THE APPLICATION OF THE SNOWBALL THROWING LEARNING MODEL BASED ON HOTS QUESTIONS IN IMPROVING ISLAMIC EDUCATION LEARNING OUTCOMES AT JUNIOR HIGH SCHOOL

Rizkyna Mazidah¹, Dzulfikar Akbar Romadlon², Anita Puji Astutik³
¹²³ Universitas Muhammadiyah Sidoarjo; Indonesia
Corespondence email; rizkyna002@gmail.com

Abstract
This study aims to determine the increase in learning outcomes and to train students to think creatively and actively use the snowball-throwing learning model in Islamic Education (PAI) class VII at SMPN 1 Tanggulangin. This research uses a type of classroom action research (CAR), carried out in three cycles with four stages, namely planning, implementation, observation, and reflection, carried out repeatedly. The subjects in this study were 36 students in classes VII-6. Data collection techniques using observation, interviews, tests, and documentation. Data analysis technique using descriptive analysis. This research shows that implementing the HOTS question-based Snowball Throwing learning model in the chapter "Al-Qur’an and Sunnah as a guide to life" obtained an average student learning completeness with a percentage of 80.00% which can be declared successful with a moderate learning achievement score students of 80.06. In addition, the use of HOTS questions can affect the level of students' critical thinking and learning outcomes. Likewise, the increase in class activity in the first cycle was 78.57%. In the second cycle, it increased by 85.71%; in the third cycle, it reached 92.86%. This study considered it successful if 80% of students achieved the minimum criteria for completeness. The application of the HOTS question-based Snowball throwing learning model in PAI subjects at SMPN 1 Tanggulangin was successful, as seen from the increase in the average value of students in each cycle.

Keywords
HOTS (higher order thinking skills), Learning Outcomes, Islamic Education, Snowball Throwing

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INTRODUCTION

Learning is a process of changing or improving the behavior and skills of an individual through practice or experience to acquire new skills and behavior (Su'aim & Neviyarni, 2021). Fakhrurrazi (2018) states that the learning process is a process of reciprocal relationships between teachers and students, which contains a series of implementations in educational situations to achieve specific goals. Meanwhile, according to Arfani (2016), learning is an effort to gain knowledge or intelligence, practice, and changes in behavior caused by experience. In addition, learning is an activity of self-development through experience.

It relies on one's abilities, and a teacher or instructor becomes guidance. Learning in the 2013 curriculum emphasizes students' knowledge skills and logical and systematic thinking. Thinking is part of the cognitive domain in Bloom’s language called the term higher thinking skills, namely the ability to think at a high level that is critical and creative (Romadlon et al., 2021). Bloom classifies the cognitive domain into six mental process levels: knowledge, understanding, application, analyzing, assessing, and creating. Bloom divides the level of cognitive levels into two, namely, lower-order thinking skills, including remembering (C1), understanding (C2), and applying (C3). In contrast, higher-order thinking skills include the levels of analyzing (C4), evaluating (C5), and creating (C6) (Anderson et al., 2001).

The learning process can be understood as an interaction between educators and students in educational situations to achieve learning objectives. Learning objectives are behaviors that students have or master after participating in a series of learning process activities. The success of the learning process lies in student learning outcomes. So the teacher must carry out a series of lessons that have been designed, such as the preparation of lesson plans (RPP) and the selection of learning models to achieve learning objectives, (Wahyudi & Agustin, 2018). Research by Hidayat states that teachers' pedagogical competence in preparing HOTS-based Islamic Religious Education (PAI) lesson plans is interpreted in the good category because, in its implementation, students are required to distinguish ideas or ideas, argue well, and be able to solve problems (Hidayat, 2020). However, it involves improvisation from the teacher so that the learning process runs smoothly and can achieve learning objectives. However, in learning activities, many students still do not participate actively and lack visual skills in the learning process. Because the learning system only emphasizes memorizing and remembering, learning activities are centered on educators so that students quickly feel bored and do not focus on learning (Su'aim & Neviyarni, 2021). HOTS-based learning for
students in PAI subjects can improve the quality of education to be more effective, efficient, fun, and meaningful, impacting learning outcomes and students’ ability to think critically (Ahmad et al., 2020).

