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Efforts to Improve Mathematics Learning Outcomes on Multiplication Concepts through the Use of Kadolan Media (Multiplication Domino Cards) in Class II Students of UPT SDN 263 Pinrang

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Abstrak

Penelitian ini bertujuan mendeskripsikan proses pembelajaran menggunakan media Kadolan (Kartu Domino Perkalian) untuk meningkatkan hasil belajar matematika konsep perkalian siswa kelas II UPT SDN 263 Kabupaten Pinrang. Jenis penelitian ini adalah Penelitian Tindakan Kelas (PTK). Subjek pada penelitian ini adalah siswa kelas II UPT SDN 263 Kabupaten Pinrang tahun ajaran 2023/2024 yang berjumlah 27 siswa. Desain penelitian ini mengacu pada desain penelitian tindakan kelas menurut Kemmis dan Mc. Taggart yang meliputi (1) tahapan perencanaan, (2) pelaksanaan, (3) pengamatan dan (4) refleksi. Metode pengumpulan data yang digunakan dalam penelitian ini adalah (1) tes, (2) observasi dan (3) dokumentasi. Instrumen penelitian yang digunakan adalah lembar observasi dan tes. Berdasarkan Hasil belajar siswa pra siklus sebesar 53,93, selanjutnya dengan menggunakan media Kadolan (Kartu Domino Perkalian) dalam melakukan konsep perkalian meningkat menjadi 57,86 pada siklus I, kemudian guru melakukan perbaikan dengan membagi kelompok sesuai hasil belajar siklus I, membagi tugas pada setiap anggota kelompok, memberikan waktu kepada siswa untuk mengerjakan perkalian pada siklus II terjadi peningkatan sebesar 72,50. Sehingga dapat disimpulkan bahwa penggunaan media Kadolan (Kartu Domino Perkalian) dapat meningkatkan hasil belajar matematika konsep perkalian siswa kelas II UPT SDN 263 Kabupaten Pinrang.

Kata Kunci: Media Kadolan, Hasil Belajar

Abstrack

This research aims to describe the learning process using Kadolan media (Multiplication Domino Cards) which can improve students' mathematics learning outcomes on the concept of multiplication in class II Mathematics learning at UPT SDN 263 Kab. Pinrang. This type of research is Classroom Action Research (PTK). The subjects in this research were class II students at UPT SDN 263 Kab. Pinrang for the 2023/2024 academic year, totaling 27 students. This research design refers to the classroom action research design according to Kemmis and Mc. Taggart which includes (1) planning stages, (2) implementation, (3) observation and (4) reflection. The data collection methods used in this research are (1) tests, (2) observation and (3) documentation. The research instruments used were observation sheets and tests. Based on the research results, it shows that the use of Kadolan media (Multiplication Domino Cards) can improve students' mathematics learning outcomes for the concept of multiplication in class II Mathematics learning at UPT SDN 263 Kab. Pinrang. The average overall student learning outcomes in cycle I was 37%, after improvements were made by dividing groups according to cycle I learning outcomes, dividing tasks among each group member, giving students time to carry out multiplication operations using multiplication domino cards can improve learning outcomes students' mathematics concept of multiplication becomes 85% in cycle II. Pre-cycle student learning outcomes were 53.93, then by using Kadolan media (Multiplication Domino Cards) in carrying out the concept of multiplication it increased to 57.86 in cycle I, then the

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*teacher made improvements by dividing groups according to the learning outcomes of cycle I, dividing tasks in each group members, give students time to do multiplication in cycle II of 72.50***.**
Keywords: *Multiplication Domino Card, Learning Outcomes*

Intruduction

Mathematics learning is a deductive science symbol language that does not accept inductive proof which has an abstract object of purpose that in order for students to understand it needs to be reinforced so that it settles and lasts long in students' memory so that it will be embedded in their mindset and pattern of action. Elementary school students generally range from 6 or 7 years, to 12 or 13 years whose mindset is in the concrete operational phase. At primary school age, children can already react to intellectual stimuli, or carry out learning tasks that demand intellectual abilities or cognitive abilities (such as reading, writing, and counting, or calistung).

At the age of SD/MI, their thinking power has developed towards concrete and rational thinking. Based on research conducted in Almeria, Spain on elementary school students, interesting data was obtained. The results show that the two fields of study that are very influential on academic achievement in general are mathematics and language. The better a person masters math and language, the better their self-concept and academic achievement. Mathematics is a science that is taught at every level of education.

The characteristics of abstract mathematics, to understand it requires high concentration and seriousness and even requires a long time full of symbols that are sometimes difficult to understand. Student understanding of learning materials is the main goal of the learning process. Therefore, it is necessary to utilize interactive multimedia as a learning media innovation. The role of media is very important in the learning process so that the material delivered by the teacher is quickly delivered and easily accepted by students.

