



Interaction of Cooperative Learning and Prior Knowledge on Islamic Religious Education Learning Outcomes

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Abstract

This study aims to analyze the interaction between cooperative learning models and prior knowledge in influencing Islamic Religious Education learning outcomes. A quantitative approach with a factorial experimental design was employed, involving 96 students as the research sample. Data were analyzed using a *Two-Way Analysis of Variance* to examine the effects of learning models, prior knowledge, and their interaction on learning outcomes. The findings revealed significant differences in learning outcomes across learning models. The *Think Pair Square* model produced the highest mean score (78.72), followed by *Think Pair Share* (74.50) and conventional instruction (68.03). Significant differences were also found based on prior knowledge, with students possessing high prior knowledge achieving better learning outcomes than those with moderate and low levels. Furthermore, a significant interaction effect was identified between learning models and prior knowledge. The *Think Pair Share* model was more effective for students with high prior knowledge, whereas the *Think Pair Square* model yielded more optimal outcomes for students with moderate and low prior knowledge. These findings highlight the importance of aligning instructional strategies with students' cognitive readiness to optimize learning outcomes in Islamic Religious Education.

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INTRODUCTION

Education is a strategic tool for developing human resources who are knowledgeable, possess strong character, and are adaptable to the changing times (Dartini et al., 2025; Sidiq et al., 2025). The success of the educational process is determined not only by the quality of the curriculum and learning materials but also by the effectiveness of the teaching models teachers employ to foster students' active engagement (Bahja et al., 2025). Learning that remains dominated by a teacher-centered approach tends to limit student participation in the process of knowledge construction, resulting in low levels of critical and collaborative thinking skills as well as poor student learning outcomes (Hannan et al., 2025). Therefore, the development of learning models oriented toward student activity has become a critical need for improving the quality of learning across various fields of study, including Islamic Religious Education.

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Islamic Religious Education has characteristics that distinguish it from other subjects because it is not only oriented toward mastery of cognitive aspects but also toward the development of students' attitudes, values, and behavior. In practice, Islamic Religious Education is expected to integrate religious knowledge with real-life situations so that students can fully understand, internalize, and practice Islamic values (Alsi, 2025). One topic requiring such integration is the structure of the Earth and the natural phenomenon of earthquakes. This topic not only explains the scientific aspects of geological processes but also encourages students to understand natural phenomena as signs of Allah's greatness, which can serve as a means of reflection and strengthening of faith (Shihab, 2018). The complexity of this topic requires the use of instructional models capable of actively developing students' thinking skills, discussion abilities, and understanding.

One widely recommended approach is cooperative learning. Vygotsky's theory of social constructivism asserts that knowledge is constructed through social interaction and collaboration among students. In this context, the cooperative learning model provides space for students to exchange ideas, clarify their understanding, and construct knowledge together, thereby improving the quality of learning outcomes (Lumanauw et al., 2025). Various studies show that cooperative learning contributes positively to improvements in students' academic achievement, critical thinking skills, communication, and social skills (Ramadhanti et al., 2025; Saputra et al., 2024).

Among the various cooperative learning models, Think-Pair-Share is widely used because it provides students with the opportunity to think individually, discuss with a partner, and share their thoughts with a larger group (Rukmini, 2020). Research by Jumrah, (2023); Susanti & Sholihat, (2025); Wulan et al., (2026); Yana & Nurhaliza, (2024) shows that the Think Pair Share model can improve learning outcomes, learning activities, and students' confidence in expressing their opinions. This model is considered effective because it provides sufficient thinking time before students interact with their peers, thereby improving the quality of the arguments that emerge.

As an extension of Think Pair Share, the Think Pair Square model broadens learning interactions through a larger group discussion phase following the pairing process. Through this mechanism, students receive feedback not only from a single partner but also from a broader group, thereby deepening the process of concept elaboration and validation. Several studies indicate that Think Pair Square is more effective at enhancing students' problem-solving skills, collaboration, and learning outcomes compared to conventional instruction (Kurniawan et al., 2026; Yani et al., 2024). These findings suggest that expanding social interaction in the learning process has the potential to significantly contribute to improving the quality of learning.

On the other hand, conventional teaching is still widely used in various educational institutions because it is considered practical and efficient for delivering content. Nevertheless, several studies report that the teacher's dominant role in conventional learning often limits students' opportunities to actively participate in the learning process, resulting in low levels of conceptual understanding and student learning outcomes (Harahap, 2026; Sembiring et al., 2025). This situation underscores the need to test more participatory learning models to create a more effective learning process.

In addition to instructional models, students' internal factors also play a

crucial role in determining learning success, one of which is prior knowledge. According to [Susanto & Anggresta, \(2024\)](#), prior knowledge is the most important factor influencing learning success because new information is better understood when linked to existing cognitive structures. Research conducted by [Pioke et al., \(2022\)](#) shows that students with high prior knowledge tend to achieve better learning outcomes than students with low prior knowledge. Therefore, the effectiveness of a learning model cannot be separated from the characteristics of students' prior knowledge.

