ETDC Indonesian Journal of Research and Educational Review
Volume 5, No. 1, 2025, pp 416 - 430

e–ISSN 2809-3682
p–ISSN 2809-7505

https://doi.org/10.51574/ijrer.v5i1.4291

Snowball Throwing Instructional Model: Middle School Students' Learning Interest in Islamic Education

Siti Mutmainah[1], Deden Makbuloh[2], M. Indra Saputra[3]
[1, 2, 3] Universitas Islam Negeri Raden Intan Lampung, Indonesia

Article Info

Article history:

Received November 01, 2025
Accepted December 13, 2025
Published December 27, 2025

Keywords:

Interactive Learning;
Islamic Religious Education;
Learning Interest;
Middle School;
Snowball Throwing.

ABSTRACT

This study intends to determine the effect of the snowball-throwing learning model on students' learning interest in Islamic religious education at the middle school level. The initial problem was low student interest and attention due to monotonous learning methods. This research employed a quantitative approach with a post-test-only control group type of quasi-experimental design. The method of sampling involved one experimental class using the Snowball Throwing model and one control class using conventional methods at Middle School 1 Waway Karya. The instrument used was a learning interest questionnaire that had been tested for validity and reliability. Data analysis was conducted through normality tests, homogeneity tests, and t-tests. The results indicated that the data were normally distributed and homogeneous. The t-test yielded a significance value of 0.008, which is less than 0.05 ($p < 0.05$), indicating a significant difference in learning interest between the two groups. Students who learned using the snowball-throwing model had a higher learning interest compared to students who learned with conventional methods. The activity of making and throwing questions in the form of paper balls was proven to be able to increase students' interest and attention in learning. The contribution of this research is to offer the snowball throwing model as an effective alternative learning strategy to increase students' learning interest in Islamic religious education subjects.

Corresponding Author:

Siti Mutmainah,
Universitas Islam Negeri Raden Intan Lampung, Indonesia
Email: sm0909144@gmail.com

1. INTRODUCTION

Education is a vital component of human existence, as it contributes to the enhancement of national intellect (Ahya & Kholisna, 2022). Education, in its most comprehensive definition, includes the lifelong learning process in both formal and informal contexts, shaping an individual's knowledge, attitudes, and conduct (Pristiwanti et al., 2022). Consequently, initiatives to enhance educational quality are essential (Aprilliani et al., 2024; Bloch et al., 2021). A way to attain a wonderful education is by choosing a suitable learning model that fosters an engaging and joyful educational atmosphere.

An effective learning model can facilitate students' comprehension of the topic, promote active engagement, and enhance their drive to learn (Sartania et al., 2022). Interactive learning is considered an excellent method for enhancing student engagement and interest (Aulia et al., 2024; Hasanah & Swondo, 2021). An excellent model is Snowball Throwing, when students actively toss and respond to questions within groups. This approach enhances comprehension while cultivating excitement, bravery, and a collaborative spirit, thereby augmenting interest in learning (Islamiati et al., 2024; Siagian et al., 2025).

The Snowball Throwing Learning Model is a collaborative approach that promotes active student engagement via group activities, question formulation, and dialogue (Wianto & Firdaus, 2025). This model promotes accountability, analytical reasoning, and the audacity to articulate viewpoints. Trianto stated that this approach fosters an engaging and stimulating learning atmosphere, which enhances student engagement and academic performance (Hasniati et al., 2025; Isro Ningsih et al., 2020; Kusumadewi & Qomariyah, 2020; Masria, 2021; Meliyati, 2021). The snowball throwing methodology enhances student engagement, creativity, and autonomy. This strategy promotes critical thinking, dialogue, and the articulation of viewpoints, thereby enhancing student comprehension and educational results (Ambarsari et al., 2024; Hamidah, 2023; Ofridaningsih et al., 2022).

The snowball throwing methodology promotes active student engagement via group conversations and interactions, facilitating the exchange of understanding, inquiry, and critical responses to the content (Agustin & Gumala, 2025; Kurniati et al., 2021; Risti et al., 2025). Snowball throwing is an educational strategy that cultivates students' leadership capabilities and inquiry skills via the activity of creating and tossing snowballs. The objective is to educate pupils to effectively communicate and receive messages within a group (Idriastuti, 2021; Maisa & Farida, 2021; Mariam et al., 2024; Polotoy, 2022). In contrast to the Talking Stick method, Snowball Throwing involves writing questions on paper, crumpling them into balls, and thereafter tossing them to other students (Husna et al., 2020; Tetep & Nurahmi, 2021). The student who obtains the paper ball subsequently unfolds it and responds to the question (Hardiansyah, 2022; Sefira et al., 2024).

This model seeks to enhance student engagement in learning by promoting active knowledge discovery through discussions, question formulation, and opinion expression, thereby transforming students from passive recipients to active participants in the learning process (Hidayah & Purwanti, 2022; Khairunnisa & Elfrianto, 2025). The Snowball Throwing Model seeks to enhance learning engagement by prompting students to actively explore knowledge through discussions, question formulation, and opinion expression, thereby directly involving them in the educational process (Manalu et al., 2022; Rusyda et al., 2024; Ulpa et al., 2025). Learning interest is pivotal to effective education. Interest in learning is characterized by a persistent inclination to comprehend and engage in educational activities, along with a feeling of pleasure and enthusiasm. Interest in learning is a persistent inclination to comprehend and engage with a learning activity (Chandra et al., 2023; Oktavia et al., 2024). This interest enables

an individual to engage in the learning process with emotions of delight and passion (Yunitasari & Hanifah, 2020). A proclivity for learning indicates a desire for understanding and the broadening of one's perspectives. An individual possessing this desire will proactively pursue the requisite knowledge (Dalimunthe, 2020; Ndraha et al., 2022). Interest in learning is the inclination to concentrate and engage in the acquisition of knowledge. Students exhibiting a strong interest in learning are generally more engaged and astute, resulting in superior accomplishments (Fajri et al., 2025; Iskandar & Nurulita, 2023).