Teaching media is defined as one that can be used to channel messages, stimulate thoughts, feelings, attention, and willingness of students so as to encourage the learning process. Forms of media are used to enhance the learning experience to make it more concrete. Thus, we can expect the results of the learning experience to be more meaningful to students. Learning media is one of the important components of education to support the effectiveness and efficiency of teaching and learning activities used to provide understanding to students in the teaching and learning process, especially in the process of learning mathematics.

Each learning material has a varying level of difficulty, there are learning materials that do not require learning media, some require learning media (including mathematics) in conditions like this it is very good if the teacher uses media to facilitate learning math. If we look at the various around us, there are many kinds of media used by teachers to teach, especially mathematics, 3 of which are Domino Math (Domat) is a game that is the same as playing ordinary dominoes, this domino game can be played by 2-4 people with the aim of training students' concentration and focus in learning.

Learning math by using math dominoes media makes learning fun, while conditioning students to learn and work together in a group to bring out the spirit of healthy competition, responsibility, cooperation, creativity, creative thinking and quick thinking. In addition, by using math dominoes there is a special excitement in learning so that students will be interested and easy to accept, understand and understand the lessons learned. Math domino cards are not a card used by people gambling but a medium for learning whose shape is made like domino cards to attract students' interest in learning math.

With the use of this learning media, it can improve students' ability to receive all the information conveyed by the teacher, besides that learning is not only teacher-centered. Based on the phenomenon of education conducted by researchers at UPT SD Negeri 263 Kab. Pinrang. When teaching the teacher uses the lecture method which is not varied with other methods and does not bring media as a student attraction in participating in the teaching and learning process.

To be able to arouse student interest, you should use media as a support in the teaching and learning process. With the media, not only does it

increase student interest but it will facilitate the teacher's process of delivering material without being lengthy. In addition, the class atmosphere became noisy due to the learning process not being conducive because there were several students who did not follow the learning process properly. Meanwhile, based on initial observations made by researchers, many students are still not ready to carry out the learning process. Many students were afraid when told to come forward by the homeroom teacher to do math practice problems because many of them did not understand, found it difficult to catch and understand and felt bored with math lessons.

There are also some students who say that math is a terrible lesson this is evidenced by several students who were told to come forward but they did not want to. Students also argue that there is a lack of encouragement or motivation from their parents, because most of them after returning from school they are not really noticed or asked about the lessons that have been learned at that time, thus making students easily forget the lessons taught at that time because they are not repeated at home. From the above problems cause low math learning outcomes. Judging from their test scores below the KKM, while the KKM in UPT SD Negeri 263 Kab. Pinrang is 65. Based on several factors that have been mentioned by researchers, the dominant factor in the problem lies in the lack of use of media in learning.

Based on the description and explanation of the background above, it is necessary for a teacher to find and apply a learning media that can improve student learning outcomes in Mathematics subjects, in that framework the researcher conducted a study with the title Efforts to Improve Mathematics Learning Outcomes on Multiplication Concepts through the Use of Kadolan Media (Multiplication Domino Cards) in Class II Students of UPT SDN 263 Pinrang. B. Problem Formulation Based on the background that has been described, the problem formulation in this study is as follows

The problem formulations in this study are as follows: 1. Can the use of Kadolan (Multiplication Domino Card) improve the learning outcomes of Mathematics the concept of multiplication in class II students of UPT SDN 263 Pinrang? 2. How does the use of Kadolan (Multiplication Domino Card) in improving the learning outcomes of Mathematics of multiplication concepts in grade II students of UPT SDN 263 Pinrang?

Research Objectives The objectives of this study are as follows: 1. To find out whether the use of Kadolan (Multiplication Domino Cards) can improve the learning outcomes of Mathematics of multiplication concepts in class II UPT SDN 263 Pinrang 2.

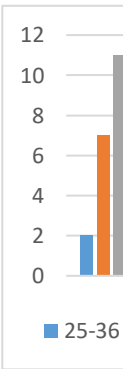
Method

This research uses the Classroom Action Research (PTK) method which aims to increase the effectiveness of education through problem solving strategies to improve learning. The research subjects were 27 grade II students of UPT SDN 263 Pinrang Regency, South Sulawesi, with a focus on mathematics subjects on the concept of multiplication. The research took place during the even semester of the 2023/2024 school year with a total of eight meetings.

