Penerapan Metode Ekspositori dengan Berbantuan Aplikasi Powerpoint untuk Meningkatkan Hasil Belajar Siswa SMP (PTK di SMPN 3 Mande)

Expository Method With Powerpoint Application To Increase Learning Outcomes Of Junior High School Students (CAR In SMPN 3 Mande)

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Abstract

This research is the Classroom Action Research (CAR). This study aims to improve student learning outcomes using the expository method assisted powerpoint. This research was conducted at SMPN 3 Mande Cianjur with the subject of class VII-B, amounting to 32 students. This study was done three cycles. The results showed the average value of student learning outcomes in the first cycle to the second cycle increased by 2.81% from the value of the first cycle is 70,63. In the third cycle, the average value of student learning outcomes decreased by 2.19% from the average value of the second cycle of student learning outcomes, namely 73.44 to 71.25. In addition, the third cycle, the average value of student learning outcomes increased by 0.63% from the average value of student learning outcomes become the first cycle is 70,63 71.25. Activities of students in the first cycle are quite active, the second cycle and the third cycle classified as active. Based on these results, we can conclude that the increase in students' mathematics learning outcomes through expository method aided by a powerpoint with material linear equations in one variable of class VII SMPN 3 Mande increased.

Abstrak

Penelitian ini merupakan Penelitian Tindakan Kelas (PTK). Penelitian ini bertujuan untuk meningkatkan hasil belajar siswa dengan menggunakan powerpoint dengan menggunakan metode ekspositori. Penelitian ini dilakukan di SMPN 3 Mande Cianjur dengan subjek kelas VII-B yang berjumlah 32 siswa. Penelitian ini dilakukan tiga siklus. Hasil penelitian menunjukkan nilai rata-rata hasil belajar siswa pada siklus I ke siklus II meningkat sebesar 2,81% dari nilai siklus pertama yaitu 70,63. Pada siklus ketiga, nilai rata-rata hasil belajar siswa mengalami penurunan sebesar 2,19% dari nilai rata-rata siklus II hasil belajar siswa, yaitu 73,44 menjadi 71,25. Selain itu, siklus ketiga, nilai rata-rata hasil belajar siswa meningkat sebesar 0,63% dari nilai rata-rata hasil belajar siswa menjadi siklus pertama yaitu 70,63 71,25. Aktivitas siswa pada siklus I cukup aktif, siklus kedua dan siklus ketiga tergolong aktif. Berdasarkan hasil tersebut, dapat disimpulkan bahwa Terdapat peningkatan hasil belajar matematika siswa kelas VII SMPN 3 Mande melalui metode ekspositori berbantuan powerpoint dengan materi persamaan linier satu variabel.

INTRODUCTION

Mathematical referred to as the queen of science and science waiter. Mathematics as the queen of science for learning in math will affect all areas of learning in school. While the science of mathematics as a waiter serving the mathematical meaning and are used in various fields of learning in school and in everyday life. An important part of studying mathematics is mathematics learning process itself. While the implementation of mathematics learning is not easy because facts show students have difficulties in learning mathematics. Difficulty in learning mathematics that causes students to have a low ability in mathematics.

It is revealed in the results of *the Program for International Student Assessment (PISA)* in 2012 (OECD, 2014: 19) the ability of junior high school students math Indonesia was ranked 64th out of 65 countries. One of the questions that tested in PISA is a matter of algebra (including linear equations and inequalities of one variable). The low ability students in the material algebra, particularly equation and linear inequality one variable can be seen also from the *Trends in International Mathematics and Science Study (TIMSS)* in 2011 which stated that the mathematical skills of students of SMP Indonesia was ranked 38th out of 42 countries and the ability of students for solving linear inequality form one variable such as $9x - 6 < 4x + 4$, Indonesia was ranked 33rd out of 42 countries. Therefore, the material equation and one variable linear inequality important to master students well.

