Journal of Social Science
Homepage : https://ijss.antispublisher.com/index.php/IJSS
Email : admin@antispublisher.com

e-ISSN : 3047-4647
IJSS, Vol. 2, No. 1, March 2025
Page 1-9

Improving Students Learning Outcomes in The Material of Plane Area Through Small Group Learning Method At Class V Students of SDN 2 Jambesari

Konka Dewi Lestari[1],· Ulil Azmi[2]
[1]Terbuka University Student, Indonesia
[2]STAI Tgk Chik Pante Kulu Banda Aceh, Indonesia

DOI : : https://doi.org/10.61796/ijss.v2i1.31

Sections Info

Article history:
Submitted: December 20, 2024
Final Revised: December 21, 2024
Accepted: December 21, 2024
Published: December 21, 2024

Keywords:
Evaluation
Learning
Collaboration
Small group learning
Peer tutors

ABSTRACT

Objective: *This study aims to enhance the learning outcomes of fifth-grade students in mathematics, specifically on the topic of plane area, by implementing a small group learning method combined with peer tutoring to address gaps in student engagement and understanding.* ***Method:*** *The research employed Classroom Action Research (CAR) procedures, conducted in two cycles, each consisting of planning, implementation, observation, and reflection. The study involved 13 fifth-grade students from SDN 2 Jambesari, utilizing group discussions and peer tutoring to foster active participation and improve comprehension.* ***Results:*** *The findings revealed a significant improvement in students' mathematics performance. In the first cycle, student completion reached 61.5%, which increased to 92% in the second cycle. Observational data indicated heightened student engagement and active participation during small group learning compared to traditional whole-class instruction.* ***Novelty:*** *This study demonstrates the effectiveness of integrating small group learning and peer tutoring to overcome student passivity and enhance mathematical comprehension, providing a replicable model for addressing learning disparities in elementary education.*

INTRODUCTION

Mathematics is a field of science that trains reasoning to think logically and systematically in solving problems and making decisions. Mathematics is not only a scientific discipline, but also a universal language used to model phenomena in nature, develop technology, and solve various problems in everyday life. Mathematics is a science that studies calculations, assessments and the use of reason or a person's ability to think logically and logically, critically, analytically and systematically [21].

Mathematics learning at the elementary school level requires a strong understanding of concepts as the key to students' academic success. However, many students have difficulty understanding the teacher's explanation due to lack of student attention or difficulty in listening to the information conveyed by the teacher. Some factors that influence failure in learning mathematics include ineffective teaching methods, lack of student motivation, and student anxiety about mathematics [20].

Based on observations and reflections conducted by the researcher together with supervisor 2 who is also an educator at SDN 2 Jambesari, it was found that students' difficulties in the mathematics learning process often focus on gaps in student involvement which results in a decrease in students' average scores, especially for the material on the area of flat shapes. Some students tend to be busy playing by themselves or chatting with their friends when the teacher is explaining the material. Decreased

student engagement is related to a lack of motivation to learn, especially when students feel they do not understand the material being taught. This can lead to frustration and confusion which can ultimately reduce students' interest in learning mathematics as a whole. This situation is made worse when the student feels embarrassed or does not want to ask the teacher further questions. However, on the other hand, some active students were able to follow the learning well and understand the teacher's explanation so that the teacher assumed that the entire class had understood the material being taught. So when the written test was conducted, 8 out of 13 students did not achieve the expected score.

From the results of observation and reflection, the researcher applied a small group learning model for the material on the area of flat shapes by applying group discussion and peer tutoring methods in the hope of improving students' learning outcomes and motivation. Group discussion is a group activity to exchange ideas and discuss a particular topic [15] in this case aims to solve mathematical problems. Through small group learning, students can share their knowledge and use the peer tutoring method which is a learning model where students teach other students so that it is hoped that smart students can help students who are less smart with the aim of increasing the average student grades [2].

According to [9], several mathematics teaching and learning strategies include:

1. Direct mathematics teaching and learning strategy where mathematics learning is largely directed by the educator.
2. Indirect mathematics teaching and learning strategies, namely student-centered learning and the role of educators as facilitators.
3. Interactive mathematics teaching and learning strategies, namely mathematics learning that emphasizes discussion and sharing between students.
4. Empirical mathematics teaching and learning strategies, namely student-centered and activity-based learning.
5. Independent mathematics teaching and learning strategies, namely mathematics learning that aims to build individual initiative, independence, and self-improvement of students.