Data were collected through observation, tests, and documentation. Observations were conducted directly by teachers and researchers to observe learning activities. Tests were used to measure students' multiplication counting skills before and after the action. Documentation included data collection from books, curriculum, and test results. Data analysis was done interactively with data reduction, data presentation, and conclusion drawing techniques. The research was divided into two cycles:

1. Cycle I Stages included planning, action implementation, observation, and reflection. The focus was on understanding multiplication as repeated addition using number card media. Although there was an increase in student activity, reflection showed the need for further improvement.

2. Cycle II Based on the reflection of cycle I, the action was improved by clarifying the rules for using the media and providing more opportunities for students to participate. The results showed significant improvement in



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multiplication counting skills, with 85% of students achieving mastery.

Result and Discussion

Based on the results of observations of the process and results of learning Mathematics class II before the action, information can be obtained as initial data. Of the 27 students in class II, there were only 7 students who reached the Minimum Completion Criteria (KKM) 65 in the aspect of Mathematics learning outcomes, the value obtained is a reflection of the students' multiplication counting ability. Based on the list of math test scores in the initial condition, there are still many students who get scores below the Minimum Completeness Criteria (KKM), it shows that students' ability to count multiplication is still low, for more details, the initial condition of the multiplication counting ability of class II students can be seen from table 1.

Table 1 Grade II Students' Mathematics Test Results (Initial Condition)

No.	Interval	f	Presentase
1	25-36	2	7%
2	37-48	7	26%
3	49-60	11	41%
4	61-72	3	11%
5	73-84	2	7%
6	85-96	2	7%
Mean		53,93	100%

The data from table 1 can be presented in the form of a graph as in Figure 1, namely the graph of the results of the mathematics test scores of class II students (initial conditions).

Figure 4.1 Student Mathematics Test Results (Initial Condition)

Based on table 1 that students who scored below 65 (KKM) were 20 people or 74% and students who scored the same or above KKM were 7 people or 26%. This can be interpreted that the classical completeness of 26% is still below the predetermined learning completeness of 70% of students getting ≥ 65 (KKM) in other words, the numeracy skills of grade II students of SDN 263 Kab. Pinrang are still low.

The low learning outcomes or incompleteness are caused by several factors, including: (1) Students feel afraid of math lessons, because math is considered difficult. In addition, students feel bored with math learning, because math learning is presented with conventional methods (drill method); (2) Teachers have not used media in learning mathematics, especially the subject of multiplication, so that students do not understand the concept of multiplication and cause their ability to 0 2 4 6 8 10 12 Grade II Students' Mathematics Test Results (Initial Conditions) 25-36 37-48 49-60 61-72 73-84 85-96 42 counting multiplication is low. Based on the results of discussions conducted between researchers and teachers, the underlying factor that causes students' low multiplication counting ability is that teachers have not used learning media optimally.

Therefore, an appropriate media is needed in order to overcome these problems, namely by using number card media. Through the use of number card media, it is expected that the multiplication counting ability of grade II students of SDN 263 Kab. Pinrang will increase so that student learning completeness can be achieved. This research process was carried out in 2 cycles. Where each cycle consists of 2 meetings and 4 stages, namely: (1) planning, (2) implementation, (3) observation, and (4) reflection.

1. Cycle I Cycle I action was carried out in accordance with the predetermined schedule, namely for 1 week from January 8 to 13, 2024. The stages carried out are as follows:

a. Planning Cycle I planning activities were carried out on Monday, January 8, 2024. Researchers and classroom teachers discuss the design of actions to be implemented. The action plan implemented is based on the solution to the

problems that arise, namely the use of multiplication domino card media to improve the ability to count multiplication. Furthermore, it was agreed that the implementation of the action in cycle I was carried out for 2 meetings, namely on Monday, January 8 and Thursday, January 11, 2024. The description of cycle I planning is as follows:

1) Developing Learning Implementation Plans Researchers and classroom teachers compile Mathematics Teaching Modules for 2 meetings with a time allocation of 2 x 35 minutes each meeting. The lesson plans include: competency standards, basic competencies, indicators, learning objectives, accompanying impacts, learning materials, learning methods and models, learning steps, learning resources and media, and assessments. 2) Preparing Supporting Facilities and Means The facilities and means prepared for the implementation of learning are: a) The classroom is designed in accordance with the cooperative learning model, namely the classroom table is arranged according to the number of groups. b) Prepare the media to be used, namely number cards and flower-shaped sterofoam as a place to attach number cards. c) Prepare digital cameras and mobile phones for documenting the learning process. 3) Prepare Observation Sheet and Assessment Sheet The observation sheet is used to record all student activities during the implementation of Mathematics learning. Observations made include teacher and student activities. Guidelines and observation sheets can be seen in appendices 7 and 8. Meanwhile, the assessment sheet is prepared based on a grid of questions that have been adjusted to the indicators and learning objectives to be achieved. b. Implementation In the implementation of this action, researchers who collaborate with teachers apply a cooperative learning model with the use of multiplication domino card media. The researcher here acts as a teacher and a peer teacher as an observer or observer. 1) Meeting 1 The first meeting of Grade II Mathematics lessons learned about multiplication as repeated addition. The learning steps include initial activities, core activities, and final activities. In the initial activity, the teacher first conditions the class by arranging the students' seats in groups. Next, the teacher assigns the class leader to lead the prayer. Furthermore, after praying, the teacher continues by giving apperception to students, by inviting students to sing the song “Naik Delman” then asking, “what animals are in the song Naik Delman? How many legs does the animal have? How many legs are there from 3 horses?”. Furthermore, the teacher provides an explanation of the learning objectives that will be implemented. Students listen to the explanation from the teacher about the learning objectives to be implemented. The core activity begins with the teacher asking questions to students about multiplication. Then students answer questions from the teacher about multiplication. Next, the teacher introduces the multiplication dominoes media as a tool in calculating multiplication and explains how to use the cards. Next, the teacher distributes multiplication dominoes to each group. After all groups get one set of multiplication dominoes, the teacher explains about multiplication as repeated addition using multiplication dominoes. For example 4 x 5 = then it can be explained that 4 x 5 = 5 + 5 + 5 + 5 is a repeated addition of the number 5 a number of 4 with a result of 20 listed on the card. Students pay attention to the teacher in explaining multiplication as repeated addition using multiplication dominoes media. Next, the teacher gives the Student Worksheet (LKS) to each group. Then, in groups, students discuss multiplication problems as repeated addition using multiplication dominoes media. In the final activity, the teacher and students summarize the learning through question and answer activities. Then students work on final evaluation questions from the teacher about the learning that has been carried out. The lesson is closed, students listen to the explanation from the teacher about the learning that will be carried out next, namely about the properties of multiplication.

2) Second Meeting The second meeting of Mathematics class II is in accordance with the teacher's explanation in the previous meeting, which is learning about the properties of multiplication. 46 The learning steps include initial activities, core activities, and final

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activities. In the initial activity, the teacher conditioned the class by arranging the students' seats in groups. Next, the teacher assigned the class leader to lead the prayer. After the prayer was over, the teacher gave apperception to the students in the form of questions about multiplication. After that, the teacher gives an explanation of the learning objectives that will be achieved. Students listen to the explanation from the teacher about the learning objectives to be achieved. This activity begins with the teacher explaining the properties of multiplication using multiplication dominoes. For example, the teacher calculates the multiplication of 3 x 0, then the way to do it is like on multiplication dominoes. Then the multiplication of 5 x 1 can be calculated using the multiplication domino media. Then, after getting an explanation from the teacher about the properties of multiplication, in groups students discuss the problems of the properties of multiplication using the multiplication dominoes media. After the students finish discussing, the teacher assigns each group to send one of its members to the front of the class to present the results of each group's discussion. Group representatives conveyed the results of their respective discussions then continued to provide feedback by the teacher on the results of student work.

In the final activity, the teacher and students summarize the learning through question and answer activities. Then students work on final evaluation questions from the teacher about the learning that has been carried out. The lesson was closed, students listened to the explanation from the teacher about the learning that would be carried out next, namely about the multiplication of two one-digit numbers and the multiplication of three numbers whose results were two numbers. c. Observation In this stage, the class teacher as a researcher monitors the implementation of learning by using multiplication domino card media carried out using tools in the form of observation sheets and recording with and smartphone camera. This observation is carried out to obtain data regarding the suitability of the implementation of learning with multiplication domino card media with lesson plans that have been prepared and to find out how much learning with multiplication domino card media implemented results in changes in the ability to count multiplication of grade II students. The activities carried out by the teacher are implementing learning with multiplication material as repeated addition at the 1st meeting and the properties of multiplication at the 2nd meeting. In the implementation of the research, researchers also supervised and guided students in the implementation of learning with multiplication dominoes media about multiplication material. After implementing the first cycle of action, by applying number card media in learning Mathematics, data on the learning outcomes of students in class II UPT SDN 263 Kab. Pinrang as shown in table 2.

Table 2. Cycle I Student Score Data 1st Meeting

No.	Interval	f	Presentase
1	35-45	2	7%
2	46-56	6	22%
3	57-67	8	30%
4	68-78	6	22%
5	79-89	2	7%
6	90-100	3	11%
mean		63,93	

The data in table 2 can be presented in the form of a graph as in Figure 2, namely the frequency graph of the value of the ability to count the concept of multiplication of students in class II UPT SDN 263 Kab. Pinrang in cycle I, meeting 1.