Interest in acquiring knowledge is distinguished by four key indicators. Initially, a sense of enjoyment is defined as the state in which students experience enthusiasm for learning a subject voluntarily and without coercion. Second, interest, which is the innate inclination to be attracted to a specific activity or subject that offers emotional fulfillment. Third, attention is exemplified by a student's capacity to concentrate and disregard distractions. Fourth, engagement is defined as a student's willingness to actively participate in activities aligned with their interests (Darwis et al., 2023; Erni et al., 2024; Situmorang, 2020).

Ideal learning is characterized by its ability to comprehensively foster students' creativity, promote greater engagement, efficiently achieve learning objectives, and occur within a positive and enjoyable environment (Fryer et al., 2025; Sihombing et al., 2024; Trianasari et al., 2024). Nevertheless, this type of learning can only be achieved if it is also fostered by students' enthusiasm for acquiring knowledge. Optimal engagement in learning is achieved when students feel satisfied, interested, attentive, and actively involved in the educational process. Moreover, interest in learning is evidenced by their motivation and the extent of knowledge they acquire (Ikhsani et al., 2023; Rahmasari, 2023; Zaedun, 2021).

In a preliminary study conducted by the author through observations and interviews with Islamic Religious Education teachers at Middle School 1 Waway Karya, several problems were identified, namely: (1) low student learning initiative due to perceived Islamic Religious Education lessons as boring, (2) lack of focus during learning, (3) lack of self-confidence due to the presence of strangers in the class, and (4) monotonous learning methods. Additionally, the results of the pre-research questionnaire showed that the Feeling of Enjoyment indicator achieved the highest percentage (33%), while Attention only reached 21%, Interest 18%, and Engagement 28%. This data indicates that although students enjoyed learning, their attention and interest remained low.

Interest in acquiring knowledge is strongly associated with attentional focus. Students exhibiting high levels of interest are generally more attentive and demonstrate a greater understanding of the material (Irianto & Universitas, 2024; Kusuma, 2022). Student engagement with the subject matter markedly influences the learning process and academic success. Students exhibiting high levels of interest are generally more engaged, motivated, and enthusiastic and are encouraged to pursue additional information and actively participate in discussions (Atay, 2025; Hartati & Jimmy Copriadi, 2023). Students with a strong interest in learning tend to be attentive, retain information more effectively, and experience a sense of satisfaction and pride regarding

their pursuits. This fascination motivates them to engage more actively in relevant activities (Guo & Fryer, 2025; Herpratiwi & Tohir, 2022; Ikhsani et al., 2023). Therefore, it can be concluded that although students derive enjoyment from learning, their level of interest remains suboptimal due to insufficient indicators of attention, engagement, and interest. Therefore, interactive and stimulating learning approaches are essential to enhance their concentration and involvement.

Numerous prior studies conducted by Ramadhan and Suharyat (2022); Yuliani et al. (2022); Inayah et al. (2024); Novianti et al. (2023); Lestari and Sabiti (2022) have demonstrated that the snowball throwing model is effective in enhancing students' interest in learning. However, most of the research was carried out at the elementary and secondary school levels, focusing on social studies, mathematics, and Islamic religious education across various contexts. This research presents novelty by specifically investigating the impact of the snowball throwing model on students' interest in learning Islamic religious education at the junior high school level, particularly at Middle School 1 Waway Karya, which possesses a distinct learning environment and conditions.

The originality of this study resides in its emphasis on investigating the impact of the snowball-throwing learning model on junior high school students' engagement with Islamic religious education. Previous studies concerning this method have predominantly been conducted at the elementary and secondary education levels, as well as in disciplines other than Islamic Religious Education. Therefore, this research offers a novel contribution to the field of Islamic religious education at the middle school level. The method employed also provides guidance on incorporating snowball throwing into Islamic religious education, serving as a valuable reference for educators to enhance the quality of instruction.

The minimal interest in Islamic religious education, as demonstrated by the preliminary research findings, suggests that students' engagement and enthusiasm remain insufficient due to repetitive instructional techniques. Consequently, the Snowball Throwing approach was selected as an alternate solution due to its capacity to foster a dynamic and pleasurable learning environment, thereby promoting increased student engagement and activity. The use of this methodology aims to enhance student engagement in learning and improve educational efficacy. The results of this study are anticipated to inform educators and institutions in formulating more innovative pedagogical approaches, therefore enhancing the overall quality of Islamic religious education.

2. METHOD

This study utilized a quantitative technique with a quasi-experimental design, employing two classes as samples: class VII.E as the experimental group and class VII.B as the control group. The experimental group was taught using the snowball tossing learning paradigm, whereas the control group continued with conventional instructional approaches. The study was conducted in the odd semester of the 2025/2026 academic year at Middle School 1 Waway Karya. Data collection was executed by the distribution of non-test questionnaires formulated on learning interest indicators, particularly student

engagement and attentiveness. The researcher utilized a post-test-only control group design, conducting measurements exclusively after the treatment to evaluate the immediate effects of the applied learning model. The subsequent illustration represents a post-test-only control group design, as demonstrated in Figure 1.

