



Evaluating the Effectiveness of the Jigsaw Learning Model in Improving Elementary School Students' Learning Achievement

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Abstract

This study was motivated by the low learning achievement of fourth-grade students in Islamic Religious Education at SD Sabbihisma 04 Padang. Preliminary data showed that only 9 out of 24 students, or 37.5%, achieved the minimum mastery criterion of 75. This condition was influenced by the dominance of conventional teaching methods, such as lecturing, question-and-answer activities, and note-taking assignments, which made students less active, easily bored, and less engaged in the learning process. The purpose of this study was to examine the effectiveness of the Jigsaw cooperative learning model in improving students' learning achievement in Islamic Religious Education. This research employed Classroom Action Research conducted in two cycles, consisting of planning, implementation, observation, and reflection stages. Data were collected through observation, tests, interviews, and documentation, then analyzed using qualitative and quantitative approaches. The findings revealed a significant improvement in students' learning mastery, from 37.5% in the preliminary stage to 83.3% in Cycle I and 95.9% in Cycle II. These results indicate that the Jigsaw model can enhance students' activeness, cooperation, responsibility, and understanding. The implication is that the Jigsaw model can be used as an effective, active, and collaborative learning strategy for Islamic Religious Education in elementary schools.

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INTRODUCTION

Islamic Religious Education in elementary schools plays a strategic role in establishing students' foundational religious knowledge, spiritual attitudes, moral character, and social behavior from an early age. Education is not merely understood as a process of knowledge transmission; rather, it is a conscious and systematic effort to develop learners' potential so that they possess intellectual competence, strong character, practical skills, and spiritual strength. From an Islamic perspective, knowledge occupies a highly esteemed position, as emphasized in the Word of Allah SWT in Surah Al-Mujādalah (58:11):

يَرْفَعُ اللَّهُ الَّذِينَ آمَنُوا مِنْكُمْ وَالَّذِينَ أُوتُوا الْعِلْمَ دَرَجَاتٍ وَاللَّهُ بِمَا تَعْمَلُونَ خَبِيرٌ

The verse means: “Allah will raise those who have believed among you and those who have been given knowledge by degrees. And Allah is All-Aware of what you do” (Qur'an, Al-Mujādalah [58]: 11).

This verse demonstrates that education and knowledge occupy a central position in shaping individuals who are faithful, knowledgeable, and morally upright. This principle is consistent with Law Number 20 of 2003 concerning the National Education System of Indonesia, which states that education aims to develop learners' potential so that they become individuals who are faithful and devoted to God, possess noble character, are intelligent, creative, independent, and responsible citizens (Government of the Republic of Indonesia, 2003). Therefore, Islamic Religious Education (IRE) learning in elementary schools should be designed to be active and meaningful, enabling students not only to understand the subject matter cognitively but also to internalize Islamic values in their daily lives. This view is further supported by educational literature, which emphasizes that education functions to guide, shape, direct, and empower learners so that they develop personalities, skills, and life competencies that are beneficial to society.

Given this urgency, the success of Islamic Religious Education largely depends on teachers' ability to select instructional models that align with students' characteristics and learning objectives. IRE instruction that relies solely on teacher-centered lecturing tends to make students passive, limits their engagement in higher-order thinking processes, and provides little opportunity for discussion or expression of understanding. In contrast, twenty-first-century learning requires students to develop critical thinking, creativity, communication, and collaboration skills to effectively respond to social changes and advances in knowledge. In this context, teachers serve not merely as transmitters of information but also as facilitators who create active, interactive, and enjoyable learning environments. Cooperative learning theory suggests that learning becomes more effective when students work together, assume individual responsibility, engage in positive interactions, and support one another in achieving shared learning goals (Johnson & Johnson, 2009; Slavin, 2014). Consequently, the issue of low student participation in Islamic Religious Education classes should be addressed through instructional models capable of transforming learning from passive to active, from individualistic to collaborative, and from rote memorization to deeper understanding.

