Increasing Interest in Learning Mathematics with the Make-A-Match Learning Model for Class II Students at Al-Azhar Gampengrejo Islamic Elementary School

Diana Amalia¹, M. Arif Khoiruddin²*

¹Tribakti Lirboyo Islamic University
¹damaliaa22@gmail.com, ²arif@uit-lirboyo.ac.id

*Correspondence

Abstract

Mathematics has an important role in life, especially in the development of technology and science. Given the importance of mathematics, this subject is taught in schools, starting from early childhood education to high school, including in tertiary institutions. For some students, mathematics at school is a subject that is considered arduous and frightening. The teacher's role is important and necessary to increase students' interest in learning, especially in mathematics. Teachers are required to be precise in using effective models and being able to influence students to actively participate in the learning process to the fullest and increase their learning outcomes. This study aims to increase students' interest in learning with the Make a Match learning model which focuses on students interacting and collaborating in developing their knowledge through the concept of playing while learning. The method used in this study uses classroom action research. Starting from planning, implementation, observation, and reflection. The use of make-a-match in mathematics with the mathematics of division, and multiplication with numbers, as well as the introduction of flat shapes and their results can increase student learning interest by 88.8% from previously only 58.8% by using lectures.

INTRODUCTION

Learning mathematics in schools is always interesting to study and research more deeply, especially at the elementary school level because there are differences in the characteristics of the nature of children and the nature of mathematics itself. Elementary school students experience development in the level of thinking that is even still not formal, while mathematics is a deductive science, formal, axiomatic, symbolic language, abstract, and other. The differences in these characteristics are special needs that teachers must have to bridge the world and the world of mathematics (Karso, 2014).

Mathematics as a basic science has contributed to the advancement of technology and science. Given the importance of mathematics lessons, this lesson is taught in schools starting from Early Childhood Education to High School as well as in tertiary institutions.
For some students, mathematics at school is a subject that is considered arduous and frightening, and a few students even avoid this lesson. This is caused by many things, one of which is that the learning activities carried out by the teacher at school may be boring, and many formulas or calculations make students no longer interested and even hate them (Aeni et al., 2022).

Even though the purpose of giving mathematics lessons to students, especially at the elementary school education level, is to equip and foster students' thinking skills logically, systematically, critically, analytically and creatively, and actively (Susanto, 2013). Mathematics was taught from an early age to the top level and even college mathematics was used to solve existing problems. Such as raising an attitude of respect in life by having curiosity, paying attention, and being tenacious and confident in solving the problems faced (Karso, 2014).

The role of a teacher is important in increasing student learning interest, especially in mathematics. Teachers are expected to be able to use learning models appropriately so that they can influence students to be more active in learning and the results achieved can be maximized and continue to increase (Siregar & Sentosa, 2015). One of the learning models used to increase students' interest in learning mathematics is by using make a match which is a cooperative learning model that places more emphasis on students being able to work together and develop knowledge through learning activities while playing (Wulandari et al., 2018). Learning that is done in pairs (make a match) was introduced by Lorna Curran. One of the advantages of this learning model is that students can find partners while practicing concepts and topics in pleasant conditions.

Making a match requires students to find a partner according to the problem cards that are obtained freely through a lottery. The cards obtained are prepared by the teacher and then distributed to each student. The class students are grouped into two pairs, one group is responsible for answering problems and the other group brings question cards. Make a match is a form of learning model that invites students to find answers to questions from their partner through the concept of paired card games with a predetermined duration limit, students are invited to think, work together and provide motivation to each other in the learning process (Aeni et al., 2022).

The make-a-match learning model encourages students to be active and help each other in mastering learning to achieve maximum achievement (Isjoni, 2012). With the application of the make-a-match learning model, it is hoped that students will not only listen to lectures from the teacher, but students will be more active, motivated, and happy in participating in mathematics lessons. The advantages of Make a Match include being able to increase student learning activities cognitively or physically. Because there is an element of play in it, this game model is fun to increase students' understanding of the material being studied and increase student learning motivation to train students to appreciate study time. Meanwhile, the weakness of making a match is that when this strategy is not prepared properly, a lot of time is wasted and students are prone to noise when looking for partners (Huda, 2011).
Previous research on the effectiveness of using the make-a-match learning model as applied to portfolio-based science lessons in fifth-grade elementary school students whose results influenced student learning outcomes. The results of this study suggest that students are always active and creative so that they can be maximized, besides that it is suggested for other lessons in elementary school by preparing supporting tools (Wulandari et al., 2018). In other research on the effectiveness of the make-type cooperative learning model a match is very effective in improving mathematics learning for students in class I at SD Muhammadiyah and the results can be seen through the teacher and student activity sheets (Aeni et al., 2022).

For students, interest in learning is a part that encourages students to take part in the learning process carried out by the teacher which does not just appear. Learning conditions also take into account and pay attention to student interests by providing freedom and opportunities independently to participate actively in the process of teaching and learning activities ongoing. The indicators used to measure students' learning interests are their interest in learning, attention, and motivation in learning (Nurhasanah & Sobandi, 2016).