Various previous studies have examined the effectiveness of the Think-Pair-Share and Think-Pair-Square models, as well as the influence of prior knowledge on learning outcomes. However, most of these studies were conducted separately, focused on general subjects, and primarily addressed the direct effects of each variable on learning outcomes. Studies that simultaneously analyze the interaction between cooperative learning models and prior knowledge in Islamic Religious Education particularly regarding the structure of the Earth and the natural phenomenon of earthquakes remain relatively limited. In fact, the interaction between these two variables has the potential to provide a more comprehensive picture of how well learning models align with student characteristics, thereby leading to more effective learning.

Previous research has demonstrated the effectiveness of the Think Pair Share and Think Pair Square models, as well as the impact of prior understanding on student learning outcomes. However, there remains a research gap regarding how these two cooperative learning models interact with students' prior understanding levels in the context of Islamic Religious Education. Furthermore, research directly comparing Think Pair Share, Think Pair Square, and conventional learning on the topics of Earth's structure and the natural phenomenon of earthquakes remains very limited.

The novelty of this study lies in examining the interaction between the Think Pair Share, Think Pair Square, and conventional learning models and students' prior understanding in Islamic Religious Education. This study not only compares the effectiveness of the three learning models but also analyzes the fit between the learning models and students' prior understanding levels using a factorial experimental design and a two-way analysis of variance.

The results of this study are expected to make a theoretical contribution by enriching the study of cooperative learning and the theory of prior knowledge in the context of Islamic Religious Education. In practical terms, the research findings can serve as a basis for teachers in determining learning models that align with students' ability characteristics, thereby making the learning process more effective. Furthermore, the results of this study can serve as a reference for curriculum developers and education policymakers in designing learning strategies that are more adaptive, differentiated, and oriented toward improving student learning outcomes.

METHODS

Research methodology is a series of scientific procedures used to obtain valid, reliable, and objective data to answer the research questions. Selecting the appropriate method is crucial because it determines the quality of the data, the accuracy of the analysis, and the level of reliability of the resulting findings ([Creswell, 2018](#); [Muhaimin & Amir, 2020](#); [Sugiyono, 2022](#)). Therefore, this study

was systematically designed to examine the interaction between cooperative learning models and prior comprehension abilities on learning outcomes in Islamic Religious Education through a quantitative approach and statistical analysis procedures appropriate to the research objectives.

Methods and Types

This study employs a quantitative approach using a quasi-experimental research design. A quantitative approach was chosen because the study focuses on objectively measuring the relationships between variables through statistical analysis (Creswell, 2018; Engkizar et al., 2018, 2025; 2026; Kassymova et al., 2025; Thuwaiba & Salaeh, 2025). The research design used was a 3×3 factorial design, which allowed the researcher to test the effects of the learning model, prior comprehension, and their interaction on student learning outcomes. The independent variables in this study are the learning models Think Pair Share, Think Pair Square, and conventional learning while prior comprehension serves as the moderator variable and learning outcomes in Islamic Religious Education as the dependent variable (Dasrizal et al., 2025; Engkizar et al., 2026).

Data Sources

The data sources in this study consist of primary data obtained directly from the research respondents through initial comprehension tests and learning outcome tests. The study population included all students enrolled in Islamic Religious Education classes covering the topics “Earth’s Structure” and “Natural Phenomena: Earthquakes.” The research sample consisted of 96 students selected using the cluster random sampling technique, which is a sampling technique based on existing groups or classes so that each group has an equal chance of being selected as a research sample (Sugiyono, 2022). The sample was then distributed into treatment groups according to the learning model applied and classified based on the students’ levels of prior understanding.

Instruments

Research instruments are tools used to collect data in accordance with the research objectives. In this study, the instruments used consisted of a pre-test to assess initial understanding and a post-test to assess learning outcomes in Islamic Religious Education. The pre-test was used to measure students’ mastery of the material on Earth’s Structure and the Natural Phenomenon of Earthquakes before the intervention was administered. The results of this assessment were then used to group students into high, moderate, and low ability categories. The learning outcome test was used to measure students’ learning achievements after participating in the learning process. The test instruments were designed as multiple-choice questions based on predetermined competency indicators and developed in accordance with the principles of educational assessment instrument design, which emphasize validity, reliability, objectivity, and measurability (Arikunto, 2021; Sudjana & Rivai, 2007).

Data Collection Techniques

Data collection was conducted through a two-stage testing method. The first stage consisted of a pre-test administered before the intervention to assess students’ initial understanding of the material to be studied. The second stage consisted of a post-test administered after the entire instructional intervention was completed to measure students’ learning outcomes in Islamic Religious Education. The pre-test and post-test were administered to obtain information regarding students’ initial conditions and changes in learning outcomes following the

implementation of the Think Pair Share, Think Pair Square, and conventional teaching models. The use of testing techniques in experimental research is considered effective because it produces objective quantitative data that can be statistically analyzed to test research hypotheses (Creswell, 2018).