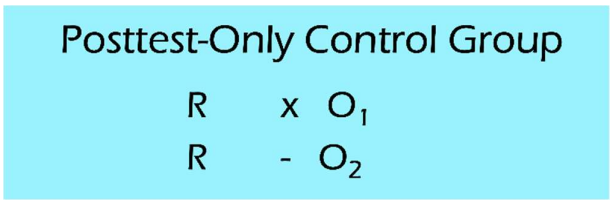

Figure 1. Post-test-only Control Group Design

The implementation of the study began with planning, which included the preparation of research instruments in the form of questionnaires, conducting validity and reliability evaluations, and selecting the research sample using probability sampling techniques. Subsequently, the researcher implemented the snowball throwing learning model in the experimental class. The learning stages comprised (1) the instructor providing an overview of the material; (2) the instructor preparing individual sheets containing key points from the content for each group to study; (3) the instructor directing the group leader to review the sheet and gain a deeper understanding of the material; (4) the instructor instructing the group leader to convey the information to their group members; (5) each student being tasked with formulating a question related to the material, which was then shaped into a ball and randomly thrown to another student; and (6) the student who received the ball being required to respond to the question. This activity aims to promote active participation and enhance student interest in Islamic Religious Education content.

After the learning process concludes, students from both groups are given a learning interest questionnaire to complete. The gathered data undergo normality and homogeneity tests as preliminary measures, followed by assessments of normality, evaluations of homogeneity, and hypothesis testing to determine the significance of differences between the experimental and control groups. The questionnaire consists of 20 Likert-scale items and has undergone prior validation for both precision and reliability. The outcomes of the statistical analysis are employed to evaluate the extent to which the snowball-throwing learning model significantly influences students' motivation in learning, specifically regarding Islamic Religious Education.

3. RESULTS AND DISCUSSION

Results

This study was carried out in Middle School 1 Waway Karya, Bandar Lampung. Diverse data collection methodologies were employed, including multiple-choice assessments aligned with learning outcome indicators, subsequently evaluated for

validity and reliability. The subsequent data was acquired during the reliability assessment.

Table 1. Description of the Results of the Trial Class Validity Test

Question Number	R_Table	R_Count	Information
1	361	420	Valid
2	361	575	Valid
3	361	464	Valid
4	361	196	Invalid
5	361	354	Invalid
6	361	707	Valid
7	361	423	Valid
8	361	686	Valid
9	361	696	Valid
10	361	618	Valid
11	361	704	Valid
12	361	545	Valid
13	361	314	Invalid
14	361	747	Valid
15	361	556	Valid
16	361	674	Valid
17	361	539	Valid
18	361	689	Valid
19	361	686	Valid
20	361	779	Valid
21	361	469	Valid
22	361	17	Invalid
23	361	812	Valid
24	361	691	Valid
25	361	-378	Invalid
26	361	-143	Invalid

Table 2. Description of the Results of the Trial Class Reliability Test

Reliability Statistics	
Cronbach's Alpha	**N of Items**
.871	26

The validity test results presented in Table 1 show that, out of the 26 statement items evaluated, 20 items were deemed valid (numbers 1, 2, 3, 6, 7, 8, 9, 10, 11, 12, 14, 15, 16, 17, 18, 19, 20, 21, 23, and 24) as their calculated r values exceeded the table r of 0.361 at a 5% significance level. Conversely, the remaining 6 items (numbers 4, 5, 13, 22, 25, and 26) were classified as invalid due to their calculated r values being lower than the table r. This indicates that many of the statement items have effectively measured the learning interest variable; however, certain faulty items require revision or elimination. The reliability test findings in Table 2 indicate a Cronbach's Alpha value

of 0.871, deemed exceptionally high. Consequently, the questionnaire instrument can be deemed reliable and consistent for assessing study variables.

Normal Test

The normality test assesses if the gathered data follows a normal distribution. Data is deemed normal if the significance value exceeds 0.05. The subsequent data presents the outcomes of the normalcy test conducted in this investigation.

Table 3. Description of Normality Test Results

	Group	Kolmogorov-Smirnov[a]			Shapiro-Wilk		
		Statistic	df	Sig.	Statistic	df	Sig.
Interest in Learning	1	.111	31	.200*	.972	31	.576
	2	.140	30	.135	.957	30	.252

The normality test results in Table 3 show that the first group's learning interest data has significant values of 0.200 and 0.576, while the second groups has 0.135 and 0.252. All significance values surpass 0.05, showing regular distribution in both groups. Both groups satisfy the normality assumption, allowing parametric tests like the t-test to compare the experimental and control groups.

Homogenitas Test

Homogeneity tests assess whether study populations have similar variations. Data is homogeneous if Sig. > 0.05. The homogeneity test findings from the study are below.

Table 4. Description of Homogeneity Test Results

		Levene Statistic	df1	df2	Sig.
Interest in Learning	Based on Mean	.091	1	59	.763
	Based on Median	.092	1	59	.763
	Based on Median and with adjusted df	.092	1	57.523	.763
	Based on trimmed mean	.122	1	59	.729

In Table 4, the homogeneity test shows that all significant Levene test results, whether from the mean, median, adjusted degrees of freedom, or trimmed mean, are 0.763 and 0.729, both above 0.05. The homogeneity assumption is met since group variance is homogeneous, allowing parametric tests like the t-test to continue.

T-Test

The independent sample t-test in this study was used to assess the final sample's ability. The testing procedure is as follows. To test the above hypothesis, the authors in this study used the pooled variance test formula.

