INTERNATIONAL JOURNA L OF EDUCATION, INFORMATION TECHNOLOGY AND OTHERS (IJEIT)
https://jurnal.unibrah.ac.id/index.php/IJEIT

Vol. 3, No.1, April 2020

MEDIA ROLE OF LEARNING ON THE IMPROVEMENT OF LEARNING OUTCOMES IN CONCEPT DISTRIBUTION IN MATH CLASS IV
(Classroom Action Research in class IV Sekolah Dasar Inpres Daeo)

Nurhani Mahmud

Dosen Pendidikan Guru Sekolah Dasar Universitas Pasifik Morotai
Email nurhanimahmud877@gmail.com

Article Info
Article History:
Received: March 20, 2020
Revised: March 26, 2020
Published: April 22, 2020
e-ISSN: 2623-2324
p-ISSN: 2654-2528
DOI: 10.5281/zenodo.3759987

Abstract:
This study aims to determine the role of instructional media, especially picture media on the improvement of mathematics learning outcomes in the concept of division in class IV Daeo Inpres Elementary School. This type of research is a Classroom Action Research (CAR) with research subjects of 30 students consisting of 12 women and 18 men. This action research was carried out with two cycles consisting of stages: planning, implementation, observation and reflection. Data collection techniques through observation and tests and data were analyzed in quantitative descriptive form. The results of this study indicate that the application of learning media can increase the activities of students and teachers in the teaching and learning process. Student activity from Cycle I an average score of 35% increased in cycle II to an average score of 95%. Likewise, teacher activity in cycle I had an average score of 40% and in cycle II teacher activity had increased with an average score of 92.50%. Likewise, student learning outcomes have increased from the first cycle to an average score of 51.38 and in the second cycle reached 83.33% or 25 students who completed 30 students. Classically the learning outcomes have reached the KKM 70 standard.

Keywords: Mathematics Learning Outcomes, Role of Learning Media

INTRODUCTION

One of the government programs in the context of educating the nation's life through studying nine years. One component of education is learning in schools, which cover various fields of study or subjects. One of the subjects taught early on is the ability to count or mathematics, in addition to reading and writing.

From the learning process of Inpres Daeo Elementary School (SD) shows that mathematics learning even though it has been taught from an early age, but in reality mathematics is still considered as a difficult subject and as an unpleasant subject by most students, so that as a result many students are not interested in learning mathematics in an deep. For students who hold this view will find it difficult to follow the lesson. Schools as a place for teaching and learning activities are expected to be able to make improvements and changes, so that the view of mathematics as a difficult and unpleasant subject can be changed. As educators, teachers have the responsibility in solving these problems.

In learning mathematics mathematics skills should be facts, concepts, abilities (*skills*) and principles not accepted procedurally without understanding and reasoning. Knowledge cannot be transferred from one's brain (teacher) to another person's head (students). As in the concept of division, the operation of addition and subtraction of negative integers, currently it seems that only memorizing the rules apply without understanding the actual concept, so most students are only able to understand in the form of memorization, whereas not all students have the same ability in memorize. Understanding concepts is one aspect of mathematical assessment. Assessment on this aspect aims to determine the extent to which students are able to accept and understand the basic concepts of mathematics that have been accepted by students (Muhsetyo et al, 2011: 12).

For students at the elementary level, aged between 7 and 12 years, basically their intellectual development is included in the concrete operational stage, because logical thinking is based on physical manipulation of objects. In other words, the use of media in learning mathematics in elementary is very necessary, because it is in accordance with the stage of student thinking. By using appropriate media / teaching aids, students will experience mathematics more clearly based on clear facts and can be seen. So that students more easily understand the material being taught. Therefore, learning mathematics in elementary schools is inseparable from the nature of mathematics and the nature of these students Hudojo in Heruman (2011: 10).

For this reason, utilizing learning media as a means of delivering material is a must. It is the teacher's job to be able to make the learning process interesting for students. The teacher must be able to integrate different student characters and of course can also make students feel happy and safe in accepting mathematics learning. According to Piaget in Desmita (2010: 101), that the thinking stage of elementary school / MI age children is still in the preoperational stage, where in the development stage the thinking is still not formal. On the other hand, mathematics is a deductive science with meaningful symbolic language, for that a teacher must be able to develop a learning system that is able to make students active and can correctly understand what they are learning. So that in the future be able to apply in real life everyday and be able to overcome real world problems. In addition to what stands out from mathematics is that people can form thought patterns into mathematical thought patterns that are systematic, logical, critical and full of accuracy.

