Research Paper
Journal of Comprehensive Education
Vol. 01, No. 02, January 2026. E-ISSN: 3109-5887

The Effect of the Guided Inquiry Model on Improving Students' Learning Outcomes in Islamic Religious Education

Wildatul Musyarofah[1], Nurhasin B[2], Almaydza Pratama Abnisa[3]
[1]Sekolah Tinggi Pesantren Darunna'im Rangkasbitung Lebak Banten, Indoensia; wildatulM@gmail.com
[2]Sekolah Tinggi Ilmu Dakwah Dan Komonikasi Islam Al-Mardliyyah Pamekasan, Indonesia; nurhasinbahrudin@gmail.com *(Coresponden)
[3]Institut Asy-Syukriyyah Tangerang Banten, Indonesia; almaydzapratamaabnisa@gmail.com

ABSTRACT

Background	Islamic Religious Education at junior high school shapes students' character, yet learning remains dominated by conventional lectures, causing low understanding and achievement. Junior High School 2 Legok shows students fail mastery criteria. Guided Inquiry promotes learning through exploration and experience.
Purpose	This study was conducted to determine the effect of the Guided Inquiry model on students' learning outcomes in Islamic Religious Education at State Junior High School 2 Legok.
Research Methodology	This study used quantitative research with a correlational approach. Data were collected using questionnaires and analyzed through validity, reliability, and data normality tests. Hypothesis testing employed analysis of variance and t tests to determine relationships between variables accurately and objectively.
Result	The study examined the effect of the Guided Inquiry model on Islamic Religious Education learning outcomes at Junior High School 02 Legok with 77 students. Simple regression showed Fcount 22.284 exceeded Ftable 3.12, significance 0.000. The model influenced outcomes by 39.2 percent, while 60.8 percent was affected by other variables.
Conclusion	The Guided Inquiry model has a significant effect on improving students' learning outcomes in Islamic Religious Education, as statistically proven, and is therefore appropriate to enhance instructional quality and academic achievement.
Keywords	Guided Inquiry, Learning Outcomes, Islamic Religious Education

INTRODUCTION

Islamic Religious Education plays a crucial role in shaping students' identity and character. Through the learning of Islamic Religious Education, students can understand Islamic teachings while applying them in their daily lives, thereby fostering a strong religious identity (Wahab et al., 2019). The implementation of Islamic values through a compassionate approach enables the development of a religious character through learning methods that are gentle and attentive (Hidayat and Syahidin, 2019). Furthermore, the integration of Islamic religious education with other disciplines, such as science, technology, arts, and culture, creates a collaborative and contextual learning ecosystem that is relevant to the needs of students in the modern era (Masdin et al., 2025). Problem-Based Learning also encourages students to think critically when addressing global issues, including population, planet, and economy, while supporting the achievement of the Sustainable Development Goals (Nugraha et al., 2024). This approach strengthens students' ability to internalize Islamic values while remaining adaptive to the changing times.

In the era of globalization and modernization, Islamic religious education faces significant challenges because the rapid flow of information and cultural influences may weaken religious values (Badri and Malik, 2024). Therefore, holistic-integrative curriculum innovation is essential, in which religious knowledge is combined with general knowledge so that students can develop both academic and spiritual competencies (Shalehn et al., 2024). The approach of religious moderation through deradicalization programs has proven effective in fostering tolerance and nationalism among university students (Solechan et al., 2024). Moreover, preparing students for the future through the use of information and communication technology becomes a critical strategy to ensure that Islamic education remains relevant, adaptive, and capable of meeting global demands (Tan and Hasman, 2024). Through the combination of these strategies, Islamic Religious Education not only cultivates a religious character but also prepares students to become critical, creative, and responsible individuals.