Table 5. Hypothesis Test Results (Independent Samples Test)

		F	Sig.	t	df	Significance		Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
						One-Sided p	Two-Sided p			Lower	Upper
Interest in Learning	Equal variances assumed	.091	.763	2.731	59	.004	.008	3.8742	1.4186	1.0356	6.7127
	Equal variances not assumed			2.730	58.812	.004	.008	3.8742	1.4191	1.0344	6.7140

The t-test in this table was used to determine if the two data sets' means differ significantly. Two conditions were used for the analysis: homogenous variances and heterogeneous variances. Based on the previous homogeneity test, Levene's Test showed that both groups' variances were homogeneous at 0.763 (>0.05). Thus, the expected row for equal variances was the t-test result. This row has a t-value of 2.731, a df of 59, and a two-tailed significance of 0.008. Since this significant value is below 0.05, the two groups' average learning interest differs significantly. The null hypothesis (H_0) is rejected, while the alternative hypothesis (H_1) is accepted.

Discussion

The study found that the snowball-throwing learning style boosts student interest in Islamic religious education. The average difference of 3.8742 shows that the experimental group had more learning interest than the control group utilizing conventional methods. This shows that interactive learning, active participation, and question-and-answer sessions can engage pupils. Snowball throwing increases student interest as a learning approach.

Additionally, an independent sample T-test was utilized to compare two groups' average learning interest. The hypothesis test row "Equal variances assumed" was employed since Levene's Test showed homogeneous variance with a Sig. of 0.763 (> 0.05). A t-value of 2.731, df of 59, and p of 0.008 were calculated. The null hypothesis (H_0) is rejected and the alternative hypothesis (H_1) accepted since 0.008 is smaller than 0.05. Rejection of H_0 and acceptance of H_1 suggest a significant difference in average learning interest between the experimental and control groups. In practice, this indicates that the intervention administered to one group (the experimental group) has significantly increased learning interest compared to the control group. Treatment caused this discrepancy.

Syntactic structure that actively engages students in learning makes the Snowball Throwing model successful (Bukit et al., 2023; Yahya et al., 2022). The teacher's

presentation, group division, group leader's re-presentation, and activity of creating paper ball questions and throwing them at other students create a fun learning cycle and spark students' curiosity. This practice makes the classroom alive, helping students focus, engage, and take responsibility for their learning.

The main concern in the field before the research was poor student learning initiative owing to uninteresting Islamic Religious Education classes and too few teaching approaches. Students were less engaged in learning under this scenario. The Snowball Throwing concept solved this problem by giving kids a place to talk, study, and have fun (Fitrianto et al., 2023). Students throwing and answering questions builds boldness and curiosity, which are crucial for learning interest (Sari, 2022; Siahaan et al., 2021).

The Snowball Throwing syntax is (a) the teacher explains the material, (b) the teacher prepares slips of paper with material points for each group, (c) the group leader relays the material to their members, (d) students generate questions, (e) the questions are crumpled into balls and thrown to other students, and (f) students answer the questions (Hardiansyah, 2022). These processes promote critical thinking, communication, and active engagement. Studies suggest that students remember more and participate more in class (Aini & Khoiri, 2024; Pranata, 2023).

Higher learning interest indicators, especially attention and interest, show that this paradigm engages students' psychological well-being. Students appreciate learning more when they participate, feel challenged, and stay focused when answering peer questions (Koehler & Meech, 2022). Traditional lecture approaches are one-way and passive, making this challenging. So, snowball throwing is better for active, engagement, and meaningful learning.

T-tests, validity tests, reliability tests, and normalcy tests support the Snowball Throwing model's capacity to engage students. The experimental group responded well to the method, even though the research instrument needs improvement in reliability. These data demonstrate that creative learning methods affect learning outcomes, student attitudes, and enthusiasm.

The effective execution of this model significantly benefits Islamic religious education instructors and educators in other disciplines. This model serves as an alternate pedagogical approach to enhance student involvement while maintaining the integrity of the content (Jumari, 2024). This model facilitates the enhancement of social, communicative, and critical thinking abilities in pupils. The results of this study can serve as a basis for subsequent researchers to develop more active learning models applicable to various contexts and educational tiers, extending beyond Islamic Religious Education.

Participatory learning strategies like snowball throwing increase learning interest more than traditional methods, according to this study. Success requires enjoyable, engaging instruction and student participation. This study's findings are expected to inspire educators to be more creative in curriculum design and address student engagement issues, especially in less engaging subjects like Islamic Religious Education.

4. CONCLUSION

The Snowball Throwing model significantly enhances student enthusiasm in acquiring Islamic Religious Education at Middle School 1, Waway Karya. The influence is evidenced by statistical analysis results, which indicated that the data were normal and homogeneous. A t-test revealed a significant value of 0.008, which is less than 0.05, demonstrating a difference in average learning interest between the experimental and control groups. Given that the significance value is 0.008, which is less than 0.05, it may be concluded that a significant difference exists in the average learning interest between the group using the Snowball Throwing learning model (Experiment) and the group employing the conventional approach (Control). The cohort utilizing the Snowball Throwing model exhibited a greater degree of learning engagement compared to the cohort employing traditional methods. This enhancement was apparent in metrics of student interest, attention, and engagement throughout the learning process. Engaging in activities including creating inquiries, tossing and responding to "question balls," and participating in group discussions fostered a more engaging and enjoyable learning atmosphere, hence enhancing student engagement. Consequently, this model merits consideration as an alternative pedagogical strategy in Islamic Religious Education to enhance student engagement and foster a more effective and meaningful learning experience.