In the research of [6] stated the effectiveness of small group learning methods in classroom learning activities provides better results. In small groups, students can engage in more intensive interactions with peers, allowing them to support each other and strengthen their understanding of complex mathematical concepts. Similar findings were also revealed in previous research by [5] which stated that students who study in small groups tend to achieve higher learning achievement than those who receive individual explanations. [8] emphasized the importance of small group learning in developing students' social skills to strengthen their understanding of mathematics. A study conducted by [10] also showed that small group learning methods can increase students' confidence in solving mathematical problems.

Djahmara in [17] mentions several skills that teachers need in teaching small groups, namely approach skills, skills in managing the course of learning activities, and skills in guiding and helping students during learning activities.

RESEARCH METHOD

The research was conducted at SDN 2 Jambesari with research subjects consisting of 13 fifth grade students (5 females and 8 males). The research was conducted with the Classroom Action Research procedure in 2 cycles consisting of planning, implementation, observation, and reflection. Classroom Action Research is a research conducted by teachers in their own classes through self-reflection, with the aim of improving performance as teachers so that student learning outcomes increase [19].

Cycle I Process

Planning, preparing learning improvement plans based on the results of pre-cycle reflection and problem identification. Implementation, in implementing learning improvements in accordance with the learning improvement plan that has been prepared. In the implementation of cycle I, the researcher in this case acting as a teacher has not clearly conveyed the objectives of group learning activities to determine the level of student initiative and motivation to learn in groups. Observation, The observation process is carried out simultaneously while learning is taking place with the help of supervisor 2 or colleagues. Reflection, in Reflection is done at the end of the cycle by giving written tests to students. The results of the written test and observations were used as the basis for preparing the cycle II plan.

Cycle II Process

Planning, preparation of learning improvement plans based on the results of cycle I reflection by correcting deficiencies in cycle I and adding learning media. Implementation, in the implementation of learning improvements in accordance with the learning improvement plan that has been prepared and improvements are made from cycle I. In the implementation of cycle II, the researcher in this case acts as a teacher to clearly convey the objectives of group learning activities to apply group discussion methods by adopting peer tutoring methods. Observation, the observation process is carried out simultaneously while learning is taking place with the help of supervisor 2 or colleagues. Reflection of the reflection process is carried out at the end of the cycle by giving written tests to students. The results of the written tests and observations are used as the basis for data processing.

RESULTS AND DISCUSSION

Based on the pre-cycle reflection, it was found that the average score of fifth grade students was below the completion standard (65). Of the 13 students, only 5 students had scores above or equal to 65. In cycle I, small group learning was carried out with 3-5 students in one group showing an increase in scores from the pre-cycle. In cycle II, small group learning was carried out with 3-5 people with students being given instructions in advance to carry out group discussion methods and peer tutors. In the implementation, learning media were added in the form of colored pictures displayed on the board to provide examples of real objects to students. The results of the written test with different but similar questions showed an increase in the percentage of completion of up to 92%.

This study was conducted to determine the level of success of the application of small group learning methods in increasing the average value of class V in mathematics subjects. The application of small group learning is accompanied by the implementation of peer tutoring learning in groups. The researcher chose this learning method after reflecting on previous learning and considering the gaps in student abilities that often arise in every learning that takes place.

The implementation of small group learning in cycle I showed an increase in student learning outcomes whose initial completion rate was only 38.4% increased to 61.5% then in cycle II increased to 92% of a total of 13 students. In cycle I the researcher did not describe the objectives of group learning to measure the level of student initiative and motivation. From observations during the learning process, it was found that students had the initiative to discuss with their group members although not evenly distributed. There were still some students who were dependent on teacher assistance and did not play an active role in group discussions. In cycle II the researcher had conveyed the objectives of group learning to adopt the peer tutor method so that students were expected to be able to help each other in groups. During the cycle II learning process, students played an active role in their group discussions. Students had the initiative to ask their friends first about material that was not understood while other students were motivated to solve the questions given.

The role of the researcher as a teacher in small group learning is to facilitate students in learning by providing an introduction to the material to be discussed using relevant and easy-to-understand learning media. The teacher also acts as an observer in the course of the discussion process in the group and ensures that learning takes place according to plan. The teacher must also be able to be a source of information for students if all members of the group have difficulty in completing the tasks or questions given, thus the teacher must still master the material being discussed.