Based on interviews with teachers SMPN 3 Mande mathematics, mathematics learning achievement of class VII is still low, especially in the matter of one variable linear equations. It can be seen from the average value is 67.42 students in the first semester of the academic year 2016/2017 are still under KKM school is 70. This is evident from the number of students whose value is above the KKM with 16 or 44.44 % of 36 students. From interviews with seventh-grade mathematics teacher also obtained information that in the learning process of teachers still use the traditional method of learning which is still dominated by the teacher. This resulted in the learning process in the classroom less active student interaction with teachers or students with students so that students are less skilled in answering questions or inquire about the concepts being taught and less motivated.

In addition, the fact that occur in the field based on interviews with some of the teachers for teaching mathematics in one variable linear equation states that the difficulties students understand the concept of a linear equation of one variable. Difficulties students understand the concept of variable linear equations then results in the weakening ability of students in solving problems of linear equations of one variable. This is demonstrated by the many mistakes that caused the students while performing the operation on the linear equation of one variable or create a mathematical model of word problems. So students can not find the set of linear equations completion of one variable.

One way to help students learn linear equations with two variables is using the expository method assisted powerpoint which is one of the alternatives in the learning of mathematics. Besides learning is done in three meetings with 3 cycles and 3 tests. The action plan will be implemented with the first cycle of use-based learning *lesson study* with

the help of this technology in terms of applications. Powerpoint As for the action plan of the second cycle and third cycle adapted to the results of the evaluation of previous cycles.

THEORITICAL REVIEW

Mathematics Learning Outcomes

According to Sudjana (2012: 22), "learning outcomes is the ability of the students after receiving their learning experience". Susanto (2013: 5) says that the learning outcomes are the changes that happen to students, both involving cognitive, affective and psychomotor as a result of learning activities. It can be concluded that the learning outcomes are changes that happen to students, whether it changes the cognitive, affective and psychomotor obtained after receiving a learning experience. The learning result is a benchmark used to determine the level of student success in knowing and understanding the subject, usually expressed as a value in the form of letters or numbers. Through the learning process students are expected to acquire certain knowledge and skills as well as changes in him.

The results obtained after the holding of the evaluation study, Mulyasa (2007) states that the evaluation of learning outcomes is basically an activity to measure behavioral changes that have occurred. The results of the study indicated that academic achievement is an indicator of changes in student behavior. The evaluation is conducted to determine students' achievement of learning achieved. To evaluate an objective evaluation is needed, comprehensive and sustainable.

Based on the theory of Bloom's Taxonomy of learning outcomes in order to study the three categories of the sphere is achieved through, among others, cognitive, affective, psychomotor. The details are as follows:

1. Cognitive domains, with regard to intellectual learning outcomes of 6 aspects: knowledge, comprehension, application, analysis, synthesis, and evaluation.
2. Affective domain, in terms of attitudes and values. Affective domain includes five levels of capability of receiving, answering or reaks, assess, organization and characterization with a value or complect value.
3. Psychomotor include motor skills, manipulation of objects, neuromuscular coordination (connect, observe).

Expository Method

Expository method is classical teaching method which only gives teachers in the delivery of common things, concepts with examples in the hope the students learn from the information provided, as stated by Russeffendi (1980: 171-171), "the expository method begins activities by teachers to provide information (address) to explain a concept, demonstrating his skills on the pattern, the rule is a concept, the students asked the teacher to check whether the student has understood or not, the teacher gives an example of the application of the concept, the students finish, activities ended with students to record material described ". Then Sudjana (1989: 73) saying which in teaching students expository method is seen as an object to receive what is given by the teacher. Usually, teachers convey information about the study material in the form of verbal explanation and narrative. Based on the above statement can be concluded that the expository method is a method of learning that is used to provide information beforehand definitions, principles and concepts of the subject matter as well as provide examples of problem-solving exercises in the form of lectures, demonstrations, discussion, and assignments.

Implementation of the expository method according to Ruseffendi (1980: 171) is as follows:

1. The teacher provides information in times or parts are required, for example at the beginning of teaching, on the new topic, at the time of administration example and so on.
2. After the teacher to provide information, the teacher began to explain a concept, students ask the teacher to check whether the student has understood or not understood.
3. The next activity was the teacher gives examples of problems, then asked the students solve the problems in front of which is on the board.
4. The final activity is the student record material that has been delivered, it is likely equipped with homework questions.