The interest in learning here is like an example of a student having an interest in mathematics, it will appear in his feelings to always have and be interested in the lesson. Then be diligent and continue to understand the knowledge related to it, and then will follow the lesson with great enthusiasm without any burden on him. Then what is meant by student attention is concentration or mental activity on the observations made and putting aside other things, students will pay attention in learning and focus on what is learned. Then motivation is an effort made to carry out learning actions in realizing behavior in achieving the expected goals through the learning interaction process (Nurhasanah & Sobandi, 2016).

Al-Azhar Gampengrejo Islamic Elementary School is in the Kediri district. Based on information obtained from teachers who teach, students often experience problems related to decreased interest in learning, especially in participating in mathematics lessons which have an impact on decreasing learning outcomes and learning that is not optimal. This is the same as what is experienced by students in general in elementary schools, where mathematics is scary, so this lesson is difficult to accept. There are many real problems and one of the indications is that the teacher when teaching is still monotonous and does not attract attention, especially in mathematics lessons. Then students experience difficulties in understanding their lessons, and the teacher's low mastery of the use of teaching aids and existing learning media is also a problem.

From the description, this Classroom Action research was carried out to find out more about how to use the make-a-match learning model in mathematics to increase students' interest in learning at Class II Al Azhar Gampengrejo Islamic Elementary School.
METHOD

This research approach uses Classroom Action Research, an action in examining activities that are intentionally carried out and occur in class (Suharsimi Arikunto, 2006). Classroom action research by involving researchers directly in the research process starting from monitoring, recording, and data collection process starting from the beginning to reporting the results (Triantio, 2011). The research design used includes planning, acting, observing, and reflecting. In this research, what will be improved is students' learning interest in the process of learning mathematics regarding material about flat shapes using the make-a-match method (Triantio, 2011).

The research location is Al Azhar Islamic Elementary School which is located at Jalan Diponegoro No. 112 RT/RW 01/03 Ngebrak Village, Gampengrejo District, Kediri Regency. The data collected in this study was through scores of students' work on practice questions. Verbal statements from students and teachers that were obtained through the results of interviews related to the learning process carried out and recording of field data from the results of a series of student activities that took part in the learning process.

The subject from this study were grade II students at Al-Azhar Gampengrejo Islamic Elementary School with a total of 18 people with details of 6 females and 12 males. This will be used as a basis for consideration to find out more deeply how the level of success of students in the learning process is given by taking action through applying the make-a-matching method in the learning process in mathematics as the primary data source.

Secondary data sources come obtained indirectly from data collectors. The data source is obtained from learning outcomes collected from other people as supporting data. In this study, secondary data sources were the head of the madrasa and the administration of Al-Azhar Gampengrejo Islamic Elementary School. The types of secondary data used in this study are activities, places or locations, documentation, and archives.

RESULTS AND DISCUSSION

Planning is the initial stage or step that is carried out by the researcher before going directly into the classroom, the researcher previously made initial preparations such as consulting and discussing with the Head of the Madrasa at Al-Azhar Ngebrak Gampengrejo Islamic Elementary School. This was done by researchers so that researchers could find out more about the characteristics of students in class II and get directions from the Head of the Madrasah which were taken into consideration in the planning process.

After the researchers conducted discussions, for the next stage the researchers conducted a study related to learning devices with the goals achieved. In this classroom action research, the position of the researcher doubles as a math teacher with two-dimensional figure material. Then after that, the researcher makes a lesson plan which the researcher will use as a foundation for implementing learning in class. Researchers also prepare learning media that will be used when in class, then researchers also prepare pretest and posttest questions which totaled 5 multiple choice questions for each test.
The implementation of the action took place with an allocation of $2 \times 35$ minutes. The following description of the implementation of the actions in cycles I and II begins with initial activities of the teacher greeting, then inviting students together to pray and take attendance for student attendance. At this stage, the teacher conducts questions and answers regarding material about the two-dimensional figure that is known by students. The teacher also gave a pre-test which consisted of 5 multiple-choice questions about the material that have taught.

In the core activity, the teacher explains material related to two-dimensional figures, their characteristics, and various kinds of plane shapes which include squares, rectangles, triangles, and circles. Using the lecture method, the teacher also writes on the blackboard so that students can easier to repeat the material that has been delivered by the teacher. After delivering the material, the teacher invites students to ask questions about material that can’t be understood. At the end of the activity, the teacher gives a post-test question which contains 5 questions related to flat shape material, then the teacher invites students to read prayers together.

Observing is carried out by researchers to observe the ongoing process of learning. Some students caught sleepy, and some were not very focused on paying attention to the material conveyed by the teacher. Judging from the results of the post-test questions given at the end of the lesson, many students had not completed the answers to the questions given, including the quiet class atmosphere which made students less enthusiastic about participating in mathematics lessons.