Data Analysis Tools

Data analysis was conducted using the Statistical Package for the Social Sciences (SPSS) software. SPSS was chosen because it has the capability to process statistical data systematically, accurately, and efficiently, particularly in parametric statistical tests such as two-way analysis of variance (Field, 2018). Using this software, the research data can be analyzed to obtain information regarding the effects of each variable as well as the interactions between variables on student learning outcomes.

Data Analysis Techniques

Data analysis was conducted in two stages. The first stage involved testing the prerequisites for analysis, which included normality tests using the Kolmogorov-Smirnov and Shapiro-Wilk methods, as well as a test for homogeneity of variances using Levene's Test of Equality of Error Variances. These tests are conducted to ensure that the data meet the assumptions of parametric statistics, thereby making them suitable for further analysis using analysis of variance (Field, 2018). The second stage involves hypothesis testing using a Two-Way Analysis of Variance (ANOVA) at a significance level of 0.05. This analysis is used to test the effect of the learning model on learning outcomes, the effect of prior comprehension ability on learning outcomes, and the interaction between the learning model and prior comprehension ability on learning outcomes in Islamic Religious Education. If significant differences are found, the analysis continues with a Bonferroni post hoc test to identify groups with significantly different means. Through these analytical steps, a comprehensive picture of the effectiveness of each learning model based on students' levels of prior comprehension is obtained (Creswell & Creswell, 2023).

Data Validity

Data validity was assessed through validity and reliability tests of the instrument. The validity test aimed to ensure that each item of the instrument was capable of measuring the construct intended to be measured. Validity testing was conducted using Pearson's product-moment correlation by comparing the calculated *r*-value and the table *r*-value at a significance level of 0.05. An instrument item is considered valid if the calculated *r*-value is greater than the table *r*-value (Arikunto, 2021). Next, reliability testing was conducted using Cronbach's alpha to determine the instrument's level of consistency. The instrument was deemed reliable if it had a Cronbach's alpha of at least 0.70, indicating that it possessed a good level of internal consistency and was suitable for use in the study (Hundleby & Nunnally, 1968).

RESULT AND DISCUSSION

This study aims to provide an in-depth analysis of the implementation and comparative effectiveness of three instructional models (Think Pair Share; Think Pair Square; and Conventional) when applied to Islamic Religious Education classes, with a focus on the topic of Earth's Structure and the natural phenomenon of earthquakes. In addition to comparing the models, this study also aims to analyze the influence of students' initial comprehension levels (high, moderate,

low) as well as the effect of the interaction between the learning models and these comprehension levels on students' final learning outcomes.

Based on a series of parametric statistical assumption tests, the residual data in this study were found to be normally distributed (Kolmogorov-Smirnov Sig. value = 0.200 and Shapiro-Wilk Sig. value = 0.718 > 0.05)

Having demonstrated that the model variation has a significant effect, it became urgent to examine whether these outcomes were homogeneous across all students or whether there were differences influenced by their levels of internal cognitive readiness. Therefore, the analysis continued to examine the influence of the variable "initial comprehension ability."

Table 1. Students' Initial Comprehension Ability

Levene's Test of Equality of Error Variances^{a,b}

			Levene Statistic	df1	df2	Sig.
Islamic Education Learning Outcomes	Based on Mean		.386	8	87	.925
	Based on Median		.356	8	87	.941
	Based on Median and with adjusted df		.356	8	73.738	.940
	Based on trimmed mean		.382	8	87	.928

Furthermore, the variances across groups were homogeneous (Levene's Test p-value = 0.925 > 0.05). Since all requirements were met, the analysis proceeded with a parametric Two-Way ANOVA and a Bonferroni Post Hoc Test, with the following in-depth interpretation:

Table 2. Tests of Between-Subjects Effects

Dependent Variable: Islamic Education Learning Outcomes

Source	Type III Sum of Squares	df	Mean Square	F	Sig.
Corrected Model	4648.411 ^a	8	581.051	21.775	.000
Intercept	499841.474	1	499841.474	18731.224	.000
Learning Model	1172.030	2	586.015	21.961	.000
SBFAGB Comprehension Skills	2098.671	2	1049.335	39.323	.000
Learning Model * SBFAGB Comprehension Skills	731.582	4	182.895	6.854	.000
Error	2321.589	87	26.685		
Total	529120.000	96			
Corrected Total	6970.000	95			

Based on the test results in the "Tests of Between-Subjects Effects" output box, the significance value (Sig.) for the Learning Model variable was 0.000. Since the Sig. value of 0.000 is less than 0.05, the statistical decision is to reject H0 and

accept H1, which means there is a significant difference in students' Islamic Education learning outcomes based on the learning models (Think Pair Share, Think Pair Square, and Conventional).