Islamic Religious Education or Pendidikan Agama Islam (PAI) is one of the subjects taught in schools or madrasas from kindergarten, elementary school, junior high school to high school. The characteristics of PAI materials at various levels of education are different, starting from the material’s content, weight, and depth. Still, the PAI material includes the primary studies of Al-Qur’an and Hadith, Fiqh, Aqidah Akhlak, and History (Zubaidillah & Nuruddaroini, 2019). PAI aims to prepare students to become better human beings by having morals and believing, understanding, appreciating, and practicing the teachings of Islam through guidance and learning activities so that they become Muslim humans who continue to develop their piety and faith in Allah SWT (Firmansyah, Iman, 2019). Islamic religious education cultivates values of spirituality, nationalism, cooperation, and integrity. Cultivation of these values is needed, especially among junior high school students whose mindset is just developing by increasing literature about Islam and developing religious knowledge, to have a character by religious values in everyday life (Zulaikhah, 2019).

Based on the observations made in class VII students of SMPN 1 Tanggulangin, students’ learning outcomes in PAI subjects still need to meet the minimum completeness criteria (KKM) of 75. This result can be seen from the tendency of less active students in the learning process because students need help understanding the material. The conventional teaching methods only listen, record, and memorize material so that it has a dull and less exciting impression because it is teacher-centered so that students pay less attention to the teacher when the learning process takes place and makes students passive (Adilah, 2017). Lectures are the most frequently used teaching method at various levels and models of education, considering that this method is practical and efficient for subject matter that teachers cannot explain through practice (Wirabumi, 2020). Students often take permission to go to the toilet, sleep in class, and chat with their friends during the lesson. Students also rarely take notes on the material presented by the teacher. In delivering material in class, teachers only rely on textbooks that do not contain activities that support students to think at a higher level or HOTS and rarely utilize the LCD. There are still students who still need to remember to bring textbooks. These cases can affect student learning outcomes in PAI subjects in class VII-6 of SMPN 1 Tanggulangin.
To deal with this, an appropriate, attractive, and effective learning strategy is needed so that students become more active in the learning process and can master the lesson. The teacher can use several learning models in the learning process, so the students must adjust to the class conditions and the characteristics of the material to be delivered. The learning model used in HOTS-based PAI learning in this study uses the Snowball Throwing learning model. HOTS is high-level thinking that is critical, analytical, and logical. A study (Prihantoro & Suyadi, 2021) showed that students trained to think critically impact learning success. Based on previous research, the Snowball Throwing model will likely help students learn HOTS. Improve student learning outcomes. A study (Agustina & Akmal, 2015) mentioned that the Snowball Throwing learning model could increase student activeness and readiness in the learning process. Similar research written by (Ratnasari et al., 2021) said that the Snowball Throwing model could train students to think creatively in composing questions so that they can give birth to new ideas.

According to Ismail, followed by Hendra Hermansah (Susilawati et al., 2021), Snowball Throwing learning is one of the cooperative learning models. This learning model divides students into several groups, where each member makes a question shaped like a ball. The steps of the Snowball Throwing model are as follows: (1) the educator provides an explanation related to the material in advance and conveys the learning objectives. (2) students are divided into several groups, and each group leader comes forward to receive the tasks related to the study material. (3) each group leader returns to his group, and then the group leader explains to his group members the material presented by the educator. (4) each group member is given one sheet of work paper, and then students write questions about the material the group leader has explained. (5) paper containing the question is squeezed like a ball and thrown to another group for about 5 minutes. (6) after students get one ball containing questions, then students are allowed to answer the questions obtained on the ball-shaped paper. (7) evaluation of learning activities. (8) closing (Wahab et al., 2022).

Implementing learning using the Snowball Throwing model has advantages and disadvantages (Mariyaningsih & Hidayati, n.d.). The benefits include:

1. It creates a fun learning atmosphere, like playing while learning.
2. Students get the opportunity to develop their thinking skills because they are allowed to ask questions.
3. Students are actively involved in learning activities.
4. Achieving three aspects of learning cognitive, affective, and psychomotor. Meanwhile, the weaknesses of using the *Snowball Throwing* learning model are:

1. The teacher explains the lesson briefly.
2. It requires a long time.
3. Very dependent on the student’s ability to understand the material so that what students master is only a little.