Reflecting is done by reflecting on the results of the test before using make a match. Learning is not suitable for attracting students' interest in participating in the mathematics learning process which seems monotonous, so they cannot understand properly and maximally the material presented. This can be seen from the lack of enthusiasm of students to pay attention to the lesson when the teacher is explaining the material and from the results of the tests that have been carried out.

In response to the results of the tests that have been carried out, then the following considerations are made to improve: 1). Need to increase interest in learning by considering the characteristics of students who are in class II by using the make-a-match learning model. 2). Conduct reflection at each meeting to measure the extent to which the level of success of learning that has been implemented in the class. 3). Then the researchers decided to make improvements in learning in mathematics about flat shapes by using the make-a-matching model to increase student learning interest. For mathematics material, the researcher applied Minimum Criteria Completeness > 70 to find out the differences before using the make-a-match learning model and after applying the make-a-match model.

The implementation of learning mathematics by applying the make-a-matching model begins with observation. It is known from the initial data that student learning completeness in mathematics is still at 50%. With 9 students who have completed and 9 others who have not completed. So it is hoped that the application of the make-a-match learning model in mathematics lessons can attract and increase students' interest in
learning to follow the learning process. Cycle I was carried out with a time allocation of $2 \times 35$ minutes. The material presented is an about two-dimensional figure which includes the characteristics of various flat shapes such as squares, rectangles, triangles, and circles.

Based on the results of observations, the learning process that has been carried out is by the scenarios listed in the Learning Implementation Plan. The teacher's steps to carry out the learning process are 1) the teacher greets when entering the class and invites students to pray together and checks the student attendance list; 2) Then the teacher explains the material and conducts a question and answer process; 3) the next stage the teacher provides direction and motivation and concludes learning today.

In the implementation of this first cycle, the teacher has not maximized to be able to foster interest in learning mathematics, this can be seen by making observations when the teacher is explaining the material, many students look daydreaming, not paying attention, and some are even sleepy. From a learning process like this when given a posttest, many students still have not finished learning. In cycle I, it was known that 9 students completed the learning, and 9 students did not complete learning and it can be seen with a class average value of 58.8.

Then in the next stage in cycle II, it is carried out with a time allocation of $2 \times 35$ minutes. The material discussed is about two-dimensional figure, their characteristics, and various kinds of flat shapes. In cycle II, students are not only given material and then answer post-test questions, but students are also invited to learn using the make-a-match learning model to increase student interest in learning with the concept of learning while playing. Before the material begins, the teacher explains in advance that after the material is delivered, students will be divided into pairs and each student will be given a question card or answer card.

Then students are asked to find a partner from each question card or answer card by giving a predetermined time limit. When hearing this explanation, students were very enthusiastic about listening to the material and enthusiastic about participating in learning mathematics.

The learning steps in cycle II carried out by the teacher are 1) the teacher greets when entering class and invites students to pray together and check student attendance; 2) the teacher repeats the math material that was presented at the previous meeting; 3) the teacher conveys material and explains to students regarding learning using make a match; 4) the teacher carries out mathematics learning using make a match; 5) the teacher invites students to conclude today’s material.

The results of this classroom action research, learning that has been done in mathematics using make a match is proven to increase student learning interest by increasing learning outcomes by 88.8% from the previous result of 58.8%.

Based on the results of the implementation of cycle I and cycle II, the make-a-match learning model is proven to be able to increase student learning interest in mathematics at Al-Azhar Gampengrejo Islamic Elementary School in class II students and this does not only have an impact on learning interest but can also have an impact on
improving student achievement results. Students do not only listen to monotonous lectures from the teacher but students are invited to learn together while having fun playing.

The results of this classroom action research are in line with the advantages of using the make-a-matching method which can increase student activity in learning both cognitively and physically in which there are elements of fun games and can increase students’ understanding and interest in learning (Huda, 2013). In addition, interest in learning increases if the learning process is interesting and children play an active role in the teaching and learning process (Slameto, 2015).

CONCLUSION

Pembelajaran matematika menggunakan model pembelajaran make a match di Madrasah Ibtidaiyah Al-Azhar Gampengrejo kab. Kediri pada siswa kelas II pelajaran matematika yang meliputi pembagian, perkalian dengan angka-angka, serta pengenalan terhadap bangun datar beserta ciri-cirinya dapat meningkatkan minat belajar siswa dengan prosentase sebesar 88,8% dari sebelumnya yang hanya di angka 58,8%. Pada model pembelajaran ini siswa diajak belajar sambil bermain untuk mencari pasangan dari sebuah kartu soal dan kartu jawaban.

Mathematics learning uses the make-a-match learning model at Al-Azhar Gampengrejo Islamic Elementary School in class II students in mathematics which include division, multiplication with numbers, and the introduction of two-dimensional figure and their characteristics can increase students’ interest in learning with a percentage of 88.8% from previously only 58.8%. In this learning model students are invited to learn while playing to find a partner from a question card and an answer card.

REFERENCES


Diana Amalia and M. Arif Khoiruddin | Increasing Interest in Learning Mathematics…