In response to this need, the Jigsaw cooperative learning model has emerged as a relevant alternative for improving elementary school students' achievement in Islamic Religious Education. The Jigsaw model positions students as active

participants in the learning process through the formation of home groups and expert groups. Each student is assigned responsibility for mastering a specific portion of the learning material, discussing it with peers in the expert group, and subsequently teaching it to members of the home group. This structure promotes greater participation, as students not only receive information from the teacher but also learn to express ideas, listen to others' perspectives, build teamwork, and develop a sense of responsibility for the success of the group. Within the context of Islamic Religious Education, the Jigsaw model has the potential to facilitate deeper understanding of religious content, as Islamic values can be explored through discussion, interaction, and collaborative learning experiences. Furthermore, findings from a systematic review indicate that the Jigsaw method is widely employed as a cooperative learning strategy to enhance academic achievement, student engagement, and social interaction in classroom settings, although its effectiveness may vary depending on the subject area, educational level, and characteristics of learners (Drouet et al., 2023).

The need for active, collaborative, and meaningful Islamic Religious Education (IRE) learning becomes increasingly relevant when linked to the preliminary findings in Grade IV at Sabbihisma 04 Elementary School, Padang. Based on an initial observation conducted on July 28, 2025, together with Ustadz Zalmi Putra, S.Pd., the Islamic Religious Education teacher, the learning process was still predominantly characterized by lectures, question-and-answer sessions, and note-taking activities. This instructional pattern indicates that the learning process has not yet fully provided opportunities for students to engage in discussion, collaboration, idea-sharing, and the construction of understanding through social interaction. This condition is consistent with a common issue in conventional teaching approaches, namely the low level of student engagement when instruction is excessively teacher-centered. In contrast, cooperative learning emphasizes the importance of group interaction, individual accountability, and active participation, enabling students to support one another in understanding learning materials (Slavin, 2014). Within the context of Islamic Religious Education, the Jigsaw model is particularly relevant because it shifts the center of learning from the teacher to the students through the use of home groups and expert groups. As a result, learning focuses not only on content mastery but also on the development of communication skills, responsibility, and collaboration. Preliminary findings further suggest that education is intended to guide, shape, and empower learners so that they develop strong character and life skills that are beneficial to society. Therefore, the existing learning conditions in Grade IV at Sabbihisma 04 Elementary School, Padang, provide a strong rationale for examining the effectiveness of the Jigsaw model as an alternative strategy for improving Islamic Religious Education instruction.

The preliminary findings also revealed that students' academic achievement remained relatively low. Of the 24 Grade IV students, only 9 students (37.5%) achieved the Minimum Mastery Criterion (MMC) score of 75, while 15 students (62.5%) failed to reach the required standard. The average pretest score was only 66.92, with scores ranging from 40 to 85. These data indicate that the primary issue lies not only in the low achievement of a considerable proportion of students but also in the failure to attain satisfactory classical mastery. This situation highlights the need for a more structured instructional intervention involving careful planning, implementation, evaluation, and identification of challenges associated with the

application of the Jigsaw model in Islamic Religious Education. Previous studies have shown that the implementation of the Jigsaw method in Islamic Religious Education can improve learning outcomes and student participation because it provides opportunities for students to teach one another, engage in discussions, and assume responsibility for specific learning content (Siska et al., 2022; Az-zuhri et al., 2025). International studies likewise emphasize that the effectiveness of the Jigsaw method is strongly influenced by classroom context, student characteristics, teacher readiness, and the complexity of the instructional material (Drouet et al., 2023). Therefore, focusing on Grade IV students at Sabbihisma 04 Elementary School, Padang, is particularly important, as the preliminary data demonstrate a genuine need to improve Islamic Religious Education achievement through a learning model that is more active, collaborative, and aligned with the developmental characteristics of elementary school students.