Learning outcomes in Islamic Religious Education indicate that the application of various learning models and approaches has a significant impact on student achievement and understanding. The Value Clarification Approach successfully increased the average student score from 52.8 in the pretest to 84.4 in the post-test, reflecting an improvement of 31.6 points and demonstrating enhanced spiritual and social attitudes (Khadijah et al., 2019). The integration of Islamic values into the teaching of science and technology makes the material more relevant to students' daily experiences as Muslims, rendering the learning process more meaningful and motivating (Wulan et al., 2021; Purwati et al., 2018). Social support and self-regulated learning also contribute to motivation and learning outcomes, although their influence is limited, indicating the presence of other factors affecting student success (Solichin et al., 2021). Additionally, the application of the Ulû al-Ilm model based on the Qur'an has been proven to enhance learning outcomes across cognitive, affective, psychomotor, ethical, social, and spiritual domains, making learning more comprehensive and integrated (Budiyanti et al., 2024).

The Guided Inquiry Learning model has been proven to improve student learning outcomes in Islamic Religious Education. Research involving tenth-grade students shows that the implementation of Guided Inquiry Learning significantly affects academic performance, as evidenced by increased test scores analyzed using one-way analysis of variance (Suyitno et al., 2025). Moreover, this model effectively enhances critical thinking skills, which are essential competencies in the twenty-first century. Through this approach, students are encouraged to explore the material in depth, resulting in improved conceptual understanding and analytical abilities (Triyono and Suparman, 2019; Diana et al., 2023). Quasi-experimental research designs with pre-test and post-test control groups reinforce these findings, for example, in static fluid materials, Guided Inquiry Learning has been shown to effectively increase student achievement (Kusuma et al., 2019). Furthermore, this

model can be integrated with religious character values to develop narrative writing skills, making the learning process more holistic and meaningful for students (Mulyani et al., 2025).

Based on the results of the first semester examination of seventh-grade Islamic Religious Education at State Junior High School 2 Legok, it was found that the lowest student score was 60, whereas the minimum completeness criterion set by the school was 75. These data indicate that the majority of students still experience difficulties in understanding the material delivered by the teacher, so the learning objectives have not been optimally achieved. Out of all students, only ten were able to achieve the minimum completeness criterion, while seventeen others did not meet the standard. This condition indicates the need for improvement in the learning process, both in terms of the methods and models used. Islamic Religious Education is expected not only to focus on content delivery but also to develop process skills, conceptual understanding, and the ability to relate the material to current societal issues, thereby fostering active student curiosity.

One effort to address this problem is the implementation of the Guided Inquiry Learning model. This model is considered capable of encouraging students to be more active in the learning process through exploration, question posing, and independent concept development under teacher guidance. Guided Inquiry also helps students connect new concepts with prior knowledge, making learning more meaningful. Therefore, the researcher is interested in investigating more deeply the influence of the Guided Inquiry Learning model on improving student learning outcomes in Islamic Religious Education at State Junior High School 2 Legok. This study is expected to contribute theoretically to the development of Islamic Religious Education learning models and provide practical benefits for educators and students in enhancing the quality of learning and achieving more optimal learning outcomes.

RESEARCH METHODOLOGY

This research employed a quantitative approach with a descriptive correlational research design. The study was conducted at State Junior High School 2 Legok during the even semester of the 2024/2025 academic year, specifically from March to May 2025. The selection of the research site was based on the existence of problems related to student learning outcomes in the Islamic Religious Education subject, as well as its relevance to the research title, which examines the effect of the Guided Inquiry Learning model on student learning outcomes.

The population of this study consisted of all students at State Junior High School 2 Legok, totaling seventy-seven students. Considering that the population consisted of fewer than one hundred students, the study included the entire population. Data collection techniques included questionnaires. The primary research instrument was a closed-ended questionnaire with a Likert scale, used to measure the implementation of the Guided Inquiry Learning model as the independent variable (X) and student learning outcomes in Islamic Religious Education as the dependent variable (Y).

Validity testing was conducted to determine the accuracy of questionnaire items in measuring the research variables, using the Pearson Product-Moment Correlation formula. An item was considered valid if the calculated correlation coefficient (r) was greater than or equal to the critical r value at a significance level of five percent. Reliability testing was subsequently carried out to examine the consistency of the instrument using the Cronbach's Alpha formula. An instrument was considered reliable if the Cronbach's Alpha value was greater than or equal to 0.60.