As a suggestion, the Snowball Throwing learning model is recommended for use as an alternative learning strategy in the classroom, particularly in Islamic Religious Education subjects or other subjects that require increased student participation and interest in learning, given that this model has been proven to create significant differences in learning interest. Furthermore, other researchers are encouraged to continue this research by testing the effectiveness of the Snowball Throwing model on learning outcomes or other psychological variables (such as motivation or creativity). Comparative studies of this model with other active learning models are also recommended to obtain more comprehensive findings.

REFERENCES

Agustin, D., & Gumala, Y. (2025). Analisis Penerapan Model Pembelajaran Snowball Throwing Terhadap Peningkatan Hasil Belajar Peserta Didik : Literatur Riview. *Social Edu: Jurnal Ilmu Sosial Dan Pendidikan*, *February*, 52–64. https://doi.org/10.37286/jmp.v4i1.251

Ahya, I. N., & Kholisna, T. (2022). Kesejahteraan Guru Honorer terhadap Etos Kerja Guru SMA Swasta. *Jurnal Literasi Psikologi*, *2*(2), 64–77.

Aini, F. I., & Khoiri, M. (2024). Efektivitas Pembelajaran Bangun Datar Menggunakan Model Pembelajaran Snowball Throwing Terhadap Siswa SDI Nurul Mushthofa. *Hexagon: Jurnal Ilmu Dan Pendidikan Matematika*, *2*(1), 73–78. https://doi.org/10.33830/hexagon.v2i1.6053.

Ambarsari, S. N., Muharom, F., & Suoriyanto. (2024). Implementation of the snowball throwing method in PAI subjects to improve student learning outcomes. *Cendikia : Media Jurnal Ilmiah Pendidikan*, *14*(4), 399–406. https://doi.org/10.35335/cendikia.v14i4.4853

Aprilliani, Y., Primahardani, I., & Supentri. (2024). Pengaruh Model Pembelajaran Koaboratif Berbasis Masalah Terhadap Kreativitas Belajar Siswa Kelas IX SMP IT Al-Fityah Pekan Baru. *Jurnal Manajemen Pendidikan Dan Pelatihian*, *8*(1), 15–22. https://doi.org/10.35446/diklatreview.v8i1.1655

Atay, M. G. (2025). The relationship between medical students ' interest in learning and their ability to solve mathematical problems : the chain-mediating role of teacher-student relationship and self-efficacy. *Frontiers*, 1–10. https://doi.org/10.3389/fpsyg.2025.1531262

Aulia, V. T., Efendi, N., Oktira, Y. S., Efrina, G., Nahdlatul, U., & Sumbar, U. (2024). Peningkatan Hasil Belajar dengan Menggunakan Model Snowball Throwing Pada Pembelajaran Tematik Kelas V Di SD Negeri 01 Ulak Karang. *INNOVATIVE: Journal Of Social Science Research*, *4*(2), 571–583. https://indopediajurnal.my.id/index.php/jurnal/article/view/248/179

Bloch, C., Degn, L., Nygaard, S., & Haase, S. (2021). Does quality work work? A systematic review of academic literature on quality initiatives in higher education. *Assessment & Evaluation in Higher Education*, *46*(5), 701-718. https://doi.org/10.1080/02602938.2020.1813250

Bukit, S., Ariastika, D., Noviati, Y., & Lubis, Y. (2023). Snowball Throwing Learning Model in Growing Questioning Skills of Elementary School Students: A Review. *Journal Corner of Education, Linguistics, and Literature*, *2*(4), 343-351. https://doi.org/10.54012/jcell.v2i4.145

Chandra, M. P., Rasimin, & Lubis, M. A. (2023). Upaya Meningkatkan Minat Belajar Siswa dengan Penerapan Layanan Informasi Menggunakan Media Audio Visual Pasca Covid. *JUANG: Jurnal Wahana Konseling*, *6*(2), 109–119. https://doi.org/10.31851/juang.v6i2.13191

Dalimunthe, M. I. (2020). Pengaruh Kecerdasan Emosional dan Minat Belajar Terhadap Pemahaman Akuntansi di Universitas Medan Area. *Jurnal Mutiara Akuntansi*, *5*(2). https://e-journal.sari-mutiara.ac.id/index.php/JMA/article/view/1381

Darwis, M., Fitriah, N., & Arhas, S. H. (2023). The Influence of the Classical Learning Model on Students ' Interest in Learning at SMKN 1 Bantaeng. *Pinisi Journal of Education and Management*, *2*(2), 237–246.

Erni, E., Haliadi, H., & Hasdin, H. (2024). Analysis of the Snowball Throwing Learning Model Assisted by Canva Media on Social Studies Learning Outcomes. *Journal of Education Method and Learning Strategy*, *2*(02), 853–858. https://doi.org/10.59653/jemls.v2i02.818

Fajri, R. M., Wijoyo, S. H., & Hidayat, N. (2025). Pengaruh Minat Belajar , Motivasi Belajar , dan Gaya Belajar Siswa Terhadap Hasil Belajar Siswa Kelas XI Pada Mata Pelajaran Pemrograman Website Di SMKN 11 Malang. *Jurnal Pengembangan Teknologi Informasi Dan Ilmu Komputer*, *9*(5), 1–9. https://j-ptiik.ub.ac.id/index.php/j-ptiik/article/view/14751

Fitrianto, I., Hamid, R., & Mulalic, A. (2023). The effectiveness of the learning strategy" think, talk, write" and snowball for improving learning achievement in lessons insya'at Islamic Boarding School Arisalah. *International Journal of Post Axial: Futuristic Teaching and Learning*, 13-22. https://doi.org/10.59944/postaxial.v1i1.142

Fryer, L. K., Shum, A., King, R. B., & Lau, P. (2025). How does interest in a course interact with course learning ? *Learning and Instruction*, *98*(March), 102106. https://doi.org/10.1016/j.learninstruc.2025.102106

Guo, Z., & Fryer, L. K. (2025). What really elicits learners ' situational interest in learning activities : a scoping review of six most commonly researched types of situational

interest sources in educational settings. *Current Psychology*, 587–601. https://doi.org/https://doi.org/10.1007/s12144-024-07176-x

Hamidah. (2023). Meningkatkan Prestasi Belajar Mata Pelajaran IPS Terpadu Materi Penguatan Ekonomi Maritim Model Pembelajaran Snowball Throwing Improving. *Pedagogik Jurnal Pendidikan*, *18*(1), 56–61.