Research on the Jigsaw model has generally demonstrated that cooperative learning can enhance academic achievement through group work, individual accountability, and peer interaction. Slavin (2014) argues that the success of cooperative learning largely depends on group goals and individual accountability, while Gillies (2016) highlights the critical role of teachers in facilitating interaction, critical thinking, and student participation within learning groups. However, the meta-analysis conducted by Cochon Drouet et al. (2023) indicates that the effectiveness of the Jigsaw method is highly dependent on contextual factors, learner characteristics, material complexity, implementation duration, and teacher preparedness. Consequently, its effectiveness cannot be generalized across all subjects and educational levels. In the Indonesian context, Az-zuhri et al. (2025) found that the Jigsaw model effectively increased students' active participation in Islamic Religious Education classes. In contrast, Siska et al. (2022) reported that the implementation of the Jigsaw model in elementary school Islamic Religious Education had not been fully optimized because teachers did not consistently apply the model's procedures correctly. These findings reveal a research gap: most previous studies have focused on the general effectiveness of the Jigsaw model, student participation, or its implementation in different educational settings, but few have specifically examined its effectiveness in improving the Islamic Religious Education achievement of Grade IV students at Sabbihisma 04 Elementary School, Padang. This setting presents unique empirical challenges, including the dominance of lecture-based instruction, low student attention, a less conducive classroom atmosphere, and an initial mastery level of only 37.5%. Accordingly, the present study contributes by providing a contextual examination of the Jigsaw model as a strategy for improving Islamic Religious Education instruction, particularly by investigating how planning, implementation, evaluation, and implementation challenges contribute to enhancing elementary students' academic achievement.

The objective of this study is to examine comprehensively the implementation of the Jigsaw cooperative learning model in Islamic Religious Education, including aspects of planning, implementation, evaluation, and the challenges encountered throughout the learning process. This study is expected to contribute both theoretically and practically to the development of Islamic Religious Education in elementary schools. Theoretically, it may enrich scholarly discussions and educational literature concerning the use of the Jigsaw cooperative learning model as a strategy for enhancing student engagement, creativity, and academic achievement. Practically, the study may benefit researchers by providing experience

in implementing innovative instructional models; students by enhancing their motivation, participation, creativity, and understanding of Islamic Religious Education materials; and teachers by offering a reference for selecting and implementing more active, creative, and student-centered learning approaches that are responsive to classroom needs.

METHOD

This study employed a Classroom Action Research (CAR) design, as it was oriented toward the direct improvement of the Islamic Religious Education (IRE) learning process through the implementation of the Jigsaw cooperative learning model. This design was considered appropriate because the study sought not only to examine learning outcomes but also to investigate the processes of planning, implementation, evaluation, and the challenges encountered during the intervention. The research was conducted in a fourth-grade class at Sabbihisma 04 Elementary School, Padang, involving 24 students and one Islamic Religious Education teacher as the primary source of data.

The intervention was implemented in two cycles. Cycle I was conducted on October 4 and October 9, 2025, while Cycle II was carried out on October 16 and October 18, 2025. Each cycle followed the stages of planning, action, observation, and reflection, enabling the researcher to monitor and evaluate the progressive development of the learning process.

Data were collected through classroom observations, achievement tests, interviews, and documentation. Observations were used to assess both teacher and student activities during the learning process. Achievement tests were administered to measure students' learning achievement in Islamic Religious Education. Interviews were conducted to obtain in-depth information regarding the implementation of the Jigsaw learning model, while documentation served to support and verify the research findings.

To ensure the trustworthiness of the data, source triangulation, technique triangulation, and time triangulation were employed. Data analysis combined quantitative and qualitative approaches. Quantitative analysis focused on students' test scores and learning mastery levels, whereas qualitative analysis followed the procedures of data reduction, data display, and conclusion drawing to provide a comprehensive understanding of the implementation and effectiveness of the Jigsaw cooperative learning model.

