The Increase of Mathematic Achievement Thought Make A Match Method at The Fourth Grade Student of SDN Pakunden in The School Year 2020/2021

1st Dwi Retnaningsih[1], 2nd Ristiana Dyah P[2], 3rd Prihatmanto[3]

{dwiretnaningsih61@gmail.com[1], ristianadyah@yahoo.com[2], priebms@gmail.com[3]}

[1.2]Master of Basic Education, Universitas Muhammadiyah Purwokerto, [3]SDN Pakunden

Abstract. This Classroon Action Research is about the increase of mathematic achievement on plane figure subject at the fourth grade students of SDN Pakunden. It was held done in two cycle through Make A Match Method. In the first cycle Make A Match Metode was held classicaly.The sevond cycle was held in groups doing practise with Make A Match Method on plane figure subject. Finaly by using the Make A Match Method, the mathematic achievement of the students were increase and also was impact to increase students' active in the fourth grade at SDN Pakunden. According to the data it was found that there were an increasing students achievment. From the first condition there were 4 students who complete in study then changed in the first cycle to 13 students and the second cycle to 19 students who completed it. According to data analysis it was found that trough Make A Match Methode could increase the mathematic achievement at the fourth grade students of SDN Pakunden

Keywords: Cooperative learning, Make A Match Method, Achivement.

1. Introduction

The monotony of the method or media used by the teacher can lead to student boredom in learning which in turn can reduce student motivation, interest in learning and learning outcomes. It is clear from these conditions that the learning process cannot improve student learning outcomes in the learning process. Education in elementary schools is the foundation of education at the next level. Each existing subject is the forerunner of learning that will be studied in advanced education[1].

The subject that often becomes a frightening specter is mathematics. Mathematics subjects usually make students discouraged because they have to meet the numbers and the right results. Mathematics is one of the most important subjects in education because mathematics is a basic science that can be used in various subjects taught at school. That can be used in various subjects taught at school. Activities Mathematics learning activities are not oriented towards mastery of mathematical material alone, but mathematical material is positioned as a tool and means for students to achieve competence[2].

ICONESS 2023, July 22-23, Purwokerto, Indonesia

DOI 10.4108/eai.22-7-2023.2335131

By looking at the problems found, the researcher took the initiative to use a different learning model than before. It is possible to increase the results and activeness of students in the learning process. One way that teachers can do to improve mathematics learning outcomes is by using the Make A Match cooperative learning model during classroom learning.

SD Negeri Pakunden with a total of 20 students in class IV in 2020/2021, with 10 boys and 10 girls. The twenty-nine students have intelligence and reasoning on different teaching materials. There are students who are explained enough once, there are also students who have to be explained many times before understanding the material. Researchers realize the lack of understanding of the material being taught because students do not understand what is being taught. Students do not want to ask questions or are embarrassed to ask the teacher during the teaching and learning process, so that students are less active.

The results produced on average from the twenty-nine students are still less than the Minimum Mastery Criteria (KKM). KKM in semester 1 mathematics is 65 while the average student learning outcomes is 59. Researchers consider it necessary to do Class Action Research on Flat Shape material which is carried out to improve learning outcomes and student learning activeness by using cooperative learning models (cooperative learning) make- a-match models[3]. One of the benefits of the cooperative learning model type Make A Match cooperative learning model, namely problem solving can help students to develop their new knowledge and responsible in the learning that is done[4].

Cooperative learning type make a match make learners are asked to find pairs of cards that are answers or questions on the cards held before the time limit, and who can cards held before the time limit, and those who can match their cards are given points, cards are given points. One of the advantages of this technique is that learners find a partner while learning about a concept or topic in a fun atmosphere[5].

Mathematics is one of the subjects that students are less interested in. The reality on the ground shows that Mathematics is considered a scary subject by most high school elementary school students[6]. The results of observations in class IV, researchers obtained data from 20 students, only four students who enjoyed Mathematics. When learning Mathematics there are students who are less enthusiastic, lazy to count, get bored quickly, and most find it difficult to learn Mathematics. Students are embarrassed to ask even though the subject matter has not been understood, at the end of the lesson the evaluation results of many students have not reached the Minimum Completeness Criteria. Based on the results of the initial condition test on the basic competence "Building Flat", still low, an average value of 59 is obtained.

These problems are caused by various factors including: teachers, students, learning methods, educational support facilities and infrastructure. Factors from the teacher include the lack of interest in the teaching method which only uses the lecture method, learning that tends to be monotonous and boring, the class is dominated by the teacher and does not provide opportunities for students to ask questions, and the teacher does not use visual aids in learning. This situation is exacerbated by some teachers who teach Mathematics only by requiring students to memorize formulas[7]. Teachers only pursue curriculum targets that must be met without paying attention to students' understanding of the material provided. Teachers feel pressed for time resulting in shallow knowledge and in the end students' learning abilities do not match what is expected.