Several studies have been conducted previously regarding the application of the *Snowball Throwing* learning model that can improve learning outcomes, including research that conducted by Hisbullah and Firman regarding the application of the *Snowball Throwing* learning model in Natural Science subjects in elementary school (Hisbullah & Firman, 2019), also research conducted by Arina on the application of the *Snowball Throwing* learning model can increase interest in learning in elementary schools (Arina, 2020), also in study conducted by Yanti on the application of the *Snowball Throwing learning model* and charta media to junior high school students (Yanti, 2019), research conducted by Dianto on the application of the *Snowball Throwing learning model to MA students* (Dianto, 2020), also Apriyanto’s study on the application of the Snowball Throwing learning model and talking stick (Apriyanto, et al., 2020), also the study by Suria Oktaviani, Md Dwi Suwatra, I Wyn Murda and Nym, that 5th grade students using the *Snowball Throwing* learning model assisted by audiovisual media showed better results than those who did not use it (Suria Oktaviani, et al., 2019).

However, previous studies have yet to demonstrate the utilization of PAI learning based on HOTS questions. So, in this study, researchers conducted research on applying the *Snowball Throwing* model based on HOTS questions in improving learning outcomes, especially in PAI subjects.

The research described above is a reference for researchers to make updates. Based on the exposure of previous research, there are similarities in research where the application of the *Snowball Throwing* model in learning can improve learning outcomes developed to improve the ability to remember or memorize, understand, and apply. At the same time, this study has a research distinction from the previous study based on HOTS questions developed from the Ministry of Education and Culture’s package book (Ministry of Education and Culture, 2017) on the chapter of the Qur’an and Sunnah as a guide to life. It is known in Bloom’s taxonomy that HOTS questions are in the C4-C6 realm, which requires students’ ability to analyze, evaluate, and create, requiring sharper and more critical thinking to solve something difficult.
Saputra’s research, 2016 cited by (Salsabila & Tambunan, 2022), states that HOTS questions are students’ skills for higher-level cognitive thinking to develop various mental concepts and methods that refer to Bloom’s C4-C6 taxonomy, namely the ability to analyze, evaluate, and create. With high-level thinking skills, students can differentiate ideas, argue well, problem-solve, and think critically, logically, and creatively.

Based on the background described above, applying the Snowball Throwing learning model based on HOTS questions improves PAI learning outcomes in junior high schools. The gap between this study and the previous studies is that this research is to apply the Snowball Throwing learning model based on HOTS questions in PAI learning. In addition, giving HOTS questions to students can train students to think critically.

METHOD

This research method uses classroom action research (CAR). CAR is a process of studying problems in the classroom through self-reflection to solve a problem by taking various planned actions in real situations and analyzing any treatment effects (Sanjaya, 2016)—this research subject at SMPN 1 Tanggulangin, Sidoarjo, East Java. The object of this research is class VII-6 students, with 36 students consisting of 18 boys and 18 girls.

This research consists of 3 cycles, each carried out in one meeting. Each cycle must have four stages, namely (1) Planning (Plan), (2) Implementation of action (Action), (3) Observing, and (4) Reflecting, which is carried out repeatedly (Wahyudi & Agustin, 2018). First, researchers plan this lesson activity: identify the subject, make lesson plans (RPP), prepare the learning tools for the Snowball Throwing model, provide questions at the beginning and end of the lesson, prepare learning materials, and make observation guidelines for assessing the learning process. Second, the implementation of the lesson using the Snowball Throwing Model. Third, observation activities by an observer using the prepared observation sheet. The results of the observations were then discussed with the PAI subject teacher to find solutions to problems that arose during the learning process. Fourth, reflection analyzes the results in every cycle using the Snowball Throwing model, which is then used as the basis for implementation in the next cycle (Romadlon et al., 2020).