RESULTS AND DISCUSSION

Sabbihisma 04 Elementary School Padang is an Islamic elementary educational institution operating under the Fahmul Qur'an Sabbihisma Foundation. The school was established in response to the needs of the Muslim community for a formal educational institution that emphasizes not only academic achievement but also the strengthening of Islamic values, moral character, and love for the Qur'an. Historically, the school obtained its establishment license through Decree No. 421.6/014/DP/BID.P2MP-02/2020 on January 8, 2020, and its operational permit through Decree No. 421.6/165/DP/BID.P2MP-02/2020 on March 2, 2020. The school is located at Jalan Adinegoro No. 27, Batang Kabung Ganting Village, Koto Tangah District, Padang City, West Sumatra, Indonesia. As part of the Sabbihisma educational ecosystem, the school upholds the vision of "Developing an Islamic

Generation that is Knowledgeable and Virtuous,” referring to individuals who possess both intellectual competence and exemplary moral character. This vision is reinforced through the school’s mission, which positions elementary education as a gateway for nurturing students as Allah’s vicegerents (khalifah), fostering Islamic lifestyles, strengthening technological literacy, and implementing an integrated curriculum through a Qur’an-centered school concept.

In this study, Sabbihisma 04 Elementary School Padang was selected as a relevant research setting due to its strong institutional commitment to Islamic education, supported by an established organizational structure, curriculum, and adequate educational facilities. The school implements the Merdeka Curriculum and enrolled 268 students during the 2025/2026 academic year, distributed across twelve classes from Grade I to Grade VI. The study specifically focused on Grade IV students as the subjects for the implementation of the Jigsaw cooperative learning model in Islamic Religious Education (IRE). The selection of Grade IV was particularly important because students at this developmental stage require learning experiences that are active, concrete, collaborative, and engaging. Furthermore, the school provides supportive facilities, including classrooms, a prayer room, a library, laboratories, a school health unit, and teachers’ offices, all of which facilitate the implementation of innovative instructional approaches. Given its integrated Islamic educational environment, substantial student population, and commitment to developing knowledgeable and morally upright individuals, Sabbihisma 04 Elementary School Padang represents an appropriate setting for examining the effectiveness of the Jigsaw model in improving students’ achievement in Islamic Religious Education.

The preliminary findings revealed that Islamic Religious Education learning in Grade IV at Sabbihisma 04 Elementary School Padang faced significant challenges related to student engagement and academic achievement. Prior to the intervention, instruction was predominantly delivered through lectures, question-and-answer sessions, and note-taking activities. This approach resulted in a teacher-centered learning environment in which students had limited opportunities to engage in discussion, exchange ideas, and develop shared responsibility for learning. The pretest results indicated that only 9 out of 24 students (37.5%) achieved the Minimum Mastery Criterion (MMC) of 75, while 15 students (62.5%) failed to meet the required standard. The total pretest score of 1,606, with an average score of 66.92, demonstrates that students’ initial achievement remained below the expected level of mastery. These findings suggest that the low learning outcomes were not solely attributable to students’ individual abilities but were also associated with instructional strategies that had not sufficiently promoted active participation, social interaction, and meaningful learning experiences in the Islamic Religious Education classroom.

Based on these initial conditions, the implementation of the Jigsaw cooperative learning model was considered an appropriate intervention because it positions students as active participants in the learning process. The Jigsaw model is structured through the formation of home groups and expert groups, requiring each student to master a specific segment of the learning material, discuss it within the expert group, and subsequently teach it to members of the home group. This mechanism is significant because cooperative learning emphasizes not only group work but also individual accountability and positive interdependence among group members. Slavin (2014) argues that cooperative learning becomes effective when

students share common group goals and maintain clear individual accountability, thereby encouraging every member to contribute to group success. Similarly, Johnson and Johnson (2009) explain that the effectiveness of cooperative learning is grounded in positive interdependence, promotive interaction, individual responsibility, social skills, and group processing. Therefore, the application of the Jigsaw model in Islamic Religious Education at Sabbihisma 04 Elementary School Padang can be understood as a pedagogical strategy designed to transform a passive classroom environment into a more active, dialogical, and collaborative learning community.