Hardiansyah, F. (2022). Snowball Throwing: A Method To Uplift Elementary School Students' Responsibility on Environment. *Al-Ishlah: Jurnal Pendidikan*, *14*(3), 3853-3864. https://doi.org/10.35445/alishlah.v14i3.1966

Hartati, L., & Jimmy Copriadi. (2023). Rendahnya Minat Belajar Siswa pada Masa Covid-19: Kajian Aksiologi. *Jurnal Filsafat Indonesia*, *6*(1), 75–81. https://doi.org/10.23887/jfi.v6i1.41551

Hasanah, N. H., & Swondo, A. P. (2021). the Effect of Snowball Throwing Method on Students' Vocabulary Mastery. *Journal MELT (Medium for English Language Teaching)*, *5*(2), 175. https://doi.org/10.22303/melt.5.2.2020.175-185

Herpratiwi, & Tohir, A. (2022). Learning Interest and Discipline on Learning Motivation To cite this article : *International Journal of Education in Mathematics, Science and Technology*, *10*(2), 424–435. https://doi.org/https://doi.org/10.46328/ijemst.2290

Hidayah, N., & Purwanti, S. (2022). Upaya Peningkatan Hasil Belajar Kognitif IPA Melalui Model Pembelajaran Kooperatif Tipe Snowball Throwing Pada Kelas IV SD Darul Qur'an Sragen. *JIPDAS (Jurnal Ilmiah Pendidikan Dasar) Institut Pendidikan Tapanuli Selatan*, *2*(3), 202–210. https://jurnal.spada.ipts.ac.id/index.php/JIPDAS/article/view/1133

Husna, A., Taher, A., & Kamaruddin, T. (2020). Perbandingan Hasil Belajar Siswa Menggunakan Model Pembelajaran Kooperatif Tipe Snowball Throwing dengan Model Pembelajaran Tipe Team Quizmata Pelajaran IPS Terpadu di SMP Negeri 2 Muara Tiga Kabupaten Pidie. *Jurnal Ilmiah Mahasiswa Pendidikan Geografi FKIP Unsyiah*, *5*(2), 93–98.

Idriastuti, L. R. (2021). Aplication Of Cooperative Learning Snowball Throwing Model To Improve the Result Of History Learning For Learners. *Eduvest – Journal of Universal Studies Volume*, *1*(6), 484–497.

Ikhsani, S. R., Tangawunisma, A., Sholeha, A., Divanka, P., & Setiabudi, D. I. (2023). Karakteristik Pembelajaran Tematik Yang Ideal Pada Sekolah Dasar. *Student Scientific, Creativity Journal*, *1*(1), 291–295. https://doi.org/10.55606/sscj-amik.v1i1.1126

Inayah, T., Nurpratiwiningsih, L., & Setiyoko, D. T. (2024). Pengaruh Model Pembelajaran Snowball Throwing Terhadap Minat Kelas III SDN Prapag Kidul 03. *Jurnal Ilmiah Wahana Pendidikan*, *10*(5), 862–869. https://doi.org/10.5281/zenodo.10547888

Irianto, T. U., & Universitas, N. J. T. (2024). Boosting Elementary Students' Learning Interest : The Impact Of The Question-and-Answer Method. *Applied Linguistics: Innovative Approaches and Emerging Trends*, *1*(2), 94–110. https://doi.org/10.58989/appling.v1i2.18

Iskandar, R., & Nurulita, H. (2023). Pengaruh Minat Belajar terhadap Hasil Belajar Ekonomi. *JIIP - Jurnal Ilmiah Ilmu Pendidikan*, *6*(12), 9818–9822. https://doi.org/10.54371/jiip.v6i12.2895

Islamiati, A. D., Dollah, S., & Sakkir, G. (2024). the Use of the Snowball Throwing Technique in Teaching Reading Skill Penggunaan Teknik Snowball Throwing Dalam Pengajaran Keterampilan Membaca Bahasa Inggris. *JURNAL INDOPEDIA (Inovasi Pembelajaran Dan Pendidikan)*, *2*(1), 196–206. https://indopediajurnal.my.id/index.php/jurnal/article/view/248/179

Jumari, E. O. (2024). Snowball Throwing: The Critical Thinking and Self-Efficacy

Revolution. *Pasundan Journal of Mathematics Education: Jurnal Pendidikan Matematika*, *14*(2), 95-111. https://journal.unpas.ac.id/index.php/pjme/article/view/16551

Khairunnisa, S., & Elfrianto. (2025). The Use of the Snowball Throwing Model to Increase Student Activeness in Mathematics Learning in Class III of Sd Negeri 064967 Medan Timur. *Jurnal Nasional Holistic Science*, *5*(1), 10–15. https://doi.org/10.56495/hs.v5i1.602

