to Islamic Education. Islamic Education is not limited to the acquisition of cognitive knowledge but also provides opportunities for students to understand and internalize Islamic values. An enjoyable and participatory learning environment may provide greater opportunities for students to engage with Islamic Education materials meaningfully. Fahmi & Layyinnati (2025) emphasized the need for religious learning approaches that are relevant to the characteristics of the digital generation. In this regard, Quiz Team provides an interactive learning structure that combines collaboration, competition, and active participation in the Islamic Education learning process.

Overall, this study indicates that the Quiz Team learning model can be considered an alternative learning model for Islamic Education teachers who seek to increase student learning activity and interest simultaneously. The findings are also in line with Holec & Marynowski (2020); Zulfiati et al (2025), who emphasize the importance of active interaction and cooperative approaches in contemporary education. However, the findings of the present study should be interpreted within the context of the fourth-grade students and the sample size used in this study.

CONCLUSION

This study found that the Quiz Team learning model had a statistically significant effect on both student learning activity and learning interest in Islamic Education. The Independent Samples t-Test showed a significance value of 0.000 ($p < 0.05$) for both variables. Students in the experimental class demonstrated higher mean scores in learning activity (81.47) and learning interest (79.53) than those in the control class, with mean scores of 59.13 and 57.80, respectively. These findings indicate that the Quiz Team learning model can provide greater opportunities for student participation, interaction, and engagement during Islamic Education learning. Therefore, Quiz Team can be considered an alternative cooperative learning model for supporting student learning activity and interest at the elementary school level.

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