According to Sanjaya (2008: 189), the expository method has advantages such as the teacher can control the order and breadth of learning, so he can determine the extent to which students master the learning materials are delivered. The expository method is considered most effective when the subject matter is broad enough to be mastered students, while the time you have to learn is limited. Through the expository learning strategies, students can hear through the narrative about a student's subject matter is also well able to

see or *observation* (through the implementation of demonstration). This learning method can be used for a number of students and large class sizes.

The weakness of the expository teaching methods includes a method of learning this can only be possible to the students who have the ability to listen to them as well. This method may not be able to serve well the difference each individual differences in the ability of knowledge, interests, and talents, as well as differences in student learning styles. This method is difficult to develop students' skills in terms of social skills, interpersonal relations, as well as critical thinking skills. The success of expository method depends on what teachers have such preparation, knowledge, confidence, passion, enthusiasm, motivation, and ability to manage the class without it has been ascertained that learning is not likely to succeed. The knowledge students will be limited to what the teacher remember this learning method of communication styles are more prevalent in one direction*(one-way* communication) so the opportunity to control the students' understanding will be limited too.

RESEARCH METHODS

The method used in this research is a classroom action research. According to Purwadi (Suranto, 2008: 10), "action research is a form of research undertaken by teachers to solve problems encountered in carrying out a duty, which is managing the implementation of teaching and learning activities". In addition, according to Hopkins (Masnur Muslich, 2012: 8) states that action research is a form of assessment that is reflective, which is done by the offender acts to increase the stability of the rationale for their actions in implementing the tasks and deepen understanding of conditions in the teaching practice,

This study was conducted on 13 to 20 November 2017 in the first semester of the academic year 2017/2018 in SMPN 3 Mande Cianjur. The subjects were students of class VII-B. Class subjects were selected by using purposive sampling (sampling technique aims or consideration) because researchers have considered in taking the subject with the aim of which is to improve the learning outcomes of mathematics students of class VII. In accordance with the purpose of research, data obtained from the observation, assignments, and tests: 1) observation, in the form of qualitative data, using tables observation to determine the level of activity of students during the learning takes place. Observator is given observation sheet by filling in the sheet provided. 2) The task consists of a task

group and individual assignments each in the shape description. aims to find out the results of students' mathematics learning in each execution of actions/meetings. 3) Tes, is a measuring tool in the form of questions given to students who want to study. In this research achievement test conducted at the end of each cycle, shaped test item description.

RESULTS AND DISCUSSION

A. Data Analysis of Research Results

Observations

Based on observations and student learning outcomes obtained in each cycle can be seen expository recapitulation aided by *a power point*in Table 1 below.

Tabel 1. Expository Assisted Methods Powerpoint in Each Cycle

No	Student Activity	Observations					
		Cycle I (S1)		**Cycle II (S2)**		**Cycle III (S3)**	
		Total	Study (%)	Total	Study (%)	Total	Study (%)
1	Students pay attention to the teacher's explanation	14	43.75	17	53.125	20	62.5
2	students asked the teacher	3	6.25	13	40.625	17	2
3	students can answer questions from teachers	3	9.375	6	18.75	3	9.375
4	students presenting results study group	0	0	4	12.5	1	3.125

Based on table 1 above, it can be concluded that the cycle the first (S1) with expository there are 14 people (43.75%) the number of students who pay attention to the teacher's explanation, 2 (6.25%) students asked the teacher, and 3 (9.375%) students can answer the questions of the teacher. In the second cycle (S2) there is an increase in the student activity such as increasing 3 (9.375%) of students who pay attention to the teacher's explanation, 11 (34.375%) of students asked the teacher, 3 (9.375%) students can answer questions from the teacher, and 4 people (12.5%) presenting student learning outcomes group. In addition, in the third cycle (S3) there is increased activity among students increased 3 (9.375%) students pay attention to the teacher's explanation, 4 (12.5%) of students asked the teacher. But the activity students can answer the questions of teachers decreased 3 (9.375%) and the activity presenting student learning outcomes group also decreased 3 (9.375%).