In the classroom action research conducted by Maryam et. al. (2022) by implementing the Team Assisted Individualization type cooperative learning model, it was proven to improve students' mathematics learning outcomes. The study was conducted in two cycles of PTK with 20 fifth grade students as subjects who showed improvement in each cycle. In cycle I, Maryam got a percentage of achievement of 64.16% while in cycle II which was conducted with a one-week gap, she achieved a percentage of achievement of 84.37%. With these results, it shows that the learning model applied has succeeded in improving student learning outcomes. The learning model used can guide students to help each other in one group. This can reduce competition between students because students will work together to solve a problem and find the right solution. Students will not only depend on the information provided by the teacher, but are also motivated to learn. Students who experience difficulties are expected to be able to absorb the material with the help of their friends and superior students can deepen their abilities by sharing what they know.

Meanwhile, [8] conducted a study using a questionnaire method for students from various schools to determine the effectiveness of the peer tutor learning method carried

out in each school, obtaining results that the peer tutor learning method can help improve grades and achievements as well as students' interest in learning. Most students find it easier to understand learning materials when taught by their own friends with a more relaxed and easy-to-understand language compared to one-way explanations from teachers. The results of filling out the questionnaire given showed that 75% of students had implemented the peer tutor learning method and 68.8 % of them stated that peer tutor learning was effective to use during learning. The information received by students will be easier to accept and absorb.

Meanwhile, students who become tutors can develop their knowledge and understand the material better because they always repeat the material when sharing it with other students. Learning by implementing peer tutoring is not only effective in helping students understand the material but can also help increase students' self-confidence and courage to appear in front of their friends. The role of the teacher in this learning is how to choose a good tutor. The selection of tutors can be based on report card grades, but not all students with good report card grades have the courage to teach their friends. Teachers should be able to foster students' self-confidence so that this method can be carried out. Teachers can give appreciation to students who become tutors to provide motivation and increase students' self-confidence. The peer tutoring method is included in cooperative learning which prioritizes mutual respect between students who work together. This method encourages students to actively participate in learning and solve problems together so that the distribution of understanding of the material will be better conveyed.

Seeing the success of the two previous studies, the researcher applied the peer tutoring method in small groups to be carried out on grade V students who had difficulty in understanding the material on the area of flat shapes. In mathematics learning, one of the factors that influences the learning process is students related to students' abilities and readiness, as well as students' attitudes and interests in participating in mathematics learning [9]. The abilities of students in one class are not all the same, some are superior and quickly absorb learning materials but there must be some who are slow in understanding the material.

If this situation is not handled properly, it can cause a gap in student abilities and can cause a lack of self-confidence in students whose abilities are below their friends. Peer tutors can help equalize student abilities by working together in groups and will increase the class average. Students with superior abilities will help students who have difficulty in learning and get a return in the form of in-depth material because when students teach their friends, without realizing it, the students will also continue to learn so that this method can provide good benefits for all students.

Improving student learning outcomes in the material on the area of flat shapes in class V of SDN 2 Jambesari can be achieved through the application of small group learning methods. This method has been proven effective in various studies showing that collaborative learning can improve students' understanding of subject matter. For example, Harefa et al. noted that the application of cooperative learning models, such as

Cooperative Script, can improve students' mathematics learning outcomes, with the average learning outcome increasing from 68.6 in cycle I to 83 in cycle II, indicating a significant increase in students' learning completeness [3].

Group discussion methods have also been proven effective in improving learning outcomes. In a study conducted by Rinaldi, it was found that the use of group discussion methods in mathematics learning can increase students' average scores from 69.45 to 74.10, with the percentage of learning completion increasing significantly [12]. Another study by Miasari showed that the application of small group discussion methods in mathematics learning in grade VI also succeeded in improving student learning achievement, with learning completion reaching 92.50 % in cycle II [7]. This shows that interaction between students in small groups can encourage better understanding of the concepts being taught.

The importance of teacher pedagogical skills in implementing small group learning methods also cannot be ignored. Putri et al. emphasized that teacher pedagogical competence, including skills in managing group discussions, greatly influences the success of the learning process [11]. Teachers who are able to facilitate discussions well will create a conducive learning environment, where students feel comfortable sharing ideas and asking questions. This is in line with the findings by Suganda et al., which show that the right learning method can significantly improve student learning outcomes [16].

In addition, the application of various learning methods, such as Jigsaw, can also have a positive impact on student learning outcomes. Sriaryaningsyih reported that the application of the Jigsaw method in mathematics learning can significantly improve student learning outcomes, with the average student score increasing from 66.14 to 81.41 [14]. This method encourages students to work together and teach each other, which in turn strengthens their understanding of the material.