By applying the Make a match learning model to the learning process, it can improve student learning outcomes, can improve student learning outcomes[8]. This is because in the learning process students pay attention very well and students are very enthusiastic. It can be seen that student learning outcomes are very good. This research shows that the group of students who taught by using the Make a match learning model is better than group of students taught using a model that has not been varied[9]. In addition to the learning model applied, learning also uses media to attract students' attention to follow the learning and in order to attract students' attention to follow the learning and fun.

2. Research Methods

This study uses class action research. Classroom action research is a research activity aimed at several target subjects, with the aim of improving learning conditions in the classroom and thus improving the quality of learning[10]. The research subjects were all fourth grade students at Pakunden Public Elementary School, Banyumas District, Banyumas Regency for the 2020/2021 academic year. The number of male students is 10 and female students are 10 children, the total number of students is 20 children. The research was carried out in April 2021. Each cycle consists of planning, acting, observing and reflecting. The implementation schedule is that Cycle I will be held on 19-20 April 2021 and Cycle II will be held on 26-27 April 2021.

3. Research Results and Discussion

3.1 Cycle I

Based on the results of cycle 1 tests, it can be seen that there were 20 test takers, only 13 students who scored above the Minimum Completeness Criteria (KKM). There are 65% of students who complete the learning cycle 1. For other students, 7 students do not meet the Minimum Completeness Criteria (KKM). There are still students who have not finished in cycle 1 because there are still students who play alone during learning. They did not listen to the explanation given by the researcher. This causes the seven students have not finished yet. Comparison of Pre-Cycle and Cycle 1 can be seen in the following figure:

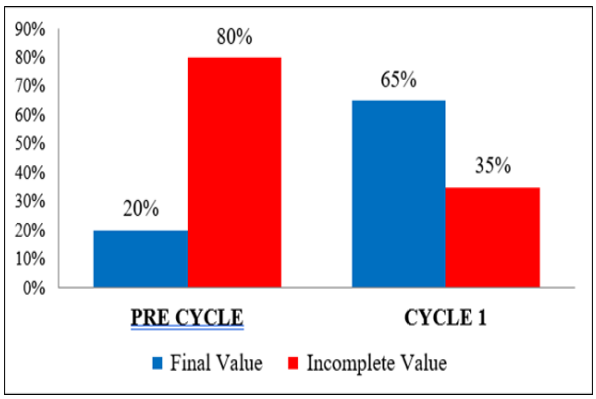

Fig. 1. Result of Mastery Learning Pre-Cycle and Cycle I

From the results of the data above, it can be explained that in the research before the cycle there were still 16 students or 80% of students who had not yet completed. There are only 4 students or 20% of students get a complete score. There are still many students who have not completed the Pre Cycle because researchers are still using conventional learning. In cycle 1 the researcher changed the learning model from the conventional to the Make A Match cooperative model. In cycle 1 it was found that the results of student learning completeness increased. From twenty grade IV SD Negeri Pakunden, 13 students or 65% of students passed. However, there are still 7 students or 35% of students who score below the specified KKM.

3.2 Cycle II

To increase the average value of the research students then proceed to cycle II. In cycle II learning mathematics through the application of the Make A Match model experienced an increase in the average value from 69 to 82. Thus the use of the Make A Match model can increase the average value of students. The results of the increase in cycle II can be seen from the diagram below:

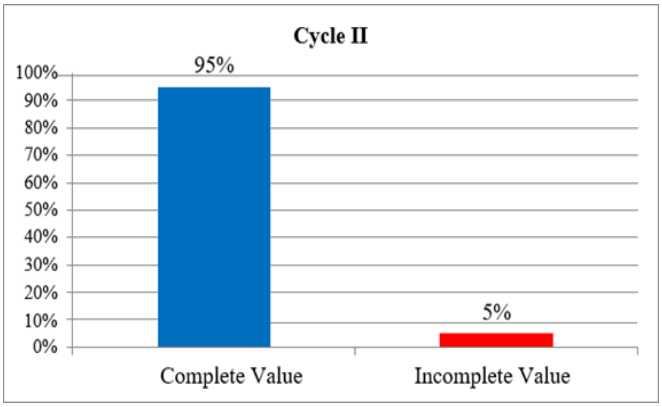

Fig. 2. Result of Student Learning Completeness Cycle II

If it is observed that the learning outcomes in cycle II are quite satisfactory because the average value obtained can reach 82 (eighty two), for class IV with 20 students. With the highest score of 100 and the lowest score of 50, and 1 student still cannot reach the KKM.

The number of students who passed in cycle II was 19 students or 95% of students obtained a complete score. The completeness of student learning in mathematics for grade IV students is because researchers optimize the use of the Make A Match learning model with individuals.