Study Results

Table 2. Data Analysis of the Average Value of Learning Outcomes At each cycle

Variable Rate	Assessment		
	Cycle I (S1)	**Cycle II (S2)**	**Cycle III (S3)**
Rated	100	90	90
Value Lowest	50	60	60
Average –Rata	70.63	73.44	71.25%
Above KKM Completeness	59.375	87.5	71.875

Based on table 2 it can be concluded that an increase in student learning outcomes in the second cycle than the first cycle as seen in the increase in the average value of students by 2, 81 who originally 70.63 into 73.44 and the percentage of student mastery of the KKM amounted to 28.125%, which was originally 59.375% to 87.5%. While the third cycle there is a decrease in student learning outcomes seen in the average value of 2.19 which was originally 73.44 down to 71.25 and the percentage of student mastery of the KKM decreased by 15.625%, which was originally 87.5 becomes 71.875. However, when compared with the first cycle, the third cycle increased as seen in the increase in the average value of 0.63 students who initially 70.63 into 71.25 and the percentage of students against the KKM completeness of 12.5% which was initially 59.375 % to 71.875%.

Judging from the acquisition value of the learning outcomes first cycle, second cycle and third cycle that has been inspected and suspended load in Table 3 below.

Table 3. Data Analysis Values Learning OutcomesAt each cycle

No	Interval Value	Assessment					
		Cycle I (S1)		**Cycle II (S2)**		**Cycle III (S3)**	
		Frequency	Students (%)	Frequency	Students (%)	Frequency	Students (%)
1	≤ 90	3	9.375	1	3.125	1	3.125
2	80 ≤ x<90	4	12.5	7	21,875	5	15.625
3	70 ≤ x<80	12	37.5	20	62.5	17	53.125
4	x ≤ 70	13	40.625	4	12.5	9	28.125
	Total	32		32		32	

Students who have reached complete learn individually based criteria for minimum completeness SMPN 3 Mande ≥ 70 (complete) in the first cycle (S1) is 19 students (59.375%) of 32 students, while in the second cycle (S2) students who achieve

mastery learning there are 28 students (87.5%). This means that after the second cycle learning outcomes of students has increased. Meanwhile, the third cycle (S3) students who achieve mastery learning there were 23 students (71.875%). That is, in this third cycle learning outcomes of students has decreased.

B. Discussion

Cycle 1

Teachers implementing learning by dividing students into 6 groups. Learning in the first cycle teachers instill the concept of algebraic operations on the material linear equation of one variable. Then the teacher shared worksheets that have been created. Students are asked to do worksheets in accordance with the instructions given. LKS workmanship done in groups.

Furthermore, the teachers implement a written test to measure student learning outcomes. Test questions and essay description is given in the form of 10 questions. The test item is given to each student to work with. If the results of data analysis tests have not yet reached an indicator of success. Research entered the stage of the second cycle.

Implementation of mathematics learning with the help of power point on the topic of operations on linear equations in one variable cycle I had not been effective. The average value of the results for students at the first cycle is still low at 70.63 with the percentage of completeness only 59.375% and has not reached indicators of success, the rest there are 13 students (40.625%) who did not complete. The low results of data analysis in the first cycle is not free from the problems that arise when research implements selected.

The problems that arise are as follows: (1) students have trouble operating the reduction of the number is negative, (2) a mistake in operating the linear equation of one variable, (3) enthusiastic students in group discussions is still lacking, there are some students who are not actively involved work together in groups, the discussion is only done by one or two members of the group, (4) the teacher is less able to streamline the allocation of a predetermined time.

To overcome these problems, teachers do some improvement so that the problems that arise from occurring again in the second cycle, namely: (1) Master instill the concept of integer operations on students, (2) Master emphasized again the operation of algebra on the material linear equations of the variables that the students did not err in them on the board. This is done to minimize mistakes students. (3) The teacher must

give more motivation to the students who look less active during the learning process in a way approached him, asking questions, and provide reinforcement to actively engage in group discussions. (5) Teachers use the time more efficiently provide a benchmark time to students during a group discussion.