Normality testing was conducted to examine the distribution of the data using the Kolmogorov–Smirnov test. Data were considered normally distributed if the significance value was greater than 0.05. Linearity testing was performed to determine the linear relationship between variables X and Y using Curve Estimation, with a significance criterion of less than or equal to 0.05. Furthermore, correlation testing was conducted to determine

the relationship between variables, with a relationship considered significant if the significance value was less than 0.05. The research instruments are detailed as follows:

Table 1. Research Instruments

Variable	Aspect	Indicator
Guided Inquiry Learning Model	Teacher guidance and instructions in inquiry	Understanding clear directions and guidance provided by the teacher
	Active involvement in problem identification	Participating in observation and formulation of problems
	Data and information processing	Collecting and analyzing data under teacher guidance
	Drawing conclusions and presenting results	Concluding and presenting the results of inquiry
Learning Outcomes	Cognitive (Knowledge)	Understanding the concepts of Islamic teachings presented
	Cognitive (Knowledge)	Recalling and explaining evidence from the Qur'an and Hadith
	Affective (Attitude)	Demonstrating a positive attitude towards Islamic teachings and practices
	Psychomotor (Action)	Performing worship and applying Islamic teachings in daily life

RESULT AND DISCUSSION

Data Validity

Table 2. Validity of Guided Inquiry Model

No.	Item	r calculated	r table	Validity
Item 1	0.396	0.2241	Valid	Used
Item 2	0.309	0.2241	Valid	Used
Item 3	0.521	0.2241	Valid	Used
Item 4	0.185	0.2241	Not Valid	Not Used
Item 5	0.397	0.2241	Valid	Used
Item 6	0.333	0.2241	Valid	Used
Item 7	0.507	0.2241	Valid	Used
Item 8	0.595	0.2241	Valid	Used
Item 9	0.334	0.2241	Valid	Used
Item 10	0.260	0.2241	Valid	Used
Item 11	0.253	0.2241	Valid	Used
Item 12	0.197	0.2241	Not Valid	Not Used
Item 13	0.384	0.2241	Valid	Used
Item 14	0.663	0.2241	Valid	Used
Item 15	0.451	0.2241	Valid	Used
Item 16	0.259	0.2241	Valid	Used
Item 17	0.334	0.2241	Valid	Used
Item 18	0.383	0.2241	Valid	Used
Item 19	0.247	0.2241	Valid	Used

Item 20	0.467	0.2241	Valid	Used
Item 21	0.315	0.2241	Valid	Used
Item 22	0.622	0.2241	Valid	Used
Item 23	0.545	0.2241	Valid	Used
Item 24	0.589	0.2241	Valid	Used
Item 25	0.421	0.2241	Valid	Used
Item 26	0.433	0.2241	Valid	Used
Item 27	0.434	0.2241	Valid	Used
Item 28	0.372	0.2241	Valid	Used
Item 29	0.585	0.2241	Valid	Used
Item 30	0.543	0.2241	Valid	Used
Item 31	0.726	0.2241	Valid	Used
Item 32	0.665	0.2241	Valid	Used

Table 3. Validity of Student Learning Outcomes in Islamic Religious Education Subject

No.	Item	r calculated	r table	Validity
Item 1	0.252	0.2241	Valid	Used
Item 2	0.577	0.2241	Valid	Used
Item 3	0.288	0.2241	Valid	Used
Item 4	0.362	0.2241	Valid	Used
Item 5	0.473	0.2241	Valid	Used
Item 6	0.593	0.2241	Valid	Used
Item 7	0.319	0.2241	Valid	Used
Item 8	0.301	0.2241	Valid	Used
Item 9	0.234	0.2241	Valid	Used
Item 10	0.267	0.2241	Valid	Used
Item 11	0.292	0.2241	Valid	Used
Item 12	0.408	0.2241	Valid	Used
Item 13	0.287	0.2241	Valid	Used
Item 14	0.486	0.2241	Valid	Used
Item 15	0.444	0.2241	Valid	Used
Item 16	0.230	0.2241	Valid	Used
Item 17	0.410	0.2241	Valid	Used
Item 18	0.344	0.2241	Valid	Used
Item 19	0.479	0.2241	Valid	Used
Item 20	-0.112	0.2241	Not Valid	Not Used
Item 21	0.439	0.2241	Valid	Used
Item 22	-0.294	0.2241	Not Valid	Not Used
Item 23	0.366	0.2241	Valid	Used
Item 24	0.289	0.2241	Valid	Used
Item 25	0.308	0.2241	Valid	Used
Item 26	0.288	0.2241	Valid	Used
Item 27	0.479	0.2241	Valid	Used
Item 28	0.449	0.2241	Valid	Used