Implementation of Cycle I in Jigsaw-Based Islamic Religious Education Learning



Figure 1. Students engaging in discussions within home groups and expert groups during the lesson on “Understanding the Concept of Puberty from a Biological Perspective.”

Based on the initial condition, which indicated a low level of learning mastery in Islamic Religious Education (IRE), the implementation of Cycle I was designed as an intervention to improve the learning process through the Jigsaw cooperative learning model. During the planning stage, the researcher collaborated with the Islamic Religious Education teacher, Ustadz Zalmi Putra, S.Pd., to prepare instructional materials and learning instruments, including teaching modules, learning objectives, activity designs, instructional media, assessment instruments, attendance lists, and observation sheets. The selected topic was “Understanding the Concept of Puberty from a Biological Perspective,” as it required not only conceptual understanding but also communicative explanations that were appropriate to the developmental characteristics of fourth-grade students. This planning stage was essential to ensure that the Jigsaw model was implemented not merely as a variation of teaching methods but as a structured, measurable, and student-centered instructional strategy capable of promoting active participation in the learning process.

Cycle I was conducted in two instructional meetings on October 4 and October 9, 2025, followed by an end-of-cycle assessment on October 11, 2025. The teacher began the lesson with greetings, prayer, attendance checking, explanation of learning objectives, and motivational activities. Subsequently, the teacher provided a

brief introduction to the lesson content and explained the procedures of the Jigsaw learning model. Students were then divided into four heterogeneous home groups, each consisting of six members. Every student was assigned a different subtopic, including the biological concept of puberty, signs of puberty in boys, signs of puberty in girls, and responsibilities after reaching puberty. Students assigned the same subtopic formed expert groups to discuss and master the content before returning to their respective home groups to share their understanding with peers. This instructional structure gradually shifted the learning process from a teacher-centered approach toward a more collaborative learning environment, although many students initially appeared unfamiliar with group-based learning activities.

The results of Cycle I demonstrated a substantial improvement compared with the baseline condition. During the pretest stage, only 9 students (37.5%) achieved the Minimum Mastery Criterion (MMC), while 15 students (62.5%) failed to meet the required standard. Following the implementation of the Jigsaw model in Cycle I, the number of students achieving mastery increased to 20 students (83.3%), whereas the number of students who did not achieve mastery decreased to 4 students (16.7%). These findings indicate that the Jigsaw model had begun to exert a positive influence on students' achievement in Islamic Religious Education.

Nevertheless, classroom observations identified several aspects requiring improvement. Some students remained hesitant to ask questions, group discussions were not yet fully interactive, time management was not optimally utilized, and the teacher's efforts to motivate students required further strengthening. Consequently, the reflection stage of Cycle I served as an important basis for refining the implementation of Cycle II through clearer group guidance, enhanced motivational strategies, the provision of rewards and recognition, and more effective classroom and time management practices.

Implementation of Cycle II in Jigsaw-Based Islamic Religious Education Learning



Figure 2. Students engaging in discussion, expressing opinions, and explaining the lesson “The Adolescent Life of Prophet Muhammad (PBUH)” through the Jigsaw cooperative learning model.

The implementation of Cycle II was conducted as a follow-up to the reflections derived from Cycle I. Although the application of the Jigsaw cooperative

learning model in Cycle I had demonstrated improvements in learning outcomes, several challenges remained, including students' limited experience in collaborative discussion, reluctance to ask questions, ineffective time management, and the need for more intensive teacher guidance. Therefore, the planning stage of Cycle II focused on refining the instructional process to ensure a more effective implementation of the Jigsaw model. The researcher and the Islamic Religious Education (IRE) teacher collaboratively revised the teaching module, learning objectives, activity design, instructional media, assessment instruments, attendance records, and implementation procedures. The topic selected for Cycle II was "The Adolescent Life of Prophet Muhammad (PBUH)." This topic was divided into several subtopics, including the Prophet's adolescence, his behavior during youth, his noble characteristics, and the positive values and moral virtues that students could emulate in their daily lives.