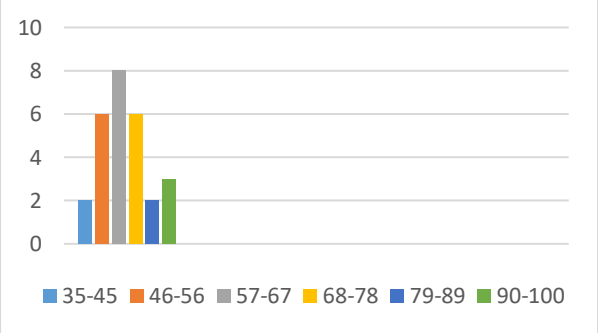

Figure 2 Student Score Data Cycle I Meeting 1

Based on the table and figure 4.2, it can be seen that students who reached completeness were 19 out of 27 students or 70% with a class average of 63.93. Furthermore, data on the results of the second meeting of cycle I can be seen in table 3 below:

Table 3. Data on Student Values Cycle I 2nd Meeting

No.	Interval	f	Presentase
1	23-35	1	4%
2	36-48	3	11%
3	49-61	13	48%
4	62-74	4	15%
5	75-87	4	15%
6	88-100	2	7%
	mean	60,18	

The data from table 3 can be presented in the form of a graph as in Figure 3, which is a graph about the frequency data of the value of the ability to count the concept of multiplication of students in class II UPT SDN 263 Kab. Pinrang in cycle I of the 2nd meeting.

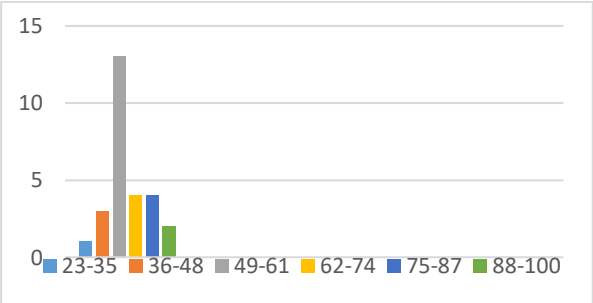

Figure 3. Data on Student Values Cycle I 2nd Meeting

Based on the table and Figure 3, it is known that in the second cycle I meeting of multiplication material the number of students who are complete is 10 out of 27 students or as much as 37% with the class average reaching 60.18.

Reflection The data obtained from learning Mathematics multiplication material using domino multiplication cards through observation is then collected and analyzed. Based on the results of observations made during the action implementation process, learning mathematics has shown an increase in student activity and activeness, namely on multiplication as repeated addition and the properties of multiplication. Changes for the better because the teacher in carrying out learning on multiplication as repeated addition and the properties of multiplication has used multiplication dominoes media well and used the right learning method, it makes students more enthusiastic and better understand the material, because students learn in a fun and interesting way. In addition, students also participate actively in learning by calculating directly what is learned by using multiplication domino card media. This shows the suitability of using multiplication dominoes media in learning math about counting multiplication as repeated addition and the properties of multiplication.

The action of cycle II was carried out in accordance with the predetermined schedule, namely for 1 week from January 15-20, 2024. The stages carried out are as follows:

a. Planning Cycle II planning activities were carried out on Monday, January 15, 2024. Researchers and classroom teachers discuss the design of actions to be implemented. Based on the results of reflection and evaluation of the implementation of actions in cycle I, it is known that learning using multiplication dominoes media carried out at the 1st meeting on multiplication material as repeated addition has shown a good improvement, it needs to be improved so that students really master the understanding of the concept of multiplication so that their numeracy skills can improve. Furthermore, at the 2nd meeting of cycle I on the material of multiplication properties of multiplication has not shown a good improvement because the class average decreased and only 10 students were able to reach the KKM 65.

Therefore, the researcher re-developed a lesson plan using multiplication domino card media to repeat math learning, namely with the indicator of multiplication as repeated addition at the first meeting and repeated the learning of multiplication material for the properties of multiplication at the second meeting. The action plan implemented is based on the solution to the problems that arise, namely the use of multiplication domino card media to improve the ability to count multiplication. Things that need to

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be improved by teachers in learning mathematics using multiplication domino card media as an effort to overcome the various deficiencies that exist, namely (1) The teacher explains to students the rules for using multiplication domino card media in calculating multiplication; (2) The teacher provides opportunities for students individually to calculate multiplication using multiplication domino card media. Furthermore, it was agreed that the implementation of actions in cycle II would be carried out for 2 meetings, namely on Monday, January 15, 2024 and Thursday, January 18, 2024. The description of cycle II planning is as follows:

1) Developing a Learning Implementation Plan Researchers and classroom teachers compiled a Mathematics Teaching Module for 2 meetings with a time allocation of 2 x 35 minutes each meeting. The lesson plans include: competency standards, basic competencies, indicators, learning objectives, accompanying effects, learning materials, learning methods and models, learning steps, learning resources and media, and assessment. 2) Preparing Supporting Facilities and Means The facilities and means prepared for the implementation of cycle II learning are still the same as the facilities and means prepared in cycle I. 3) Preparing Observation Sheets and Assessment Sheets Observation sheets are used to record all student activities during the implementation of Mathematics learning. Observations made include teacher and student activities. The assessment sheet is prepared based on a grid of questions that have been adjusted to the indicators and learning objectives to be achieved.

In the implementation of this action, researchers who collaborated with teachers applied a cooperative learning model with the use of multiplication dominoes media. Researchers here still act as teachers and peer teachers as observers or observers. 1) Meeting 1 The first meeting of Grade II Mathematics lessons learned about multiplication as repeated addition. The learning steps include initial activities, core activities, and final activities. The initial activity begins with the teacher conditioning the class and organizing student seating. Next, the teacher assigned the class leader to lead the prayer. After finishing the prayer, the teacher invites students to sing the song "Turtle". The teacher and students sing together. Next, the teacher explains the learning objectives that will be implemented. Students listen to the explanation from the teacher about the learning objectives to be implemented. In the core activity, the teacher asks questions about turtles related to multiplication. Students answer questions from the teacher about multiplication. Then the teacher explains about multiplication as repeated addition using multiplication dominoes media. For example, 3 x 6 can be done using multiplication dominoes. The teacher also explains how to use multiplication dominoes correctly. The teacher distributes multiplication dominoes with 2 people getting one set of multiplication dominoes. Next, the teacher gives problems about multiplication as repeated addition to students. Students calculate multiplication as repeated addition using multiplication dominoes media. In the final activity, the teacher and students together make learning conclusions. Students do the final evaluation questions from the teacher about the learning that has been done. The teacher closes the lesson by giving an explanation of the learning that will be carried out next, namely about the multiplication properties of multiplication material.

2) The 2nd meeting of the 2nd grade Mathematics lesson is in accordance with the teacher's explanation in the previous meeting, namely learning about the properties of multiplication. The learning steps include initial activities, core activities, and final activities. In the initial activity, the teacher conditions the class by arranging the students' seats according to the groups that have been formed, then the teacher assigns the class leader to lead the prayer. After praying, the teacher greeted the students then asked the students questions about repeated multiplication. Students answer questions from the teacher about multiplication.

The teacher gives an explanation about the learning objectives that will be achieved. Students listen to the explanation from the teacher about the learning objectives to be achieved. The core activity begins with the teacher distributing a set of number card media to students. Every 2 students

get one set of number card media. Then the teacher explains about the properties of multiplication by using multiplication domino media, then the teacher gives practice questions to students about the properties of multiplication. Students together with their classmates discuss the problems given by the teacher. The teacher explains about the properties of multiplication by using multiplication dominoes media then the teacher gives problems about the properties of multiplication to students. Students together with their peers discuss the problems given by the teacher. The teacher instructs students to form groups, then distributes Student Worksheets (LKS) to each group. In groups, students discuss the problems on the worksheet. After the students finish discussing, the teacher assigns group representatives to present the results of their discussion. The teacher gives feedback on the students' work. The teacher appoints some students randomly to work on the problem of the properties of multiplication in front of the class using the multiplication dominoes media. Students appointed by the teacher work on the problems given by the teacher using the multiplication dominoes media in front of the class. The teacher gives feedback on students' work.

In the final activity, the teacher and students together conclude the learning. Furthermore, students work on evaluation questions given by the teacher. The teacher closes the lesson by motivating students. In this stage the class teacher as well as the researcher carried out observations of the implementation of learning by using the multiplication domino card media at each meeting. This observation is aimed at the learning outcomes of multiplication counting, teacher activities in implementing learning, and student activities in learning. After implementing the action in cycle II by applying the use of multiplication dominoes media in mathematics learning, the data obtained from the assessment of the ability to count multiplication of students in class II UPT SDN 263 Kab. Pinrang.

Table 4. Student Score Data Cycle II 1st Meeting

No.	Interval	f	Presentase
1	35-45	1	4%
2	46-56	1	4%
3	57-67	3	11%
4	68-78	9	33%
5	79-89	5	19%
6	90-100	8	30%
Nilai Rata-rata		75,54	

The data from table 4. can be presented in the form of a graph as in Figure 4, namely the frequency graph of the value of the ability to count the concept of multiplication of students in class II UPT SDN 263 Kab. Pinrang in cycle II meeting 1.