Item 29	0.603	0.2241	Valid	Used
Item 30	0.255	0.2241	Valid	Used
Item 31	0.593	0.2241	Valid	Used
Item 32	0.358	0.2241	Valid	Used

Data Reliability

Table 4. Reliability of Guided Inquiry Model Variable

Cronbach's Alpha	N of Items
0.851	30

Table 5. Reliability of Student Learning Outcomes Variable

Cronbach's Alpha	N of Items
0.587	30

Data Description

Table 6. Descriptive Statistics of Guided Inquiry Model and Student Learning Outcomes

	Guided Inquiry Model	Student Learning Outcomes
N Valid	77	77
Missing	0	0
Mean	122.61	109.29
Std. Error of Mean	1.439	1.072
Median	122.00	109.00
Mode	122	109
Std. Deviation	12.629	9.403
Variance	159.504	88.417
Range	70	47
Minimum	88	89
Maximum	158	136
Sum	9441	8415

The range of respondents' scores for the Guided Inquiry Model variable was obtained from 77 respondents, with the lowest score of 88 and the highest score of 158, and a total overall score of 9,441. Descriptive statistical calculations showed an average score (mean) of 122.61, a median of 122.00, a mode of 122, a variance of 159.504, and a standard deviation of 12.629. Compared to the ideal maximum score of 160, the respondents' average score of 122.61 indicates an achievement of 76.63 percent. This result indicates that the level of achievement in the implementation of the Guided Inquiry Model among students is categorized as good, showing that most students are able to follow the guided inquiry process effectively.

The range of respondents' scores regarding the improvement of student learning outcomes was obtained from 77 respondents, with the lowest score of 89 and the highest score of 136, and a total overall score of 8,415. Descriptive statistical analysis showed an average score (mean) of 109.29, a median of 109.00, a mode of 109, a variance of 88.417, and a standard deviation of 9.403. Compared to the ideal maximum score of 160, the respondents' average score of 109.29 indicates an achievement of 68.30 percent. Based on this calculation, the level of achievement in improving student learning outcomes is categorized as good, indicating

that most students showed significant progress in understanding and mastering Islamic Religious Education material after the implementation of the learning model.

Data Normality

Table 7. Normality Test

	Guided Inquiry Model	Student Learning Improvement
N	77	77
Normal Parametersa		
Mean	122.61	109.29
Std. Deviation	12.629	9.403
Most Extreme Differences		
Absolute	0.054	0.087
Positive	0.054	0.087
Negative	-0.045	-0.066
Kolmogorov-Smirnov Z	0.471	0.766
Asymp. Sig. (2-tailed)	0.980	0.601

The normality test of the data was conducted to determine whether the obtained data were normally distributed. In this study, the normality test was performed using SPSS. Based on the One-Sample Kolmogorov-Smirnov test to examine the normality of the dependent variables, in this case the Guided Inquiry Model, the critical Kolmogorov-Smirnov value for 77 respondents was 0.150 at a 0.05 confidence level. Thus, the research results obtained a significance value of 0.980 > 0.150 for variable X, meaning that the data for variable X are normally distributed, and 0.601 > 0.150 for variable Y, meaning that the data for variable Y are normally distributed.

Data Linearity

Table 8. Linearity Test

Source	Sum of Squares	df	Mean Square	F	Sig.
Model (Guided Inquiry)	4467.881	37	120.754	2.091	.012
Linearity	1539.203	1	1539.203	26.658	.000
Deviation from Linearity	2928.678	36	81.352	1.409	.148
Within Groups (Error)	2251.833	39	57.739		
Total	6719.714	76			

With the Fhit value < Ftab 1.409 < 3.12 and from the SPSS output above, the Deviation From Linearity significance value of 0.148 > 0.05 for the effect of the Guided Inquiry Model means the null hypothesis is accepted, indicating that the sample comes from a population that has a linear regression pattern.