Table 3. Multiple Comparisons

Dependent Variable: Learning Outcomes for Islamic Religious Education

Bonferroni

(I) Learnin g Model	(J) Learnin g Model	Mean Differenc e (I-J)	Std. Error	Sig.	95% Confidence Interval	
					Lower Bound	Upper Bound
TPS	TPSq	-4.2187*	1.2914 4	.00 5	- 7.3713	- 1.0662
	Konv	6.4688*	1.2914 4	.00 0	3.3162	9.6213
TPSq	TPS	4.2187*	1.2914 4	.00 5	1.0662	7.3713
	Konv	10.6875*	1.2914 4	.00 0	7.5349	13.840 1
Konv	TPS	-6.4687*	1.2914 4	.00 0	- 9.6213	- 3.3162
	TPSq	-10.6875*	1.2914 4	.00 0	- 13.840 1	- 7.5349

Descriptively, the Think Pair Square (TPSq) model recorded the highest mean score of 78.72, followed by the Think Pair Share (TPS) model at 74.50, and the Conventional model with the lowest mean score of 68.03. A multiple comparison analysis (Bonferroni Post Hoc Test) revealed these specific differences more clearly:

TPS vs. TPSq: The mean difference was -4.21 with a significance level (Sig.) of 0.005 (< 0.05). This proves that the expanded group structure in TPSq significantly outperforms the TPS model.

TPS vs. Conventional: The mean difference is 6.48 with a significance level (Sig.) of 0.000 (< 0.05). This proves that cooperative classes are far more effective than one-way classes.

TPSq vs. Conventional: The mean difference was 10.68 with a significance value of 0.000 (< 0.05). The TPSq group demonstrated the most striking and significant advantage in learning outcomes among all models.

Theoretically, the absolute advantage of these cooperative models (TPSq and TPS) stems from the fact that their instructional processes are structurally designed to influence students' interaction patterns by providing time for independent thinking before sharing with others. In Islamic Religious Education subjects such as Earth's Structure and Earthquakes, the presentation of material should not merely involve a rigid explanation of geological concepts but must guide students to understand the grandeur of creation and engage in contemplation of nature.

Conventional models fail to optimize this because a teacher-centered approach through one-way lectures tends to create a passive, monotonous classroom atmosphere and makes it difficult for students to fully internalize the

subject matter (Lase, 2016; Trianto, 2014). In contrast, the Think Pair Square (TPSq) and Think Pair Share (TPS) models successfully foster a modern cooperative classroom that prioritizes social interaction among students. The Think Pair Square (TPSq) model is the most effective because it extends students' reasoning process to larger groups (four students per square), which serves as social scaffolding to enrich their collective understanding and validate their logical thinking before moving on to a whole-class discussion (Masyhudah & Widyasari, 2024).

Differences in Islamic Religious Education Learning Outcomes Based on Students' Comprehension Skills

Table 4. Multiple Comparisons

Dependent Variable: Learning Outcomes for Islamic Religious Education
Bonferroni

(I) SBFAGB Comprehensi on Skills	(J) SBFAGB Comprehensi on Skills	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
					Lower Bound	Upper Bound
High	Medium	11.0000*	1.31701	.000	7.7850	14.2150
	Low	11.9742*	1.38860	.000	8.5844	15.3640
Medium	High	-11.0000*	1.31701	.000	-14.2150	-7.7850
	Low	.9742	1.23609	1.000	-2.0433	3.9917
Low	High	-11.9742*	1.38860	.000	-15.3640	-8.5844
	Medium	-.9742	1.23609	1.000	-3.9917	2.0433

For the SBFAGB Comprehension Ability variable, the ANOVA test yielded a Sig. value of 0.000 (< 0.05). This confirms the hypothesis that there are significant differences in students' Islamic Education learning outcomes based on their level of comprehension regarding the Earth's structure and the natural phenomenon of earthquakes (High, Medium, and Low).

The Bonferroni post-hoc test revealed the details of these cognitive differences: High vs. Moderate Ability (Mean Difference = 11.00; Sig. 0.000) and High Ability vs. Low Ability (Mean Difference = 11.97; Sig. 0.000) indicate that students with High initial ability achieved significantly better learning outcomes (overall mean of 82.20) compared to the other two groups. Moderate Ability vs. Low Ability: A significance value of 1.000 (> 0.05) was obtained. These results indicate that there is no significant difference in learning outcomes between students with moderate and low levels of comprehension ability.

This indicates that students' initial level of cognitive readiness is a critical determinant of their success in mastering the material. High-ability students possess a strong knowledge base, making them more adaptable in assimilating the integration of science and spiritual values (Haikal & Sicha, 2025; Zuairiyah et al., 2025). On the other hand, the similarity in learning outcomes between the moderate and low-ability groups (Sig. 1.000) confirms that both groups face equivalent cognitive barriers; therefore, they require a learning model intervention that provides strong social scaffolding within the classroom (Lindayana, 2026; Mumtazah, 2025).

Interaction Between Instructional Models and Students' Comprehension Skills

The results of the ANOVA test for the interaction effect (Instructional Model $\times$ Comprehension Skills SBFAGB) showed a Sig. value of 0.000 (< 0.05). This provides an unequivocal conclusion that there is a significant interaction between the

Instructional Model and Comprehension Ability in determining students' learning outcomes in Islamic Religious Education. This means that the effectiveness of the instructional model is highly dependent on students' initial ability levels, and vice versa. This unique interaction phenomenon is clearly illustrated in the Profile Plot and Descriptive Statistics as follows.