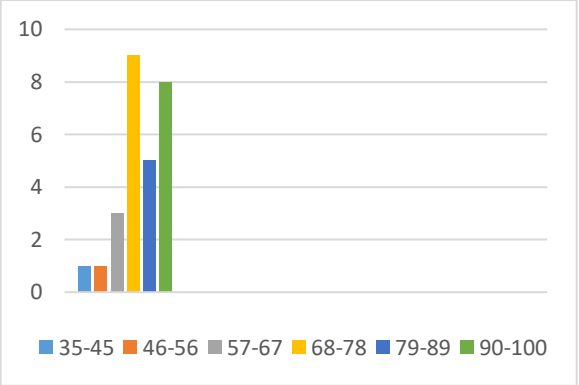

Figure 4. Data on Student Values Cycle II 1st Meeting

Based on table and graph 4, it can be seen that in the implementation of cycle II, the 1st meeting in learning mathematics with multiplication material as repeated addition. The number of students who achieved completeness was 25 out of 27 students or 93% with a class average of 75.54. Furthermore, data on the results of multiplication counting skills in cycle II meeting 2 can be seen in table 5. below.

Table 5. Data on Student Values Cycle II 2nd Meeting

No.	Interval	f	Presentase
1	23-35	1	4%
2	36-48	2	7%
3	49-61	1	4%
4	62-74	7	26%
5	75-87	9	33%
6	88-100	7	26%
mean		73,39	

The data from Table 5 can be presented in graphical form as shown in Figure 5.

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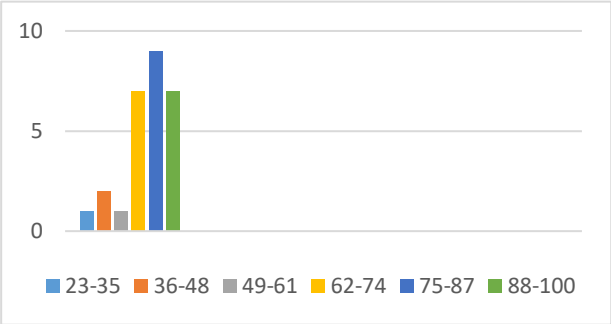

Figure 5. Data on Student Values Cycle II 2nd Meeting

Based on the table and figure 5, it can be seen that in the implementation of cycle II, the 2nd meeting in learning mathematics with the material of multiplying the properties of multiplication. The number of students who reached completeness was 23 out of 27 students or 85% with a class average of 73.39. Furthermore, based on the results of observations carried out and aimed at the activities of students in the implementation of learning has increased, this can be seen from the following explanation, the activeness of students who are classified as sufficient is only one activity, namely: Actively working on individual assignments. The activeness of students who are classified as active, namely: (1) active in paying attention to the explanation of the teacher, (2) actively using number card media, (3) active 0 1 2 3 4 5 6 7 8 9 10 Frequency of Value of Ability to Count Multiplication Concepts of Class II Students in Cycle II 2nd Meeting 23-35 36-48 49-61 62-74 75-87 88-100 61 answering teacher questions, (4) having the courage to ask, (5) actively working on group assignments. Based on the observation results for teacher activities that are classified as sufficient, namely: (1) using various sources, (2) using the right time according to planning, (3) being attentive to students, (4) providing follow-up. As for teacher activities that are classified as active, namely: (1) providing information appropriately, (2) using multiplication domino card media, (3) motivating students, (4) motivating groups, (5) using multiple methods, (6) conducting an observation process, (7) assessing the question and answer process, (8) assessing learning outcomes/formative tests. The achievement of the expected results is the achievement of KKM, namely a score of 65 on the material of multiplication as repeated addition and the properties of multiplication.

All data obtained in this activity including recording test results will be used as input to analyze the development of the multiplication counting ability of grade II students of SDN 263 Kab. Pinrang. d. Reflection The results of data analysis and discussion of feedback will be used as input to analyze the development of the multiplication counting ability of grade II students of SDN 263 Kab. Pinrang. Reflection The results of data analysis and feedback discussions on the implementation of learning by using number card media in cycle II, in general, have shown significant changes, where the activity or participation of students in learning has increased, they pay more attention and answer teacher questions, take more initiative and are creative in using the media. Understanding of the ability to count multiplication is more improved, which certainly affects the learning outcomes of multiplication as repeated addition and the properties of multiplication. Learners' participation in learning that is increasing makes the classroom atmosphere more enjoyable. From the analysis of the test results in cycle II, it is known that the first meeting reached an average class score of 75.54 and students who scored> 65 were 25 students (93%). The second meeting the class average value reached 73.39 with the number of students who scored> 65 as many as 23 students (85%). Based on the two meetings, the class average was 74.47 with the number of students who scored> 65 as many as 25 students or 93%.