Research Hypothesis Test

1. Correlation Test

Table 9. Correlation Test Result

Variable	Guided Inquiry	Student Learning Improvement
Guided Inquiry	1	0.479**
Sig. (2-tailed)	–	0.000
N	77	77
Student Learning Improvement	0.479**	1

	Sig. (2-tailed)	0.000	–
	N	77	77

Based on the correlation table above, it can be concluded that a significant value was obtained, sig. 0.000 < 0.05, indicating that there is a correlation or a relationship between the Guided Inquiry model and the improvement of student learning outcomes, and vice versa. The Pearson correlation value obtained is 0.479, which is greater than the critical r (Rtabel) for a sample of 77, which is 0.254. Thus, the variable X (Guided Inquiry Model) has a relationship with variable Y (Student Learning Improvement), because the calculated r (Rhitung) 0.414 > Rtabel 0.220. Therefore, the research hypothesis (Ho) is rejected, and the alternative hypothesis (Ha) is accepted.

2. Simple Linear Regression Test

Table 10. ANOVAab

Model	Sum of Squares	df	Mean Square	F	Sig.
Regression	1539.203	1	1539.203	22.284	.000
Residual	5180.511	75	69.073		
Total	6719.714	76			

a Predictor: Guided Inquiry Model

b Dependent variable: Student Learning Improvement

Based on the results above, the calculated F (Fhitung) = 22.284, whereas the table F (Ftabel) = 3.12 with a significance value = 0.000 < 0.05. The criterion for rejecting Ho is Fhitung > Ftabel at α = 0.05 (5%), with 22.284 > 3.12. Therefore, the results of this simple linear regression test indicate that Ha, stating that the Guided Inquiry Model has a positive effect on the improvement of student learning outcomes at State Junior High School Negeri 2 Legok, is accepted, and Ho is rejected.

3. Coefficient of Determination

Table 11. Coefficient Result

Model	R	R^2	Adjusted R^2	Std. Error of Estimate
1	.479	.392	.219	8.311

Predictor: Guided Inquiry Model

Dependent variable: Student Learning Improvement

The table above shows that the correlation value (R) is 0.479, and the coefficient of determination (R^2) is 0.392, which means that the influence of the independent variable (Guided Inquiry Model) on the dependent variable (Student Learning Improvement) is 39.2%.

Based on the correlation test, the Pearson r value obtained is 0.479 with significance 0.000 < 0.05, indicating a significant positive relationship between the Guided Inquiry Model (X) and the improvement of student learning outcomes (Y). The r value is greater than Rtabel (0.479 > 0.254), so the alternative hypothesis is accepted. The simple linear regression test shows Fhitung = 22.284 > Ftabel = 3.12 with significance 0.000 < 0.05, indicating that Guided Inquiry has a positive effect on learning improvement. The coefficient of determination (R^2) of 0.392 explains that 39.2% of the variation in student learning outcomes can be explained by the implementation of the Guided Inquiry Model, while the remaining 60.8% is influenced by other factors. The implementation of GIL is also supported by the development of validated e-student worksheets, which are effective in optimizing students' problem-solving abilities and can serve as a reference for teachers (Adiyani et al., 2020). This model encourages the formation of collaborative inquiry communities in schools, aligning

academic processes with curriculum standards and supporting students' intellectual growth (Edwards, 2022). The shift from teacher-centered learning to student-centered learning through GIL has been proven to improve learning outcomes, even though traditional lecture approaches in Islamic education often pose challenges (Omar, 2022). Moreover, GIL addresses the need for contextual learning by involving students in real-world problem-solving and critical thinking activities, making learning more relevant and engaging (Hidayat & Syahidin, 2019; Rosfiani et al., 2020). Therefore, this model not only develops academic competencies but also students' character and critical thinking skills in an integrated manner.