Figure1. Activity Students in Cycle 1

Cycle II

Based on the results of observation and evaluation on the action cycle 1, the researchers along with the teacher plan the second cycle of action for the weaknesses that occur in cycle 1 can be improved and achieve maximum yield hasill. Things that must be improved by the teachers on the implementation of the second cycle of action are as follows: 1) The teacher must convey the scope of material and explanation of activity description after the syllabus / teaching materials; 2) The teacher must involve students in seeking information and learning from various sources; 3) Teachers should actively involve students in various learning activities; 4) Teachers should membingbing students reading and writing diverse through certain meaningful tasks; 5) The teacher should make an assessment or reflection on the learning activities that have been done; 6) The teacher should provide feedback on the learning process.

The teacher shared worksheets that have been created. Students are asked to do worksheets in accordance with the instructions given. LKS workmanship done in groups. Furthermore, the teachers implement a written test to measure student learning outcomes. Test questions and essay description is given in the form of 10 questions. The test item is given to each student to work with. Then the results of the test data are collected and analyzed. Research into the cycle stage III.

The results of the data analysis, the value of the average student learning outcomes is 73.44 with the percentage of 87.5% completeness study. The results of students in the second cycle increased, and the percentage of mastery learning has reached a predetermined indicator of success.

Figure 2. Activity Students in Cycle 2

Cycle III

The teacher implementing learning in accordance with the lesson plan made at the planning stage. The material taught in the third cycle is different from the first cycle that creates a mathematical model of word problems and solves problems in a matter of a story. Then the teacher shared worksheets that have been created. LKS workmanship done in groups.

Furthermore, the teachers give a written test to measure student learning outcomes. Test questions and essay description is given shape by 5 questions. The test item is given to each student to work with. Then the results of the test data are collected and analyzed. Research into the cycle stage III.

The results of the data analysis, the value of the average student learning outcomes is 71.25 with a percentage of 71.875% mastery learning. The results of students in the third cycle have decreased and the percentage of mastery learning has reached a predetermined indicator of success.

Figure 3. Activity Students in Cycle 3

The problems that arise are as follows: (1) students' difficulties making a mathematical model of word problems, (2) enthusiastic students in group discussions is reduced, there are some students who are not actively involved work together in groups.
Based on these results it can be concluded that there is increased activity of students and student learning outcomes in learning by using the expository method on the material of one variable linear equation in SMPN 3 Mande. This is in line with research Mato (2015) which states that the application of expository learning models can increase the activity and student achievement in material Function Junior High School eighth grade 2 Sano Nggoang the academic year 2013/2014.

CONCLUSIONS

The results showed the average value of student learning outcomes in the first cycle to the second cycle increased by 2.81% from the value of the first cycle is 70,63. In the third cycle, the average value of student learning outcomes decreased by 2.19% from the average value of the second cycle of student learning outcomes, namely 73.44 to 71.25. In addition, the third cycle, the average value of student learning outcomes increased by 0.63% from the average value of student learning outcomes become the first cycle is 70,63 71.25.

Students who have reached complete learn individually based criteria for minimum completeness SMPN 3 Mande $\geq$ 70 (complete) in the first cycle (S1) is 19 students (59.375%) of 32 students, while in the second cycle (S2) students who achieve mastery learning there are 28 students (87.5%). This means that after the second cycle learning outcomes of students has increased. Meanwhile, the third cycle (S3) students who achieve mastery learning there were 23 students (71.875%). That is, in this third cycle learning outcomes of students has decreased.

Activities of students in the first cycle are quite active, relatively inactive in the second cycle and the third cycle classified as active. Based on these results, we can conclude that the increase in students' mathematics learning outcomes through expository method aided by a power point with material linear equations in one variable of class VII SMPN 3 Mande was increasing learning results from the first cycle to the third cycle and active students in learning.

RECOMMENDATION

1. For teachers, the expository approach with the help of powerpoint should be used as an alternative learning in the purpose of improving student achievement be it cognitive and affective..
2. Before using the learning with Expository approach with the help of powerpoint should all the preparation and planning done carefully, especially in setting the time because in class action research requires considerable time in the implementation process.
3. The suggestions in improving the quality of learning in a matter of one variable linear equation are to use a more varied learning method aided by advances in technology either by using mathematical applications or with power point can increase the activity of students in the learning process.

NOTE

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