But unfortunately, the technique of delivering the material by the teacher at this time is still only in the form of memories, students only listen and see the teacher's explanation on the blackboard then continue to work on the questions given. This certainly makes students not interested even do not like math lessons, especially if the teacher's appearance and techniques are less or not friendly, of course, will increase the small guts of students to want to learn mathematics. So, basically so that mathematics lessons in elementary schools can be easily understood by students, then it should be appropriate to teach mathematics using appropriate strategies in accordance with student characteristics. In addition, the use of learning media can support the success of student understanding. For this reason researchers feel that this must be addressed immediately and sought a solution in order to improve student learning outcomes towards mathematics and students also feel happy in the learning process.

By paying attention to the problems above, it is appropriate to learn mathematics in innovation. The use of appropriate learning media is expected to be able to improve student learning outcomes towards mathematics, so that researchers are interested in conducting this research with the title "The Role of Learning Media for Improving Mathematics Learning Outcomes in the Concept of Distribution in Class IV Daeo Inpres Elementary School South Morotai District, Morotai Island Regency" .

RESEARCH METHOD

Type of research used is Classroom Action Research (CAR) because it wants to apply the Learning Media to increase the interest in learning mathematics for grade IV SD Inpres Daeo students on the subject of Distribution Concepts.

According to Rahmat (2009: 10) a condition can be called a problem if it has the following criteria: (1) it becomes a problem for most students, (2) it becomes a problem for most teachers in the field of study. While the determination of actions in CAR meets the criteria: (1) can be done by teachers or students (2) does not take a very long time, (3) results can be seen immediately, (4) does not require excessive funds and equipment, (5) has conformity to the problem at hand.

Gail et al in Rahmat (2009: 15) state that the benefits that can be obtained from CAR can be seen in three components, namely teachers, schools and students (1) for CAR teachers can improve teaching practices or services in class, (2) for CAR schools can bring up innovations in the learning process which then leads to an increase in the quality of the school in question, (3) for students, CAR is a means of growing student interest so that students experience satisfaction in the learning process.

The research was conducted at SD Inpres Daeo, South Morotai District, Morotai Island Regency in Mathematics. This location was chosen due to various considerations, including its proximity and makes it easier for researchers to obtain valid and accurate data sources.

FINDINGS AND DISCUSSION

Before conducting the research action, the researcher conducted initial observations in order to find out more details about the initial conditions of the fourth grade students of SD Inpres Daeo. The initial observation activity was carried out on Monday, July 12, 2017 with the subject being grade IV students totaling 30 students. Observation activities were carried out to find out in more detail about the initial conditions of the ability of the fourth grade students before being given an action, after consulting with the fourth grade teacher Dapres SD Inpres Mrs. Maryani Burhan, S.Pd as an observer for the researchers, the researchers conducted a *pre-test* to find out the students' abilities towards Distribution Concept material. The results of this *pre-test* become one of the basic considerations for researchers to conduct research actions. Pre test results are as follows:

Table. 1. Data results *Pre Test* before action

NO	Interval	f	n	fn	P (%)	Note.
1	90-100	1	95	95	0	Above the KKM
2	80-89	2	84.5	169	6.66	
3	70-79	3	74.5	223.5	10:00	
4	60-69	1	64.5	64.5	3:33	KKM Under
5	<59	23	29.5	678.5	76.66	
	Total	30		1230.5	100%	

Average	41.01
Classical Completion	20%

Based on table 1. above it is known that theresults *pre-test* obtained by most grade IV students are still lacking in mastering mathematics, especially the concept of division. Out of 30 students, only 6 students completed and 24 students did not complete. The average value is 41.01, classical completeness is only 20%.

The results of this *pre-test* are far from the expected grade level of completeness, which is 75%. Therefore, the researcher will hold a CAR to improve Mathematics learning outcomes of the subject of the Division of Concepts through the learning media expectations. Researchers hope that media expectations on mathematics learning can improve student learning outcomes, so that class completeness can be achieved at least 75% of the total number of students with a value ≥ 70.

Discussion of Research Results

1. Learning Process by using instructional media

Based on data from research results, the results of teacher activity in the first cycle reached an average percentage score of only 20%. Whereas in the second cycle the teacher's activity reached an average score of 92.50%. Likewise for student activities, the first cycle had an average percentage score of only 35%, while the second cycle reached 95%. This is because researchers have been able to master classroom management and mastery of the material so students can follow the lessons well. This shows that the results of the activities of teachers and students of the first cycle and the second cycle have differences. Thus it can be seen that learning media can support the activities of teachers and students in the teaching and learning process in class. This is in line with the opinion of Briggs in Sanjaya (2008: 204) that the media is a tool to provide incentives for students to make the learning process happen. Therefore in introducing the concept of the division of mathematics in students should use concrete media so that children are easier to understand and to better understand.