Cycle II was implemented on October 16 and October 18, 2025, followed by the end-of-cycle assessment on October 23, 2025. The learning activities began with greetings, prayer, attendance checking, apperception activities, presentation of learning objectives, and motivational encouragement to prepare students for active participation. The teacher then briefly introduced the lesson content and reviewed the procedures of the Jigsaw cooperative learning model. Students were divided into four heterogeneous home groups, each consisting of six members. Every student was assigned a different subtopic and subsequently joined an expert group to study the assigned material in depth before returning to the home group to share and explain the acquired knowledge. Compared with Cycle I, students' learning activities demonstrated considerable improvement. Students became more willing to express opinions, provide responses, ask questions, and explain learning materials to their peers. Furthermore, the teacher played a more active role in monitoring discussions, providing guidance, assisting groups experiencing difficulties, and encouraging students to communicate their ideas with greater confidence.

The results of Cycle II revealed substantial improvement compared with both the baseline data and Cycle I. Initially, only 9 students (37.5%) achieved the Minimum Mastery Criterion (MMC). This number increased to 20 students (83.3%) in Cycle I and further improved to 23 students (95.9%) in Cycle II. Conversely, the number of students who did not achieve mastery declined from 15 students (62.5%) at the baseline stage to 4 students (16.7%) in Cycle I and only 1 student (4.1%) in Cycle II. The total score also increased from 1,606 at the baseline stage to 2,100 in Cycle II. These findings indicate that the Jigsaw cooperative learning model was effective not only in improving the instructional process but also in enhancing students' achievement in Islamic Religious Education. Classroom observations further revealed that students became more enthusiastic, more confident in expressing their opinions, more actively involved in discussions, and better able to understand learning materials through collaborative group work. Given the achievement of a 95.9% mastery rate, the intervention was considered successful, and no further cycle was deemed necessary.

The findings suggest that the successful implementation of the Jigsaw cooperative learning model in Islamic Religious Education was closely associated with the quality of instructional planning conducted prior to the intervention. In this

study, planning involved the preparation of teaching modules, formulation of learning objectives, selection of instructional materials, development of learning media, construction of assessment instruments, preparation of attendance records, and coordination between the researcher and the IRE teacher. Such preparation was essential because the Jigsaw model requires a systematic instructional sequence, including the formation of home groups and expert groups, collaborative discussion, peer teaching, and individual evaluation. From a theoretical perspective, cooperative learning is most effective when group goals and individual accountability are clearly established, thereby encouraging students to learn independently while simultaneously supporting their peers (Slavin, 2014). This principle is consistent with Social Interdependence Theory, which emphasizes positive interdependence, promotive interaction, individual accountability, social skills, and group processing as key determinants of successful cooperative learning (Johnson & Johnson, 2009). Therefore, instructional planning in this study functioned not merely as an administrative requirement but as a pedagogical foundation for transforming Islamic Religious Education from a passive instructional model into an active, collaborative, and responsibility-oriented learning process.

The implementation of the Jigsaw model also resulted in gradual changes in students' learning behaviors. Prior to the intervention, Islamic Religious Education instruction was largely dominated by lectures, question-and-answer sessions, and note-taking activities, leading to low student participation and unsatisfactory learning outcomes. Following the implementation of the Jigsaw model, students actively participated in home groups and expert groups, studied specific subtopics, discussed learning materials, and subsequently taught the content to members of their home groups. This process demonstrates that the Jigsaw model serves not only as a strategy for improving academic achievement but also as a means of developing social skills such as collaboration, confidence in asking questions, respect for diverse opinions, and responsibility for peers' understanding. Gillies (2016) argues that the effectiveness of cooperative learning is strongly influenced by teachers' ability to facilitate group interaction, guide discussions, and stimulate students' thinking processes throughout learning activities. These findings are consistent with the study conducted by Siska et al. (2022), which reported that successful implementation of the Jigsaw model in elementary Islamic Religious Education requires adherence to its procedural steps to maximize discussion, cooperation, and mastery of learning materials.