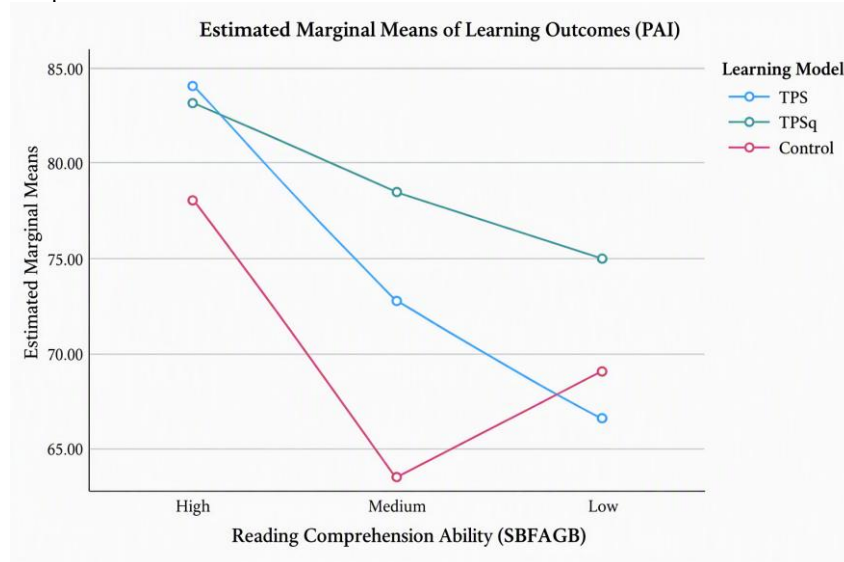


Fig. 1. Profile Plot and Descriptive Statistics

The trend in the interaction between the learning model and students' cognitive comprehension levels in influencing learning outcomes in Islamic Religious Education can be clearly observed in this figure. First, the High-Ability Student Group: The Think Pair Share (TPS) model demonstrated the highest effectiveness, with the highest average score of 84.00. The characteristics of high-ability students who are already independent make them perform optimally when given time for independent thinking and exchanging ideas directly with a partner without needing to merge into a larger group (Agustina, 2021).

Second, the Group of Students with Moderate Abilities: The Think Pair Square (TPSq) model showed the best results (an average of 78.54) compared to Think Pair Share (TPS) (72.76) and the Conventional method (62.93). Students of moderate ability benefit greatly from the square (four-person) structure because this gradual transition validates their thinking and prevents misconceptions through dynamic peer-group discussions.

Third, the Low-Ability Student Group: The Think Pair Square (TPSq) model recorded the highest scores (average 75.10). However, there was a very interesting anomaly: in this low-ability group, the Conventional model (69.00) actually yielded slightly better results than the Think Pair Share (TPS) model (66.44).

Theoretically, this anomaly among low-ability students occurs because this situation indicates cognitive overload experienced by low-ability students when placed in the Think Pair Share (TPS) model. Without a solid grounding in foundational concepts through traditional classroom instruction, the independence required during the "think" and "pair" stages actually triggers learning disorientation (Asmadi et al., 2024). Under these conditions, a conventional model relying on a teacher-centered approach through structured lectures is actually more helpful for them in understanding the theoretical-declarative basis of the earth science material (Juniari et al., 2026).

Nevertheless, the Think Pair Square (TPSq) model remains the best solution for low-performing groups because expanding the group size to four students creates opportunities for strong cognitive scaffolding, in which low-performing students receive assistance in assimilating knowledge from higher-performing peer tutors within their group.

CONCLUSION

Cooperative learning models and prior comprehension have been shown to make a significant contribution to learning outcomes in Islamic Religious Education. The Think-Pair-Square model yields higher learning outcomes compared to Think-Pair-Share and conventional instruction. Additionally, students with high prior comprehension demonstrate better learning outcomes than those with moderate or low prior comprehension. The research findings also reveal a significant interaction between the learning model and prior comprehension skills, indicating that the effectiveness of a learning model depends on students' level of cognitive readiness. The Think Pair Share model tends to be more effective for students with high prior comprehension skills, while the Think Pair Square model yields more optimal results for students with moderate and low prior comprehension skills.

The novelty of this study lies in the analysis of the interaction between the Think-Pair-Share, Think-Pair-Square, and conventional learning models and students' prior comprehension abilities in the context of Islamic Religious Education, specifically regarding the topics of Earth's Structure and the Natural Phenomenon of Earthquakes. These findings suggest that the effectiveness of cooperative learning is determined not only by the characteristics of the learning model but also by its suitability for students' prior abilities. In practical terms, the research results can serve as a basis for teachers to implement more adaptive and differentiated learning strategies tailored to students' characteristics, thereby making the Islamic Religious Education learning process more effective in improving the quality of student learning outcomes.