Data collection techniques used in this study include observation, interviews, tests, and documentation. The researcher observes to determine students' processes or conditions during PAI learning in each cycle. The interview method in this activity involves interviews between PAI
teachers and seventh-grade students to determine students’ processes or conditions during PAI learning in each cycle. After applying the Snowball Throwing method in PAI subjects, the researcher conducted the test to obtain data on student learning outcomes. Researchers used the documentation method to obtain an overview of matters related to the teaching process by applying the Snowball Throwing model.

The data analysis technique used the descriptive analysis method concerning (Miles et al., 2018), which consists of three streams of activities: data condensation, data display, and conclusion drawing. First, data condensation activities by selecting, focusing, simplifying, and transforming raw data from field notes, interviews, and documentation. Second, data display activities by presenting data in tables, graphs, and matrices to make it easier to understand and allow the researcher to conclude. Third, the activity of concluding is concluding the initial data collected.

**Figure 1. Schematic of Classroom Action Research**

![Figure 1. Schematic of Classroom Action Research](image)

**FINDINGS AND DISCUSSION** *(Palatino Linotype 11, Space 1.5, Justify)*

**Findings**

The author will reveal and analyze data related to the application of the Snowball Throwing Learning Model in Improving PAI Learning Outcomes at SMPN 1 Tanggulangin, as follows:

There are three cycles in this research, and at the end of each lesson, there is a test to measure learning achievement. Each cycle consists of four stages, namely (1) Planning, (2) Implementation of actions, (3) Observation (4) Reflection. We explain it as follows:
In the planning stage, researchers prepare lesson plans, teaching materials, learning tools using the Snowball Throwing model, learning techniques, HOTS-based questions related to the Qur’an and Sunnah as a guide to life, and checklist documents to observe teachers and students in learning activities.

At the implementation stage, the teacher explains that learning at this meeting and the next will be applied to the Snowball Throwing learning model, where learning is more student-centered, with more fun concepts. Furthermore, the teacher conveyed a little material related to the chapter of the Qur’an and Sunnah as a guide to life. Then divide students into five groups, each group consisting of 7 students. Each group gets an assignment related to the chapter of the Qur’an and Sunnah as a guide to life. The teacher provides a stimulus by asking HOTS questions to bring out analytical and critical thinking. The question is to bring out critical thinking attitudes in students.

For example: "Allah sent down four books: the Torah, the Zabur, the Gospel, and the Qur’an. Why did Allah only command Muslims to follow the Qur’an as the main source of law for Muslims and not the other books?", "Why is the Sunnah, which is not the word of Allah, the second source of law for Muslims after the Qur’an?", "We are commanded to obey and obey Allah Swt. The form of obeying Allah is to follow the teachings of the Qur’an while obeying the Prophet by practicing his sunnah and obeying ulil amri. Why are we commanded to obey ulil amri as long as it does not contradict the shari’a?"

From several stimulus questions posed by the teacher, each student can argue, provide criticism, input, and make suggestions. Next, the teacher distributes sheets of work paper to each student. Each student in a group writes one question related to the material given through the worksheet the teacher distributed. The working paper containing the question is squeeze-shaped like a ball, then thrown to each other outside the group. Students are allowed to answer related questions from the ball they get. At the end of the meeting, students work on HOTS-based test questions related to the material learned to evaluate learning outcomes at each meeting to determine the extent of students’ understanding.

At the observation stage of cycle I, learning outcomes were still low. In the first meeting, many students still needed to be corrected in asking and answering the questions they got and seemed to need help answering test questions at the end of each meeting. This problem is because students need help understanding the questions and need more focus in the learning process.
At the reflection stage, based on the observations in cycle I during the learning process, some students have yet to reach the KKM. 9 students were complete (25.71%), and 24 students were not complete (68.57%). From the results of this first cycle, the researcher saw that students needed to be used to providing arguments to the questions given. Other factors that caused the target not to be achieved were that students had differing views on answering the teacher's test questions at the end of the lesson and the attitude of relying on each other; this affected the learning outcomes that have yet reached the target.