On the other hand, Dinda highlighted that the script-based cooperative learning model can increase student learning activity, which is an important factor in achieving good learning outcomes [1]. By actively involving students in the learning process, they not only learn from the teacher, but also from their friends. This creates a more interactive and enjoyable learning atmosphere, which can increase students' motivation to learn.

In the context of learning the area of flat shapes, the application of small group discussion methods can help students to better understand geometric concepts. Through discussion, students can ask each other and explain to each other, which can deepen their understanding. Wahyuni showed that the application of the discussion method to the material on mixed arithmetic operations also succeeded in improving student learning achievement, which shows that this method can be applied to various learning materials [18].

In addition, it is important to consider the use of interesting and relevant learning media to support learning. Sholeha researched the development of animated video-based learning media that can increase students' interest in learning [13]. Interesting media can

help students to be more focused and engaged in learning, thereby improving their learning outcomes.

Evaluation and reflection on the learning process are also important aspects in improving student learning outcomes. Research by Irawati shows that analyzing teachers' basic teaching skills can provide insight into areas that need improvement in teaching [4]. By conducting regular evaluations, teachers can identify the most effective methods and make necessary adjustments to improve student learning outcomes.

Thus, the application of small group learning methods, supported by good teacher pedagogical skills, the use of interesting media, and continuous evaluation, can significantly improve student learning outcomes in the material of the area of flat shapes in class V of SDN 2 Jambesari. Existing studies show that a collaborative approach to learning not only improves student understanding, but also creates a more dynamic and interactive learning environment.

CONCLUSION

Fundamental Finding : The implementation of small group learning, incorporating peer tutoring, significantly improved the learning outcomes and engagement of fifth-grade students in mathematics, particularly on the topic of plane area. This method effectively encouraged shy students to participate, enhanced peer-to-peer learning, and motivated students to actively contribute to group discussions, thereby fostering a collaborative and inclusive learning environment. **Implication :** The findings underscore the potential of small group learning methods to address disparities in student understanding and engagement. Teachers can utilize this approach to create a dynamic classroom environment where students collaboratively build knowledge, reducing reliance on teacher-centered instruction and promoting self-directed learning. **Limitation :** This study was limited to a single school and a small sample size of 13 students, potentially affecting the generalizability of the results. Variations in teacher facilitation skills and student dynamics in other contexts may influence outcomes. **Future Research :** Further studies should explore the application of small group learning across diverse educational settings and subjects to validate its effectiveness. Additionally, research could investigate the long-term impact of this method on students' learning retention and overall academic performance.

REFERENCES

[1] P. Dinda, "Model Pembelajaran Kooperatif Berbasis Script Untuk Meningkatkan Keaktifan Belajar Siswa Sekolah Dasar," *BIP*, vol. 2, no. 2, pp. 190-199, 2023. DOI: 10.56916/bip.v2i2.516.

[2] A. Fu'adah, *Pembelajaran Metode Tutor Sebaya Untuk Meningkatkan Prestasi Dan Motivasi Belajar Anak*. Penerbit P4I, 2022.

[3] D. Harefa et al., "Penerapan Model Pembelajaran Cooperative Script Untuk Meningkatkan Hasil Belajar Matematika," *JKPM (Jurnal Kajian Pendidikan Matematika)*, vol. 6, no. 1, pp. 13-22, 2020. DOI: 10.30998/jkpm.v6i1.6602.

[4] H. Irawati, "Analisis Keterampilan Dasar Mengajar Mahasiswa Calon Guru Biologi Di Pendidikan Biologi FKIP UAD," *Inkuiri: Jurnal Pendidikan IPA*, vol. 9, no. 1, pp. 34-40, 2020. DOI: 10.20961/inkuiri.v9i1.41378.

[5] M. Maryam, Z. Zaid, and B. Sari, "Penerapan Model Pembelajaran Kooperatif Tipe Team Assisted Individualization untuk Meningkatkan Hasil Belajar Matematika Siswa Kelas V UPTD SD Negeri 26 Parepare," *J-HEST*, vol. 5, no. 1, pp. 17-26, 2022. DOI: 10.36339/j-hest.v5i1.13.

[6] R. Mesra, R. T. Paulus, M. Yenni, W. Atri, and K. Leonita, "Teaching Skills For Small Groups and Individuals at Inpres Roong Elementary School," *Journal on Education*, vol. 5, no. 4, pp. 17552-17559, 2023.

[7] N. Miasari, "Peningkatan Prestasi Belajar Matematika Dengan Penggunaan Metode Diskusi Kelompok Kecil Pada Siswa Kelas VI Semester II SD Negeri 2 Peguyangan Tahun Pelajaran 2016/2017," *Adi Widya: Jurnal Pendidikan Dasar*, vol. 3, no. 2, pp. 59-66, 2019. DOI: 10.25078/aw.v3i2.885.