The same opinion was also conveyed by Gagne in Nuha (2016: 251) that the media as a component component can stimulate students to learn. The same thing was also confirmed by Hadi in Nuha, (2016: 252) that the media are all things that can stimulate the learning process in students.

2. Student Learning Outcomes after the action by applying learning media

Tables. 2. Data on pre-test and post-test results in cycles I and II

No.	Actions	Average	P (%)	Remarks
1	Pre Test	41.01	20%	Under KKM
2	Cycle I	51.38	40%	Under KKM
3	Cycle II	78.16	83.33%	above KKM

Based on the table above, it can be seen that student learning outcomes in the mastery of the material concept of division of the results of the pre test, post test cycle I and post test cycle II experienced a significant increase. The number of students who scored above the KKM (70) reached 25 students from 30 students or the percentage reached 83.33%. This reflects that the mathematics learning of the concept of division carried out by researchers can be declared successful by increasing the average value of mathematics to reach 78.16.

In the first cycle the percentage of completeness reached 40% or 12 students who finished out of 30 students who took the post test cycle I with an average value of 51.38. The low results of the first cycle are caused by the teacher not yet maximally delivering the material clearly and paying less attention to the steps of learning, so students pay less attention to the material that causes the low test results.

But in cycle II, the teacher has been able to master the classroom situation well, convey the material clearly and do it according to the learning steps. this makes students seriously pay attention to the material that causes post test results in cycle II better. The percentage of completeness classically reached 83.33% or 25 students who completed 30 students. Thus, the use of media in mathematics learning of the concept of division can support the improvement of student learning outcomes.

This is supported by the opinion of Kemp and Dayton in Cecep and Sutjipto (2011: 23) that learning media can fulfill three main functions if the media is used for large numbers of individuals, groups or groups, namely in terms of motivating interest or action, present information, and give instructions. This is also reinforced by Anggani (2000: 44) that in order to achieve learning objectives and create a learning process that is not boring, teachers can use instructional media appropriately. The use of media in learning is to be able to bridge between abstract mathematical concepts to be more concrete, so students can understand what the teacher presents. For this reason, the use of media in the learning process is necessary to achieve the optimal learning objectives.

Conclusion

Based on the research findings, and discussion that has been elaborated on the application of learning media in Mathematics subject to the concept of division for fourth grade students of SD Inpres Daeo, it can be concluded that the application of instructional media can increase the activities of students and teachers in teaching and learning. This can be seen from the results of the analysis of student learning activity data in the first cycle is still low with an average score of 35%, but in the second cycle has increased with an average score of 95%. While the teacher's activity in the first cycle is still low with an average score of 40%, but in the second cycle the teacher's activity has increased ie with an average score of 92.50%. In addition, the application of learning media can improve student learning outcomes. This can be seen in the first cycle reaching an average score of 51.38. Student learning outcomes have not yet reached completion where there are only 12 students who have completed 30 students. In the second cycle completeness of student learning outcomes was achieved where there were 25 students achieving completeness or 83.33%. Classically the learning outcomes have reached the KKM standard of 70.

Suggestions

From the results of the study presented in the conclusions above, several suggestions are proposed as follows:

1. For teachers, can use learning media for learning especially Mathematics or allied subjects. as an alternative to solving problems.
2. Learning media is proven to improve student learning outcomes, for that in the teaching and learning process an effort to integrate learning media into lesson plans becomes an urgent thing to do.

REFERENCES

Muhsetyo, Gatot dkk, 2011, *Pembelajaran matematika SD*, Jakarta:Universitas Terbuka.
Hudojo, H, 1988, *Mengajar Belajar Matematika*, Jakarta: Depdikbud
Desmita, 2010, *Psikologi Perkembangan Peserta Didik*, Bandung:PT Remaja Rosdakarya
Kamal, Aden Rahmatul,dkk. 2011, *Matematika 4 SD Kelas IV*, Yudhistira

Nuha, Ulin, 2016, *Ragam Metodologi & Media Pembelajaran Bahasa Arab*, Yoyakarta: Diva Press.
Sanjaya, Wina, 2008, *Perencanaan dan Desain Sistem Pembelajaran*, Bandung: Prenada Media Group
Kemp dan Dayton dalam Cecep dan Sutjipto (2011:23)
Anggani, Sudono, 2000, *Sumber Belajar dan Alat Permainan*, Jakarta: PT Grasindo.
Sulistyorini, 2009, *Evaluasi Pendidikan Dalam Meningkatkan Mutu Pendidikan,* Yogyakarta: Teras