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Author contribution

Ahmad Nazar Fakhury: data curation, writing-original draft preparation, **Ghifar Ramadhan:** analysis, conceptualization, **Rahayu Kariadinata:** methodology, **Elis Ratna Wulan:** visualization, and editing.

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REFERENCES

- Agustina, A. (2021). Peningkatan Prestasi Belajar Siswa pada Pelajaran Bahasa Indonesia Materi Menulis Teks Resensi dengan Menerapkan Model Pembelajaran Kooperatif Tipe Think Pair Share (TPS) di Kelas XI MIPA 1 SMAN 2 Bolo Semester II Tahun Pelajaran 2020/2021. *Jurnal Pendidikan Dan Pembelajaran Indonesia (JPPI)*, 1(2), 316–327. <https://doi.org/10.53299/jppi.v1i2.93>
- Alsi, I. (2025). Rekonstruksi Konsep Pembelajaran Pendidikan Agama Islam Berbasis Nilai-nilai Qur'ani Ilham. *Artikel Ilmiah Pendidikan Islam*, 3(September), 1–13. <https://doi.org/10.62070/kaipi.v3i2.360>
- Arikunto, S. (2021). *Dasar-Dasar Evaluasi Pendidikan Evaluasi Pendidikan Edisi* (p. 310).
- Asmadi, A., Faridah, F., Sakdiah, N., Sa'diyah, S. A., Yuranti, L., & Tari, N. R. (2024). Metodologi Pengajaran PAI dengan Metode Pembelajaran Konvensional di Madrasah Tsanawiyah Negeri 3 Kabupaten Batang Hari. *Pedagogika: Jurnal Ilmu-Ilmu Kependidikan*, 4(2), 39–42. <https://doi.org/10.57251/ped.v4i2.1537>
- Bahja, A. W. T., Hakim, L., & Afidah R, A. (2025). Literature Review: Analisis Model Pembelajaran Efektif dalam Implementasi Kurikulum Merdeka di Sekolah. *Konstruktivisme: Jurnal Pendidikan Dan Pembelajaran*, 17(1), 11–27. <https://doi.org/10.35457/konstruk.v17i1.3651>
- Creswell, J. W. (2018). *Mixed methods procedures. In Research Design: Qualitative, Quantitative and Mixed Method Approaches*.
- Creswell, J. W., & Creswell, J. D. (2023). *Research Design Qualitative, Quantitative. And Mixed Methods Approaches*.
- Dartini, N. P. D. S., Atmadja, A. T., Suastra, I. W., & Tika, I. N. (2025). Analisis Filsafat Pendidikan dalam Pembangunan Sumber Daya Manusia: Sebuah Studi Literatur. *Jurnal Filsafat Indonesia*, 8(2), 190–197. <https://doi.org/10.23887/jfi.v8i2.87175>
- Dasrizal, D., Rambe, K. F., Sihombing, C. D., Khalid, E., & Safitri, D. A. (2025). Distortion of Quranic Interpretation on Social Media: An Analysis of the Spread of Misleading Meanings. *Journal of Quranic Teaching and Learning*, 1(2), 65–82. <https://joqer.intischolar.id/index.php/joqer/article/view/8>
- Engkizar, E., Jaafar, A., Alias, M. F. B., Guspita, R., & Albizar, A. (2025). Utilisation of Artificial Intelligence in Qur'anic Learning: Innovation or