After reflecting and analyzing the results of the learning process in cycle I, the researchers improve the lesson in cycle II. The researcher compiled lesson plans, teaching materials, and learning tools using the *Snowball Throwing* model, learning techniques, HOTS-based questions, and checklist documents to observe teachers and students in learning activities. In cycle I, students must be more accustomed to presenting good arguments. In cycle I, students needed to be more accustomed to presenting their arguments well. The other shortcomings, students rely on each other. In cycle II, the teacher will be in control of appointing students to answer questions to improve the shortcomings in the previous cycle.

In the implementation stage of cycle II, after the researchers developed the plan, the researchers carried out corrective actions in the classroom by the planning stage (RPP). As in the previous cycle, the teacher divided students into five groups, each with seven students. Each group gets an assignment related to the chapter of the Qur'an and Sunnah as a guide to life. At the beginning of each lesson, the teacher provided a stimulus by asking HOTS questions. The question is to bring out critical thinking attitudes in students. Furthermore, the teacher uses the Snowball Throwing model to carry out the learning steps.

At the observation stage of cycle II, learning outcomes have improved. In cycle II, students began to be active in the learning process in class when the learning process takes place. Students contribute actively and confidently in presenting arguments, asking questions, thinking critically, and making suggestions, and students also begin to adjust to the new learning model. However, improving the learning outcomes obtained in cycle II still needed to reach the target.

In the reflection stage in the cycle II learning process, the implementation of the *Snowball Throwing* model shows that the number of student learning completeness has increased. At the end of the cycle, 21 students completed it (60.00%), and 17 students still needed to complete it (40.00%) after observing 17 students who still needed to reach the minimum score due to a lack of ability to
understand the test questions.

The researchers identified the problems from the previous cycles. In cycle I, 24 students still needed to be completed, while in cycle II, 17 students still needed to achieve the target. The reason was that students had difficulty understanding HOTS-based questions. So that in cycle III, the teacher explained the terms that were difficult for students to understand. Furthermore, the researchers prepared lesson plans, teaching materials, learning tools in the *Snowball Throwing* model, learning techniques, HOTS-based questions, and checklist documents to observe teachers and students in learning activities.

At the implementation stage of cycle III, researchers carried out corrective actions in the classroom by the planning stage (RPP). As in the previous cycle, the teacher divided students into five groups, each with seven students. Each group gets an assignment related to the chapter of the Qur’an and Sunnah as a guide to life. At the beginning of a lesson, the teacher stimulus student’s minds by asking HOTS questions. The question is to bring out critical thinking attitudes in students. Furthermore, the teacher implemented the learning steps using the *Snowball Throwing* model.

In the observation stage, the results of students’ learning completeness in cycle III increased compared to the previous cycles. Providing stimulus questions related to HOTS questions at the beginning of the lesson can influence students to think in an organized manner, critically and logically. In cycle III, students’ learning outcomes have met the minimum criteria (KKM) at the end of each meeting in each cycle, given HOTS-based questions to determine the overall level of student understanding during the learning process.

At the reflection stage obtained in cycle III during the learning process, the results of the implementation of the *Snowball Throwing* model show that the number of student learning completeness has increased by providing stimulus questions related to HOTS questions at the beginning of each lesson. In cycle III, the number of students who completed was 28 students (80.00%), and seven students not finished (20.00%). In the reflection stage, HOTS questions are suitable for students with good literacy skills, while students with poor literacy need to practice further.

The average score in cycle I was 62.31, while in cycle II was 72.03; the result increased in cycle III was 80.06; this shows an increase in student learning outcomes after the implementation of learning using the *Snowball Throwing* learning model based on HOTS questions. Researchers determined that the study was successful if 80% of students completed the standard minimum.
Using the *Snowball Throwing* learning model based on HOTS questions in PAI subjects at SMPN 1 Tanggulangin is likely successful, as seen from the increase in the average score of students in each cycle. Moreover, the ability of students to think critically can affect the learning outcomes achieved by students. Research conducted by (Safna & Wulandari, 2022) stated that the ability to think critically could significantly affect learning outcomes.