Based on this research, learning is said to be successful if the percentage of completeness achieved by students who score> 65 reaches 75% or a total of 20 students. On the basis of the provisions of the results obtained at each meeting, learning through multiplication domino card media implemented in cycle II is said to be successful, so there is no need to continue in the next cycle. However, teachers must continue to carry out tutoring to improve the ability of students who get below the class average and carry out enrichment for students who score above the class average as a follow-up.The results of class action research in

cycle I, meeting 1, showed an increase in the ability to count multiplication as repeated 63 addition and the properties of multiplication which was marked by the average value of students reaching 63.93 with the percentage of students who reached a score> 65 as many as 19 students or 70%. However, in cycle I, the 2nd meeting for the material of the properties of multiplication only reached 60.18 with a percentage of students getting a score> 65 as many as 10 students or 37%. Overall, in cycle I, the class average score was 62.06 with a percentage of students who scored > 65 as many as 15 students or 56%. These results have not met the expectations, namely 70% of students who are complete, so the actions implemented in cycle I need to be improved in cycle II. The results in cycle II have shown a significant increase, initially the average value in cycle I meeting 1 was 63.93 with the percentage of students who scored> 65 only 70%, at the end of cycle II the average value reached 75.54 with the percentage of students who scored> 65 as much as 93%. Furthermore, the average value in the 2nd meeting of cycle I was 60.18 with the percentage of students who scored> 65 as much as 37%, at the end of cycle II the average value reached 73.39 with the percentage of students who scored> 65 as much as 85%. The increase in the multiplication counting ability of grade II students can be seen by an increase in the percentage of students scoring > 65 as listed in the frequency table of the multiplication counting ability scores of grade II students of SDN 263 Kab. Pinrang before action, after cycle I action, and after cycle II action.

Table 6. Average Value of Pre-Cycle, Cycle I and Cycle II Students

No.	Interval	Tindakan		
		Pra	Cycle I	Cycle II
1	23-35	2	3	1
2	36-48	7	5	1
3	49-61	11	9	2
4	62-74	3	5	8
5	75-87	2	3	12
6	88-100	2	2	3
mean		53,93	57,86	72,50
Number of Students Achieving KKM		7	10	23
Percentage of completeness		26%	37%	85%

Based on table 6, the graph can be seen in the following figure.

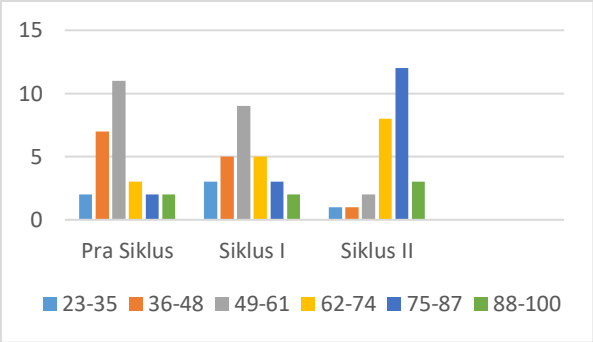

Figure 6. Average Value of Pre-Cycle, Cycle I and II Students

Based on the table and figure 4.6, learning using multiplication domino card media in cycle I showed an increase in students' multiplication counting ability, as evidenced by the class average value of 57.86 and 10 students (37%) out of 27 students reached mastery. Seeing these results, learning was continued to cycle II, which emphasized understanding of counting operations with multiplication dominoes media for two meetings. As a result, the class average increased to 72.50 with 23 students (85%) achieving mastery. Based on the overall action, it can be concluded that the use of multiplication dominoes media effectively improves the multiplication counting ability of grade II students. This can be seen from the increase in the percentage of student completeness presented in table 4.6. Thus, learning with multiplication dominoes is recommended to improve the multiplication counting skills of grade II students of UPT SDN 263 Kabupaten Pinrang.

Conclusion

The conclusion of this study is as follows: The application of multiplication dominoes media in learning Mathematics in class II UPT SDN 263 Pinrang Regency in cycle I has improved students' abilities, with the class average rising to 57.86 and 37% of students achieving mastery. In cycle II, after emphasizing the understanding of counting operations with number card media, students' counting skills improved further, with the class

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average reaching 72.50 and 85% of students were complete. These results prove that the use of multiplication domino card media is effective in improving multiplication counting skills in grade II students.

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