From an evaluative perspective, the study demonstrated a consistent improvement in students' academic achievement from the baseline condition through Cycle I and Cycle II. At the baseline stage, only 9 students (37.5%) achieved the MMC, whereas 15 students (62.5%) failed to meet the required standard. Following Cycle I, mastery increased to 20 students (83.3%), and in Cycle II, it further increased to 23 students (95.9%). These improvements suggest that the Jigsaw model effectively enhanced both the learning process and students' achievement in Islamic Religious Education. Academically, these results can be explained through the mechanisms of individual accountability and peer teaching, as students were required not only to receive information from the teacher but also to process, explain, and communicate their understanding to others. The meta-analysis conducted by Cochon Drouet et al. (2023) concluded that the Jigsaw method can

positively influence educational outcomes, particularly when implementation is clearly structured and adapted to classroom contexts. Similarly, Az-zuhri et al. (2025) found that the Jigsaw model was more effective than conventional instruction in promoting active student participation in Islamic Religious Education classes. Therefore, the improvement in mastery learning observed in this study reinforces the relevance of the Jigsaw model as an instructional strategy for Islamic Religious Education at the elementary school level.

Despite the significant improvements achieved, the implementation of the Jigsaw model was not without challenges. These challenges included differences in students' abilities to comprehend learning materials, limited instructional time to complete both expert-group and home-group activities, and the readiness of teachers and students to transition from conventional teaching approaches to cooperative learning. During Cycle I, these challenges were evident in students' reluctance to participate in discussions, fear of expressing opinions, and ineffective use of available time. However, through reflection and continuous improvement in Cycle II, the learning process became more effective, as demonstrated by increased student confidence in asking questions, providing responses, completing learning tasks, and understanding instructional content. These findings support the argument that the effectiveness of the Jigsaw model does not occur automatically but depends heavily on teacher preparedness, classroom management, clear role distribution, and continuous facilitation throughout the discussion process (Cochon Drouet et al., 2023; Gillies, 2016). Consequently, the significance of this study lies not only in providing empirical evidence that the Jigsaw model can improve students' achievement in Islamic Religious Education but also in demonstrating that successful implementation requires careful planning and ongoing reflection to systematically address instructional challenges.

CONCLUSION

Based on the overall findings of the study, it can be concluded that the implementation of the Jigsaw cooperative learning model was effective in improving the achievement of fourth-grade students in Islamic Religious Education (IRE) at Sabbihisma 04 Elementary School, Padang. The model was implemented through a Classroom Action Research (CAR) framework consisting of planning, action, observation, and reflection stages conducted over two cycles.

Prior to the intervention, Islamic Religious Education instruction was predominantly characterized by lectures, question-and-answer sessions, and note-taking activities. As a result, students tended to be passive, less focused, and unable to achieve optimal learning outcomes. This condition was reflected in the baseline data, which showed that only 9 students (37.5%) achieved the Minimum Mastery Criterion (MMC). Following the implementation of the Jigsaw model in Cycle I, the number of students achieving mastery increased to 20 students (83.3%). In Cycle II, mastery learning further improved to 23 students (95.9%).

These findings indicate that the Jigsaw model successfully fostered a learning environment that was more active, collaborative, communicative, and meaningful. Through the use of home groups and expert groups, students were encouraged to participate actively in discussions, exchange ideas, assume responsibility for learning, and support their peers in understanding instructional materials. Consequently, the

learning process became more student-centered and contributed positively to academic achievement in Islamic Religious Education.

Although several challenges were encountered during implementation, including differences in students' learning abilities, limited instructional time, and the need for adaptation to a new learning model, these obstacles were effectively addressed through teacher guidance, motivational support, effective group management, and continuous reflection. Therefore, the study concludes that the Jigsaw cooperative learning model is a viable and effective instructional strategy for enhancing Islamic Religious Education learning outcomes at the elementary school level.

The findings also suggest that future studies may explore the application of the Jigsaw model in different educational settings, grade levels, and subject areas to further examine its effectiveness and broader educational implications.

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