Koehler, A. A., & Meech, S. (2022). Ungrading learner participation in a student-centered learning experience. *TechTrends*, *66*(1), 78-89. https://doi.org/10.1007/s11528-021-00682-w

Kurniati, N., DN, U. Y., & Yusandra, T. F. (2021). Perbandingan Penggunaan Model Pembelajaran Numbered Head Together (Nht) Dengan Model Snowball Throwing Terhadap Keterampilan Menulis Teks Puisi Siswa Kelas Viii Smp N 1 Sungai Beremas. *Horizon*, *1*(1), 113–120. https://doi.org/10.22202/horizon.v1i1.4702

Kusuma, E. R. (2022). Pengembangan Modul Digital Tentang Peristiwa G30S/Pki Untuk Meningkatkan Minat Belajar Dan Berpikir Kritis Siswa. *Jurnal Pendidikan Sejarah Indonesia*, *5*(1), 100. https://doi.org/10.17977/um0330v5i1p100-109

Lestari, P., & Sabiti, N. (2022). Implementasi Model Pembelajaran Snowball Throwing Dengan Media Teka-Teki Silang untuk Meningkatkan Minat Belajar Siswa Pada Mata Pelajaran PAI dan Budi Pekerti. *Jurnal Tarbi (Jurnal Ilmiah Mahasiswa)*, *1*(2), 167–179. https://doi.org/10.33507/tarbi.v1i2.464

Maisa, R. G., & Farida, S. (2021). Peningkatan Hasil Belajar Peserta Didik dengan Menggunakan Model Pembelajaran Cooperative Tipe Snowball Throwing pada Pembelajaran Tematik terpadu di Kelas V SDN 24 Gunung Rajo Kabupaten Tanah Datar. *Jurnal Pendidikan Tambusai*, *5*(1), 1466–1472.

Manalu, K., Pima, E., Tambunan, S., Sari, O. P., Islam, U., & Sumatera, N. (2022). Snowball Throwing Learning Model : Increase Student Activity And Learning Outcomes. *Journal of Education and Teaching Learning (JETL)*, *4*(1), 1–13. https://doi.org/10.51178/jetl.v4i1.413

Mariam, S., Sapriati, A., & Suroyo, S. (2024). Snowball throwing learning strategy and learning motivation: keys to success in improving science learning outcomes for high class students. *Jurnal Fundadikdas (Fundamental Pendidikan Dasar)*, *7*(1), 17–25. https://doi.org/10.12928/fundadikdas.v7i1.10103

Ndraha, I. S., Mendrofa, R. N., & Lase, R. (2022). Analisis Hubungan Minat Belajar Dengan Hasil Belajar Matematika. *Educativo: Jurnal Pendidikan*, *1*(2), 672–681. https://doi.org/10.56248/educativo.v1i2.92

Novianti, M. P., Adnyana, K. S., & Ardiawan, I. K. N. (2023). Pengaruh Model Snowball Throwing Berbantuan Gending Rare Terhadap Minat Belajar Matematika. *Indonesian Journal of Learning Education and Counseling*, *5*(2), 116–122. https://doi.org/10.31960/ijolec. V5i1.2004

Ofridaningsih, Sumartono, & Herwanto, M. A. (2022). The Efectiveness of Snowball Throwing Cooperative Learning Model on Student' Mathematics Learning Outcomes. *Journal of Educational Technology and Innovation*, *6*(1), 17–23. https://doi.org/https://doi.org/10.31537/jeti.v6i1.1102

Oktavia, S., Kurnisar, & Mutiara, T. M. (2024). Meningkatkan Minat Belajar Peserta Didik Dengan Penggunaan Media Wordwall Pada Pembelajaran PPKn. *Jurnal Educatio*, *10*(4), 1162–1168. https://doi.org/https://doi.org/10.31949/educatio.v10i4.9402

Polotoy, A. (2022). Penigkatan Aktivitas Dan Hasil Belajar Ekonomi Kelas XI IPS 1 Melalui Penerapan Metode Snowball Throwing SMA Negeri 1 Paguat Tahun Pelajaran 2019 / 2020. *AKSARA: Jurnal Ilmu Pendidikan Nonformal*, *08*(January), 349–362.

https://doi.org/10.37905/aksara.8.1.349-362.2022

Pranata, D. (2023). Pengaruh Model Pembelajaran Kooperatif Tipe Snowball Throwing Terhadap Hasil Belajar Ips. *Mimbar Ilmu*, *24*(3), 2807–4246. https://doi.org/10.23887/mi.v24i3.21677

Pristiwanti, D., Badariah, B., Hidayat, S., & Dewi, R. S. (2022). Pengertian Pendidikan. *Jurnal Pndidikan Dan Konseilng*, *4*(6), 7911–7915. https://doi.org/10.31004/jpdk.v4i6.9498

Rahmasari, D. (2023). Strategi Guru dalam Meningkatkan Minat Belajar. *Jurnal Citra Pendidikan (JCP)*, *4*(1), 88–100. https://doi.org/https://doi.org/10.38048/jcp.v3i3.1831

Ramadhan, F., & Suharyat, Y. (2022). Pengaruh Model Snowball Throwing pada Pembeljaran Pendidikan Agama Islam terhadap Minat Belajar di SMA NEGERI 1 Tambun Utara. *Jurnal Masyarakat Mengabdi Nusantara (JMMN)*, *1*(3), 1–9. https://doi.org/10.58374/jmmn.v1i3.86