The Guided Inquiry learning model has a significant advantage in improving students' critical thinking abilities. Various studies show that systematic application of this model can significantly increase critical thinking scores (Nisa et al., 2018). The use of scaffolding strategies in Guided Inquiry helps students gradually develop their critical thinking skills, enabling them to analyze, evaluate, and draw conclusions from various information (Makmur et al., 2019). In addition, Guided Inquiry has been proven effective in stimulating students' mathematical problem-solving skills through specially designed electronic worksheets (Adiyani et al., 2020). Not only in the cognitive context, this model also supports improvements in science process skills and scientific attitudes, encouraging students to be objective, careful, and systematic during experiments (Tornee et al., 2017). The application of Guided Inquiry in various subjects, including Islamic Religious Education, consistently shows improved learning outcomes (Suyitno et al., 2025), confirming the effectiveness of this model in a broad academic context.

In addition to enhancing critical thinking and problem-solving skills, Guided Inquiry also supports the development of students' social skills and learning motivation. This model encourages collaboration, communication, and empathy, allowing students to work together effectively in completing tasks (Seprie et al., 2025; Malenda et al., 2024). Interactive and immersive learning experiences also increase students' intrinsic motivation, making them more enthusiastic in the learning process (Cheng, 2022). Guided Inquiry can be integrated with other approaches, such as SETS (Science, Environment, Technology, and Society), to further enhance critical thinking skills and the relevance of learning in social and technological contexts (Diana et al., 2023). The flexibility of this model allows its application across various education levels, from primary to higher education, making it an adaptive and effective strategy to develop students' academic and social competencies comprehensively (Noperman et al., 2019).

CONCLUSION

The implementation of the Guided Inquiry learning model provides a positive contribution to the improvement of student learning outcomes in Islamic Religious Education at State Junior High School Negeri 2 Legok. The Guided Inquiry model shows a normal data distribution and very strong reliability, with an achievement level categorized as good, so it can be used as a reference for an effective learning process. Likewise, the improvement in student learning outcomes also shows a normal distribution, high reliability, and achievement categorized as good, indicating that students respond well to learning and demonstrate significant competence development. The simple linear regression analysis shows that Guided Inquiry has a positive effect on the improvement of student learning outcomes, where this model is able to explain part of the variability in learning outcomes, while the rest is influenced by other factors. In other words, the more optimal the implementation of Guided Inquiry, the greater the likelihood that students will achieve significant learning improvements. This confirms the research hypothesis that the Guided Inquiry model is an effective strategy in promoting student understanding, critical thinking skills, and independent learning. Based on this foundation, students are expected to actively utilize this model, teachers and homeroom teachers are advised to apply it consistently, and future researchers can further develop this study to strengthen the understanding of the

effectiveness of Guided Inquiry in the context of Islamic Religious Education learning or other subjects. The implementation of this strategy is expected to create a more participatory, in-depth, and meaningful learning experience for students.

ACKNOWLEDGEMENT

Praise and gratitude are addressed to Allah Subhanahu wa Ta'ala for His guidance and blessings, allowing the completion of this research. The researcher sincerely thanks the supervisors, school staff, and students for their support and participation. This study shows that the Guided Inquiry learning model positively affects student learning outcomes by enhancing understanding, critical thinking, and independent learning. The findings are expected to contribute to effective teaching strategies, improve academic achievement, foster religious character, and promote meaningful, participatory learning experiences. The researcher hopes this study can provide useful insights for educators and further research in education.

AUTHORS' CONTRIBUTION

Author 1	:	Conceptualization, research design, and methodology development, including planning the study framework, defining variables, and ensuring systematic data curation for accurate and reliable research execution.
Author 2	:	Contributed to methodology, data curation, investigation, validation, drafting the manuscript, project administration, and translation, ensuring proper implementation of research procedures and accuracy in reporting and presenting results.
Author 3	:	Responsible for data curation, investigation, validation, manuscript drafting, and translation, supporting the research process, verifying data integrity, and contributing to clear and accurate communication of findings.