[8] L. Nurhasanah and S. Gumiandari, "Implementasi Metode Pembelajaran Tutor Sebaya Terhadap Hasil Belajar Siswa," *Pedagogik Jurnal Pendidikan*, vol. 16, no. 1, pp. 62-68, 2021.

[9] Ovan, *Strategi Belajar Mengajar Matematika*. Kencana, 2022.

[10] K. B. A. Permana, N. T. Renda, and I. G. Margunayasa, "Model Pembelajaran Kolaboratif Meningkatkan Hasil Belajar Matematika Siswa," *Universitas Pendidikan Ganesha*, vol. 3, no. 2, pp. 223-232, 2020.

[11] B. Putri, M. Mudzanatun, and A. Putri, "Analisis Kompetensi Pedagogik Guru Dalam Pelaksanaan Keterampilan Dasar Mengajar Pada Pembelajaran Tematik," *Indonesian Journal of Educational Research and Review*, vol. 3, no. 1, pp. 136-143, 2020. DOI: 10.23887/ijerr.v3i1.25183.

[12] R. Rinaldi, "Peningkatan Aktivitas Dan Hasil Belajar Matematika Standar Kompetensi Menerapkan Konsep Barisan Dan Deret Dalam Pemecahan Masalah Melalui Metode Pembelajaran Diskusi Kelompok Di Kelas XI AP 3 Semester Ganjil SMKN 1 Payakumbuh Tahun Ajaran 2015/2016," *Jurnal Konseling Dan Pendidikan*, vol. 4, no. 1, pp. 107-117, 2016. DOI: 10.29210/14900.

[13] S. Sholeha, "Pengembangan Media Pembelajaran Berbasis Video Animasi Pada Materi Tata Surya Untuk Siswa SMP," *Jurnal Inovasi Pendidikan Sains (JIPS)*, vol. 4, no. 2, pp. 81-89, 2023. DOI: 10.37729/jips.v4i2.3529.

[14] S. Sriaryaningsyih, "Penerapan Metode Pembelajaran Jigsaw Dalam Meningkatkan Hasil Belajar Matematika Siswa Pada Materi Persamaan Kuadrat Kelas XI Multimedia SMK Negeri 3 Kota Bima," *Jagomipa: Jurnal Pendidikan Matematika Dan IPA*, vol. 4, no. 1, pp. 79-87, 2024. DOI: 10.53299/jagomipa.v4i1.437.

[15] Sudiyono, *Metode Diskusi Kelompok dan Penerapannya dalam Pembelajaran Bahasa Indonesia di SMP*. Penerbit Adab, 2020.

[16] S. Suganda, M. Rifki, A. Alnedral, and N. Ikhsan, "Pengaruh Metode Pembelajaran Dan Kemampuan Motorik Terhadap Hasil Belajar Pendidikan Jasmani Olahraga Dan Kesehatan Siswa," *Jurnal Stamina*, vol. 5, no. 7, pp. 295-309, 2022. DOI: 10.24036/jst.v5i7.1136.

[17] C. Sunaengsih and D. T. Suryana, *Pembelajaran Mikro*. UPI Sumedang Press, 2018.

[18] I. Wahyuni, "Penerapan Metode Diskusi Pada Materi Operasi Hitung Campuran Untuk Meningkatkan Hasil Belajar Peserta Didik Kelas VI," *JPPSD: Jurnal Pendidikan Dan Pembelajaran Sekolah Dasar*, vol. 3, no. 3, pp. 338-346, 2024. DOI: 10.26858/jppsd.v3i3.56865.
[19] I. G. A. K. Wardani and W. Kuswaya, *Penelitian Tindakan Kelas*. Universitas Terbuka, 2021.
[20] R. Wiryana and J. A. Alim, "Permasalahan Pembelajaran Matematika Di Sekolah Dasar," *Jurnal Kiprah Pendidikan*, vol. 2, no. 3, pp. 271-277, 2023. DOI: 10.33578/kpd.v2i3.187.
[21] E. Yayuk, *Pembelajaran Matematika SD*. UMM Press, 2019.

*** Konka Dewi Lestari (Corresponding Author)**
Terbuka University Student, Indonesia
Email: konka.lestari@gmail.com

Ulil Azmi
STAI Tgk Chik Pante Kulu Banda Aceh, Indonesia
Email: ulilazmi83@gmail.com