Risti, E., Hiyum, W., Nugroho, A. S., & Yunita, N. (2025). Implementation of the Snowball Throwing Learning Model with Ice Breaking in Mathematics Subject. *Journal of Medives : Journal of Mathematics Education IKIP Veteran Semarang*, *9*(2), 133–144. https://doi.org/https://doi.org/10.31331/medivesveteran.v9i2.3595

Rusyda, M. T., Zulkifli, L., & Merta, I. W. (2024). Perbandingan Hasil Belajar Siswa Melalui Penggunaan Model Pembelajaran Discovery Learning dengan Model Pembelajaran Kooperatif. *Jurnal Pendidikan, Sains, Geologi, Dan Geofisika*, *5*(4), 901–907. https://doi.org/https://doi.org/10.29303/geoscienceed.v5i4.514

Sari, I. W. (2022). Pengaruh Model Pembelajaran Snowball Throwing Berbantuan Media Permainan Tebak Gambar Terhadap Hasil Belajar Siswa Kelas III SD. *Jurnal Ilmiah Mandala Education*, *8*(1), 749–757. https://doi.org/10.58258/jime.v8i1.2771

Sartania, N., Sneddon, S., Boyle, J. G., McQuarrie, E., & de Koning, H. P. (2022). Increasing collaborative discussion in case-based learning improves student engagement and knowledge acquisition. *Medical science educator*, *32*(5), 1055-1064. https://doi.org/10.1007/s40670-022-01614-w

Siagian, B. S., Arlina, Luthfianti, N., & Amanda, Y. (2025). Implementasi Metode Snowball Throwing Dalam Meningkatkan Partisipasi dan Pemahaman Siswa di Elsusi Meldina. *QOSIM : Jurnal Pendidikan, Sosial & Humaniora*, *3*(1), 202–210. https://doi.org/10.61104/jq.v3i1.748

Siahaan, K. W. A., Damanik, D. H. S., Tambunan, S. S., SImanjuntak, M., & Sihombing, D. (2021). Implementasi Model Quantum Teaching dan Metode Snowball Throwing Terhadap Minat dan Prestasi Belajar Kimia. *Jurnal Ekonomi, Sosial & Humaniora*, *2*(7), 16–24. https://jurnalintelektiva.com/index.php/jurnal/article/view/416

Sihombing, J. S., Purnawan, P. E., Sababalat, K. Z., & Tafonao, T. (2024). Analisis Faktor Faktor yang Mempengaruhi Minat Belajar Mahasiswa. *Jurnal Ilmiah Multidisiplin*, *1*(2), 106–118. https://doi.org/10.62282/juilmu.v1i2.106-118

Situmorang, A. S. (2020). Microsoft Teams For Education Sebagai Media Pembelajaran Interaktif Meningkatkan Minat Belajar. *SEPREN: Journal of Mathematics Education and Applied*, *02*(01), 30–35. https://doi.org/10.36655/sepren.v2i1.351

Tetep, & Nurahmi, A. P. (2021). Peningkatan Hasil Belajar IPS Melalui Pengguatan Metode Snowball Throwing. *Journal Civics & Social Studies*, *5*(2), 198–213. https://doi.org/10.31980/civicos.v5i2.1481

Trianasari, A., Aini, Q., & Prasojo, S. D. (2024). Jurnal Guru Komputer Implementation of the Snowball Throwing Method with Wordwall Learning Media to Increase Students ' Learning Interest and Motivation in Software and Game Development in. *Jurnal Guru Komputer*, *5*(1), 36–44.

https://ejournal.upi.edu/index.php/JGrKom/article/view/66445

Ulpa, M., Sandi, & Azis, E. (2025). Pengaruh Penerapan Model Snowball Throwing Terhadap Hasil Belajar Siswa. *Journal on Education*, *07*(02), 12349–12360. https://doi.org/10.31004/joe.v7i2.8362

Wianto, T., & Firdaus, M. (2025). Increasing Students' Reading Comprehension and Learning Interest by Using Snowball Throwing Method at The Tenth-Grade Students of Assalam IBS. *Journal of Classroom Action Research*, *7*(1), 256-260. https://doi.org/10.29303/jcar.v7i1.10226

Yahya, A., Vernando, C. L., & Herna, H. (2022). Penerapan Model Pembelajaran Snowball Throwing Dengan Ice Breaking Untuk Meningkatkan Minat Dan Hasil Belajar Matematika Siswa Kelas Viii Smp Negeri 5 Tobadak. *ELIPS: Jurnal Pendidikan Matematika*, *3*(1), 30–44. https://doi.org/10.47650/elips.v3i1.390

Yuliani, M., Habibi, M. R., & Nandasari, S. (2022). Pengaruh Model Pembelajaran Snowball Throwing Terhadap Minat Belajar Siswa Subtema Materi Pahlawan Indonesia Muatan Ilmu Pengetahuan Sosial di Kelas IV SD Negeri 3 Lando. *Journal of Classroom Action Research*, *4*(4), 120–123. https://doi.org/10.29303/jcar.v4i4.2969

Yunitasari, R., & Hanifah, U. (2020). Pengaruh pembelajaran daring terhadap minat belajar siswa pada masa covid 19. *Edukatif: Jurnal Ilmu Pendidikan*, *2*(3), 232-243. https://edukatif.org/edukatif/article/view/142

Zaedun. (2021). Pengaruh Model Pembelajaran Snowball Throwing Terhadap Minat Belajar Geografi Siswa SMA Negeri 2 Labuapi. *Jurnal Teknologi Pendidikan : Jurnal Penelitian Dan Pengembangan Pembelajaran*, *6*(1), 78. https://doi.org/10.33394/jtp.v6i1.3607