- Threat? *Journal of Quranic Teaching and Learning*, 1(2), 1–17.
<https://joqer.intischolar.id/index.php/joqer/index>
- Engkizar, E., Jaafar, A., Asril, Z., Hamzah, M. I., Syafril, S., Febriani, A., & Oktavia, G. (2026). Tartil Method: A Solution for Cultivating High-Achieving Students in Quranic Learning. *Khalifa: Journal of Islamic Education*, 10(1). <https://doi.org/10.24036/kjie.v10i1.474>
- Engkizar, E., Muliati, I., Rahman, R., & Alfurqan, A. (2018). The Importance of Integrating ICT Into Islamic Study Teaching and Learning Process. *Khalifa: Journal of Islamic Education*, 1(2), 148. <https://doi.org/10.24036/kjie.v1i2.11>
- Field, A. (2018). *Discovering statistics using IBM SPSS statistics* (5th ed.). SAGE Publications.
- Haikal, F., & Sicha, A. (2025). Integrasi Spiritualitas dan Rasionalitas. *JOIES (Journal of Islamic Education Studies)*, 10(2), 229–258. <https://doi.org/10.15642/joies.2025.10.2.229-258>
- Hannan, A., Prasetyorini, P., & Gerhani, F. (2025). Meningkatkan Cara Berpikir Kritis Siswa Melalui Strategi Embelajaran Berbasis Problem Based Learning (Pbl) Di Ma Nurul Imam. *AL-MUADDIB: Jurnal Kajian Ilmu Kependidikan*, 7(3), 217–234. <https://doi.org/10.46773/muaddib.v7i3.1977>
- Harahap, A. R. . P. A. S. A. . S. E. . M. L. . S. N. H. . M. S. . & P. L. (2026). Melampaui Pembelajaran Konvensional: Analisis Dampak Pembelajaran Kolaboratif terhadap Keterlibatan Aktif Siswa Pendidikan Vokasi. *Young Journal of Social Sciences and Humanities (YJSSH)*, 2(1), 70–81. <https://doi.org/10.66867/yjssh.v2i1.251>
- Hundleby, J. D., & Nunnally, J. (1968). Psychometric Theory. In *American Educational Research Journal* (3rd ed., Vol. 5, Issue 3). McGraw-Hill. <https://doi.org/10.2307/1161962>
- Jumrah, J. (2023). Meningkatkan Efektivitas Pembelajaran Matematika Melalui Penggunaan Model Kooperatif Tipe Think-Pair-Share (TPS). *Griya Journal of Mathematics Education and Application*, 3(1), 141–158. <https://doi.org/10.29303/griya.v3i1.292>
- Juniari, L. S., Dhana, I. G. M. K., & Jayantara, I. K. P. D. (2026). Joyful Learning : Analisis Transformasi Pembelajaran Konvensional Melalui Gamifikasi Nusapoly Bagi Siswa Kelas V di SD No.3 Kutuh. *Satya Sastraharing: Jurnal Manajemen*, 10(1), 72–93. <https://doi.org/10.33363/satya-sastraharing.v10i1.1935>
- Kassymova, G. K., Talgatov, Y. K., Arpentieva, M. R., Abishev, A. R., & Menshikov, P. V. (2025). Artificial Intelligence in the Development of the Theory and Practices of Self-Directed Learning. *Multidisciplinary Journal of Thought and Research*, 1(3), 66–79. <https://mujoter.intischolar.id/index.php/mujoter/article/view/19>
- Kurniawan, M. R., Awaliyah, S., & Santosa, T. (2026). Implementasi Model Cooperative Learning dengan Teknik Think Pair Square pada Keaktifan Murid Kelas X SMA. *SWARNA: Jurnal Pengabdian Kepada Masyarakat*, 5(7), 1770–1788. <https://doi.org/10.55681/swarna.v5i7.3447>
- Lase, A. (2016). Hubungan Antara Motivasi Belajar Dengan Disiplin Belajar Siswa. *Journal for Lesson and Learning Studies*, 2(1). <https://doi.org/10.23887/jlls.v2i1.17317>
- Lindayana, L. (2026). Eksplorasi Strategi Scaffolding Guru Dalam Mengatasi Hambatan Membaca Inferensial Pada Siswa Madrasah Ibtidaiyah Nurul

- Yakin NW Punikasih. *Jurnal Ilmiah Profesi Pendidikan*, 11(2), 1442–1451. <https://doi.org/10.29303/jipp.v11i2.5000>
- Lumanauw, A. S., Winandar, R., & Wulandari, Y. (2025). Implementasi Model Pembelajaran Kooperatif Dalam Meningkatkan Keaktifan Dan Hasil Belajar Peserta Didik. *Zenodo (CERN European Organization for Nuclear Research)*, 1(2), 76–89. <https://doi.org/10.0111/afkar.v1i2.70>
- Masyhudah, M. S., & Widyasari, C. (2024). Penerapan Model Pembelajaran Cooperative Learning Tipe STAD untuk Meningkatkan Hasil Belajar Matematika Siswa Kelas V. *Ainara Journal (Jurnal Penelitian Dan PKM Bidang Ilmu Pendidikan)*, 5(4), 526–532. <https://doi.org/10.54371/ainj.v5i4.655>
- Muhaimin, A., & Amir MZ, Z. (2020). Pengaruh Model Pembelajaran Missouri Mathematics Project Terhadap Kemampuan Pemecahan Masalah Matematis Ditinjau Dari Kemampuan Verbal. *AKSIOMA: Jurnal Program Studi Pendidikan Matematika*, 9(4), 1148–1158. <https://doi.org/10.24127/ajpm.v9i4.3185>
- Mumtazah, M. A. N. (2025). Integration of Science and Qur'anic Education: A Solution to Heal Inner Wounds in the Modern Era. *Spiritus: Religious Studies and Education Journal*, 3(1), 1–11. <https://doi.org/10.59923/spiritus.v3i1.426>
- Pioke, I., Rivai, S., Pakaya, W. C., & Abdullatif, N. (2022). Hubungan Antara Kemampuan Awal Matematika Dengan Hasil Belajar Siswa Kelas 5 SDN 08 Paguyaman. *Aksara: Jurnal Ilmu Pendidikan Nonformal*, 8(2), 803. <https://doi.org/10.37905/aksara.8.2.803-808.2022>
- Ramadhanti, S. L., Konjin, H. C. T., Wadud, A. J., Nadlir, N., & Wakhidah, N. (2025). Model Pembelajaran Kooperatif Tipe Jigsaw dalam Pembelajaran IPA di Sekolah Dasar. *Journal of Instructional and Development Researches*, 5(2), 192–201. <https://doi.org/10.53621/jider.v5i2.452>
- Rukmini, A. (2020). Model Kooperatif Tipe Think Pair Share (TPS) Dalam Pembelajaran Pkn SD. *Workshop Nasional Penguatan Kompetensi Guru Sekolah Dasar SHEs: Conference Series*, 3(3), 2176–2181. <https://doi.org/10.20961/shes.v3i3.57088>
- Saputra, M. I., Al Faiz, M. I., & Gusmaneli, G. (2024). Pengembangan Keterampilan Sosial dan Akademik Siswa Melalui Strategi Pembelajaran Kooperatif. *JISPENDIORA Jurnal Ilmu Sosial Pendidikan Dan Humaniora*, 3(2), 62–70. <https://doi.org/10.56910/jispendiora.v3i2.1471>
- Sembiring, G., Siagian, K., Rajagukguk, N., Arwita, W., & Aswarina, N. (2025). Pengaruh Model Problem Based Learning Terhadap Peningkatan Aktivitas dan Minat Belajar Siswa pada Materi Komponen Ekosistem dan Interaksinya di Kelas X Sma Negeri 7 Medan. *Jma*, 3(4), 1–22. <https://doi.org/10.62281/3e9f43>
- Shihab, M. Q. (2018). *Islam yang saya fahami. keragaman itu rahmat*. Lentera Hati Group.
- Sidiq, M. A., Pahrudin, A., Jatmiko, A., Syafe, I., & Koderi, K. (2025). Transformasi Pendidikan Abad ke-21 melalui Kurikulum Berbasis Kompetensi: Sinergi antara Peningkatan Mutu dan Pembentukan Generasi Inovatif. *Didaktika Dwija Indria*, 13(5)(5), 764–771. <https://doi.org/10.20961/ddi.v13i5.110333>
- Sudjana, N., & Rivai, A. (2007). *Teknologi Pengajaran Nasional*. Sinar Baru Algensindo.
- Sugiyono. (2022). *Metode Penelitian Kualitatif*. Alfabeta.