Based on observations made by researchers and collaborators from the initial conditions, the final state of cycle 1 to the final state of cycle II, according to the data obtained it turns out that there has been a continuous increase in the value of learning outcomes. Comparison of Pre Cycle, Cycle 1 and Cycle 2 can be seen in the following figure :

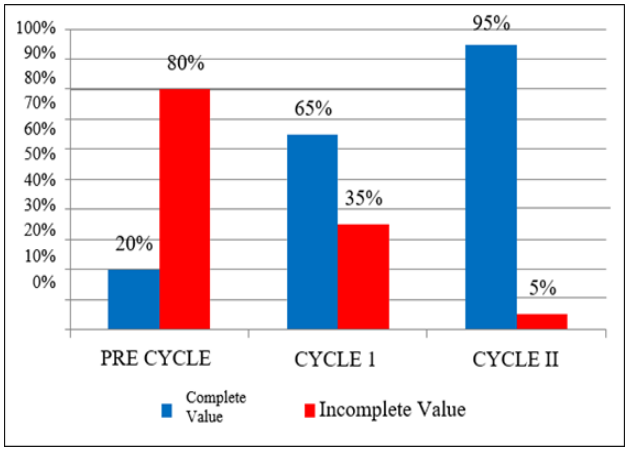

Fig. 3. Result of Pre Cycle Student Mastery Learning, Cycle I, Cycle II

Learning outcomes in research subjects from initial conditions with an average value of 56 to the end of cycle 1 reaching an average value of 69 means experiencing an increase of 13 points. From cycle 1 to cycle II, Average increase of learning outcomes from 69 to 82, meaning an increase of 13 points. Thus from the initial conditions to the final conditions of cycle II from 56 to 82 means an increase of 26 points.

4. Conclusion

Based on the implementation of the research and the discussion that the classroom action carried out by researchers in cycle 1 in the form of using the Make A Match Cooperative Learning model can improve the learning outcomes of research subjects. This can be proven by the results of the evaluation at the initial condition value which was only an average of 56 (fifty six) increased to an average value of 69 (sixty nine) at the end of cycle 1. The use of the Make A Match model as a group in learning in cycle II turned out to be very effective and was able to continuously motivate students to learn so that the evaluation results increased from originally in cycle 1 the average value was 69 (sixty nine) in cycle II increased to 2 (eighty two). Empirical data in this study shows that class action carried out by researchers starting from the initial conditions, cycle I and cycle II have succeeded in improving learning outcomes of flat-shape mathematics for fourth grade students of Pakunden State Elementary School in semester 2 of the 2020/2021 Academic Year. The comparison of the average value of the initial conditions with the initial cycle II was 56 in the second cycle also increased to 82.

5. Acknowledgements

The Muhammadiyah University of Purwokerto is to be commended for giving researchers the chance to carry out their work.

6. References

[1] Depdiknas, 2006. Standar Isi, Standar Kriteria Kelulusan, Implementasi Standar Isi dan Standar Kriteria Kelulusan. Jakarta: Peraturan Menteri No. 22, 23,24 Tahun 2006

[2] Restutami, D. 2019. Penerapan Model Pembelajaran Make a Match dalam Meningkatkan Hasil Belajar Matematika Siswa. Prosiding DPNPM Unindra.

[3] Aliputri, Dhestha. 2018. Penerapan Model Pembelajaran Kooperatif Tipe Make A Match Berbantuan Kartu Gambar untuk Meningkatkan Hasil Belajar Siswa. Jurnal Bidang Pendidikan Dasar (JBPD): Vol.2, No. 1A Hal 70-77.

[4] Kondolele, Eunike, Goni, M. 2022. Penerapan Model Pembelajaran Kooperatif Tipe Make A Match Untuk Meningkatkan Hasil Belajar Matematika Siswa Kelas IV. Edu Primary Journal: Jurnal Pendidikan Dasar, Vol.3, No. 1.

[5] Fathurrohman,M. 2015. Model-Model Pembelajaran Inovatif. Alternatif Desain Pembelajaran yang Menyenangkan. Jogjakarta: Ar-Ruzz Media.

[6] Nengsih, D. 2019. Penerapan Pembelajaran Kooperatif Dengan Teknik Make a Match untuk Meningkatkan Aktivitas dan Hasil Belajar Matematika. Jurnal Didaktika Pendidikan Dasar: Vol.3, No.2.

[7] Sukaisih, Elya. 2019. Meningkatkan Hasil Belajar Matematika Melalui Model Pembelajaran Kooperatif Tipe Make a Match Pada Materi Aritmatika Sosial. Edumat: Jurnal Pendidikan Matematika, Vol.7, No.1.

[8] Lie, Anita. 2018. Cooperatif Learning. Jakarta: Grasindo.

[9] Destari, D.S, Sukamto. 2019. Keefektifan Model Tipe Make A Match Terhadap Hasil Belajar Matematika. Journal for Lesson and Learning Studies: Vol.2, No.2.

[10] Arikunto, S. 2006. Penelitian Tindakan Kelas. Jakarta: Bumi Aksara.