REFERENCE

Adiyani, A. I., Suparman, S., Ibrahim, F., Marthinu, E., Hairun, Y., Abdullah, O. M. T., & Irigisa, I. (2020). Guided inquiry-based e-student worksheet design to stimulate problem solving capabilities. *Journal of Advanced Research in Dynamical and Control Systems, 12*(7 Special Issue), 1894–1903. https://doi.org/10.5373/JARDCS/V12SP7/20202302

Astuti, R. F., Susanti, E., Yusnaldi, E., Budiman, A., Arsyad, J., & Setyawan, A. (2024). How much is character education correlated with learning outcomes of Islamic Religious Education students in Indonesia: Meta-analysis study. *BIO Web of Conferences, 146*, 01087. https://doi.org/10.1051/bioconf/202414601087

Badri, L. S., & Malik, A. A. (2024). Implementation of Islamic education values in building students' religious character through an affective approach based on the Qur'an. *Jurnal Pendidikan Agama Islam, 21*(1), 217–233. https://doi.org/10.14421/jpai.v21i1.7260

Budiyanti, N., Komariah, K. S., Hermawan, W., Jenuri, & Hyangsewu, P. (2024). Impact of the Ulû al-Ilm model on six domains of student learning outcomes in Islamic Religious Education. *Jurnal Pendidikan Islam, 10*(1), 113–124. https://doi.org/10.15575/jpi.v10i1.33225

Cheng, K.-H. (2022). Teachers' perceptions of exploiting immersive virtual field trips for learning in primary education. *Journal of Research on Technology in Education, 54*(3), 438–455. https://doi.org/10.1080/15391523.2021.1876576

Diana, N., Sahania, A., Supriadi, N., Irwandani, I., Rahmayanti, H., Ichsan, I. Z., Alatas, F., & Sison, M. H. (2023). Guided-inquiry based on science, environment, technology, and society to improve critical thinking skills in

physics learning. In A. Saregar, R. Umam, M. Syazali, & F. G. Putra (Eds.), *AIP Conference Proceedings, 2595*, Article 020004. American Institute of Physics. https://doi.org/10.1063/5.0124198

Edwards, B. (2022). Guided inquiry design. *In Global Action for School Libraries: Models of Inquiry* (pp. 77–88). De Gruyter. https://doi.org/10.1515/9783110772586-008

Hidayat, T., & Syahidin. (2019). Inovasi pembelajaran pendidikan agama Islam melalui model contextual teaching and learning dalam meningkatkan taraf berpikir peserta didik. *Jurnal Pendidikan Agama Islam, 16(*2), 115–136. https://doi.org/10.14421/jpai.2019.162-01

Khadijah, S., Muslim, S., & Musnir, D. N. (2019). How to develop instructional module in secondary middle school. *International Journal of Recent Technology and Engineering, 8*(2 Special Issue 9), 369–378. https://doi.org/10.35940/ijrte.B1083.0982S919

Kusuma, R. T., Siahaan, S. M., & Andriani, N. (2019). Guided inquiry model effect on students learning outcomes in static fluid. *Journal of Physics: Conference Series, 1166*(1), 012011. https://doi.org/10.1088/1742-6596/1166/1/012011

Makmur, W., Susilo, H., & Indriwati, S. E. (2019). Implementation of guided inquiry learning with scaffolding strategy to increase critical thinking skills of biology students' based on lesson study. *Journal of Physics: Conference Series, 1227*(1), 012003. https://doi.org/10.1088/1742-6596/1227/1/012003

Malenda, R. F., Talbott, S., & Walck, S. (2024). The micro assignment guided inquiry and collaboration (MAGIC) method: A qualitative discussion of the benefits of active learning through scaffolded assignments in upper-level physics and mathematics. *Journal of College Science Teaching, 53*(3), 253–260. https://doi.org/10.1080/0047231X.2024.2338696

Masdin, Ilham, M., Mulu, B., Nurfaidah, S., & Samrin. (2025). Dynamics of interdisciplinary Islamic education learning in Indonesian high schools based on Islamic law. *Samarah, 9(*3), 1371–1393. https://doi.org/10.22373/bd9tp785

Mulyani, M., Mazid, S., Farikah, F., Riyanti, D., & Wulansari, A. (2025). Improving narrative writing skills of Madrasah Tsanawiyah students through a group inquiry learning model based on religious character values. *Jurnal Pendidikan Islam, 11*(1), 33–46. https://doi.org/10.15575/jpi.v11i1.44602

Nisa, E. K., Koestiari, T., Habibbulloh, M., & Jatmiko, B. (2018). Effectiveness of guided inquiry learning model to improve students' critical thinking skills at senior high school. *Journal of Physics: Conference Series, 997*(1), 012049. https://doi.org/10.1088/1742-6596/997/1/012049

Noperman, F., Arsyad, S., Dalifa, E. W. W., & Purwandari, E. P. (2019). Designing inquiry-based expertise sharing model to enhance graduate employability in higher education institutions. *Malaysian Online Journal of Educational Management, 8*(1), 18–38.