Learning outcomes have improved from the observations during the learning process from cycle I to cycle III. In cycle I, learning outcomes were not optimal because many obstacles were still faced. However, learning outcomes significantly increase in cycles II and III—more details are in the following table.

**Figure 2.** Diagram of Average Scores and Results of PAI Learning Completeness

![Diagram of Average Scores and Results of PAI Learning Completeness](image)

Based on the diagram above, each cycle’s average student learning scores increased. Although the completeness of student learning outcomes in cycle I still need to improve. This is because the achievement of student learning completeness has yet to reach the minimum (KKM) score of 75. Therefore, following up in cycles II and III is necessary, and the average student score has increased significantly, accompanied by an increase in the completeness of student learning outcomes, as in the following diagram:
In addition, the Snowball Throwing learning model is also effectively used to increase student activity in the learning process (Mahmudi & Nadhifah, 2020). The average value of student activity during the Snowball Throwing learning model is obtained based on the observations in the figure below.

Based on the picture analysis above, cycle I show that student activity in applying the Snowball Throwing model in PAI subjects still needs to be improved. During the lesson, many students still need to contribute more actively to each group and rely on each other, needing more confidence in conveying ideas, providing criticism, and answering questions. Furthermore, using the Snowball Throwing model in learning is new to students, so the result in cycle I reached 78.57%.

In cycle II, the results of observations of student activity showed an increase. In cycle II, it shows an increase in student activities, such as being able to argue, students can express ideas, and ask questions. However, there are still some students who rely on each other. The percentage results
obtained in cycle II increased to 85.71%.

In cycle III, students’ enthusiasm and activity showed more progress. The increase can see in students who participate actively in each discussion group and are brave and confident in expressing opinions and asking and answering questions. In cycle III, the resulting increase to 92.86%. The researcher sees the development of good cooperation in each group, learning outcomes, and student activities increased during the learning process. This result shows that applying the Snowball Throwing learning model based on HOTS questions can improve PAI learning outcomes at SMPN 1 Tanggulangin.

Discussion

The choice of learning model applied in the teaching and learning process is an important thing that every educator must consider. Selecting a suitable learning model to convey the material well will affect student learning outcomes. The Snowball Throwing model is among the several learning models in the learning process.

In this study, the authors applied the Snowball Throwing learning model based on HOTS questions in improving PAI at SMPN 1 Tanggulangin in the chapter of the Qur’an and Sunnah as a guide to life with III cycles. Giving HOTS questions can train students to think critically at a high level which can affect learning outcomes. The data show that applying the HOTS question-based Snowball Throwing model in implementing cycle III obtained a score of 80.06 with 80% completeness. Applying the Snowball Throwing learning model based on HOTS questions can improve PAI learning outcomes based on the data above.

Research conducted (Hisbullah & Firman, 2019; Arina, 2020; Dianto, 2020; Apriyanto et al., 2018; Suria Oktaviani et al., 2019) states that the application of the Snowball Throwing model can improve learning outcomes. As well as research conducted by (Pardede et al., 2020) also stated that using HOTS questions could affect students’ critical thinking skills and learning outcomes, while (Ma’ruf et al., 2019) stated that the use of HOTS questions can affect learning outcomes. The results of this study indicate that applying the Snowball Throwing model based on HOTS questions can train students to think critically, analytically, and logically, impacting student learning outcomes. However, applying HOTS questions is suitable for students with good literacy skills, while students with poor literacy need further exercise.
CONCLUSION

This research is a class action research on PAI subjects in the chapter of the Qur’an and Sunnah as a guide to life using the Snowball Throwing learning model based on HOTS questions. The average student learning completeness is 80% of the standard minimum completeness criteria or KKM, namely 75, so all students have achieved the criteria. This result shows that applying the HOTS question-based Snowball Throwing learning model is adequate. HOTS questions are suitable as teaching materials to help teachers and students learn.

Based on students' learning outcomes in class 7 of SMPN 1 Tanggulangin, the average score reached the minimum completeness. The average value of student learning outcomes is 80.06, showing that applying the HOTS question-based Snowball Throwing learning model in the Qur’an and Sunnah as a Guide to Life chapter improves learning outcomes.

REFERENCES