- Susanti, R., & Sholihat, N. (2025). Efektivitas Model Pembelajaran Kooperatif Tipe Think Pair Share terhadap Hasil Belajar Siswa SMP. *JIMU: Jurnal Ilmiah Multidisipliner*, 3(04), 2486–2494. <https://doi.org/10.70294/jimu.v3i04.1048>
- Susanto, G. B., & Anggresta, V. (2024). Pengaruh Lingkungan Belajar Dan Tingkat Pemahaman Siswa Terhadap Hasil Belajar. *Research and Development Journal of Education*, 10(2), 994. <https://doi.org/10.30998/rdje.v10i2.25019>
- Thuwaiba, T., & Salaeh, I. M. Y. (2025). Challenges in Quranic Memorization for Learners with Disabilities. *Journal of Theory and Research Memorization Quran*, 1(2), 104–117. <https://doi.org/10.67055/d925ng61>
- Trianto. (2014). Mendesain Model Pembelajaran Inovatif-Progresif. Konsep Strategi, dan Implementasinya dalam KTSP. In *Jakarta: Bumi Aksara*. Bumi Aksara.
- Wulan, M. A. C., Damayanti, M., Widodo, S. T., & Lestari, Y. P. (2026). Model Kooperatif Think Pair Share dan Jigsaw untuk Meningkatkan Hasil Belajar Pendidikan Pancasila Kelas IV SD. *Journal of Science and Education Research*, 5(1), 60–67. <https://doi.org/10.62759/jsr.v5i1.360>
- Yana, A. D., & Nurhaliza, K. (2024). Peningkatan Percaya Diri Menggunakan Model Pembelajaran Kooperatif Tipe Think Pair Share Dalam Pembelajaran Pendidikan Pancasila Pada Siswa Sekolah Dasar. *Cokroaminoto Journal of Primary Education*, 7(2), 373–384. <https://doi.org/10.30605/cjpe.722024.4639>
- Yani, J., Maharani, I., Dalimunthe, N. F., Pulungan, F. K., & Fakhri, N. (2024). Peningkatan Kemampuan Berfikir Kritis dan Pemecahan Masalah Matematis Siswa antara Siswa yang Diberi Pelajaran Kooperatif Tipe TPS Square dan TPS Share. *FARABI: Jurnal Matematika Dan Pendidikan Matematika*, 7(2), 265–270. <https://doi.org/10.47662/farabi.v7i2.773>
- Zuairiyah, Z., Tsaniyah, R. I., Hidayah, N., Saputri, I. A., Sahara, M. L., & Achmad, S. (2025). Rekonstruksi Kurikulum Pendidikan Islam Adaptif: Integrasi Tauhid, Teknologi dan Sains untuk Mewujudkan Generasi Qur'ani Modern. *Journal of Instructional and Development Researches*, 5(4), 370–383. <https://doi.org/10.53621/jider.v5i4.554>

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