Nugraha, T. C., Abdel Rahim, E.-S. E. A., & Lukman, F. (2024). Integrating problem-based and flipped learning in Islamic religious education: A pathway to achieving sustainable development goals. *Jurnal Pendidikan Islam, 10*(1), 125–136. https://doi.org/10.15575/jpi.v10i1.35204

Omar, M. T. M. (2022). The effectiveness of the problem-solving strategy in enhancing the academic achievement of Islamic studies students at a Saudi college. *Journal of Education and e-Learning Research, 9*(3), 129–135. https://doi.org/10.20448/jeelr.v9i3.4101

Purwati, N., Zubaidah, S., Corebima, A. D., & Mahanal, S. (2018). Increasing Islamic Junior High School students' learning outcomes through integration of science learning and Islamic values. *International Journal of Instruction, 11*(4), 841–854. https://doi.org/10.12973/iji.2018.11453a

Rosfiani, O., Hermawan, C. M., Sahal, A. L., & Mawartika, N. F. (2020). Inquiry: A learning model to improve the learning outcomes of character. *International Journal of Scientific and Technology Research, 9*(3), 4367–4371.

Seprie, S., Wuryandani, W., & Muthmainah, M. (2025). Transforming primary education: Balancing social skills and academic achievement through global inquiry-based learning models. *Frontiers in Education, 10,* 1512274. https://doi.org/10.3389/feduc.2025.1512274

Shaleh, M., Tobroni, T., Mundir, M., & Umiarso, U. (2024). Development of a holistic-integrative Islamic religious education curriculum in an integrated Islamic school. *Eurasian Journal of Educational Research, 2024*(113), 227–241. https://doi.org/10.14689/ejer.2024.113.13

Solechan, A., Zuhdi, M. L., & Syauqillah, M. (2024). The influence of Islamic religious education based on religious moderation and national defence on the nationalism of students. Journal of Ecohumanism, 3(6), 628–636. https://doi.org/10.62754/joe.v3i6.4031

Solichin, M. M., Muhlis, A., & Ferdiant, A. G. (2021). Learning motivation as intervening in the influence of social support and self regulated learning on learning outcome. *International Journal of Instruction, 14*(3), 945–964. https://doi.org/10.29333/iji.2021.14355a

Suparman, S., & Triyono, A. (2019). Inquiry-based worksheet design to improve critical thinking of students in Indonesia. *International Journal of Scientific and Technology Research, 8*(10), 1183–1187.

Suyitno, S., Dalhari, D., Supriyono, S., & Chotimah, C. (2025). Guided inquiry vs. conventional methods: Shaping learning outcomes in Islamic religious education. *International Research Journal of Multidisciplinary Scope, 6*(1), 552–559. https://doi.org/10.47857/irjms.2025.v06i01.02275

Tan, C., & Hasman, P. N. B. (2024). Future-readiness and Islamic education perspectives from Singapore. *Journal of Education in Muslim Societies, 6*(1), 109–129. https://doi.org/10.2979/jems.00018

Tornee, N., Bunterm, T., & Tang, K. N. (2017). The impacts of inquiry-based learning model on teaching science subject: A case study in Thailand. *Turkish Online Journal of Educational Technology, 2017*(December Special Issue INTE), 395–402.

Wahab, R. B. H. A., Ahmad, S. B., & Owoyemi, M. Y. (2019). The impact of religious education subjects on the formation of Muslim girls' identity: A comparative study of girls' secondary school in Kedah, Malaysia and Leeds, Britain. *Journal of Social Sciences Research, 5*(3), 665–675. https://doi.org/10.32861/jssr.53.665.675

Wulan, E. R., Gunawan, H., Fauziah, W., & Kratz, F. (2021). Integration of science, technology, and Islamic values to enhance expected learning outcomes in French higher education. *Jurnal Pendidikan Islam, 7*(1), 95–108. https://doi.org/10.15575/jpi.v7i1.12765