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MINUPI uto Improve Disaster Mitigation Learning Outcomes pthere are Students with Disabilities

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Abstract. One of the lessons in disaster mitigation is awareness of disaster risk reduction using MINUPI media which provides real experiences of students with disabilities about natural disasters, especially erupting volcanoes. The purpose of the study is to improve learning outcomes and the activeness of students with special needs in disaster mitigation learning. The implementation of research in disaster mitigation learning follows the design of a type of classroom action research for 2 cycles, consisting of 4 activities, namely planning, action, observation and reflection. The application of disaster mitigation learning with MINUPI Media is carried out in several steps, starting with the planning stage where dividing students into groups, delivering learning objectives, presenting material, giving assignments to groups in the form of worksheets, practicing making MINUPI media and giving evalusai. The results showed that student learning outcomes improved in the time before applying learning with MiNuPi media compared to after media use. The learning results showed that the average class, which was originally 63.75 in the preliminary observation stage, increased to 68.12 in cycle I, and subsequently increased by 81.25 in cycle II. The classical completion, which was originally 25% at the preliminary observation stage, increased to 37.5% in cycle I, and to 100% in cycle II. Student activity increased from 25% at the preliminary observation stage, to 37.5% in cycle I, and to 100% in cycle II.

Keywords: MINUPI Media; learning outcomes; student activities

1. Introduction

Recalling the incident 11 years ago, the sound of thundering, thunderous noises endlessly, the sound of motorcycle horns and cars frenzied on the highway in front of the house. Disaster never greets with a smile first, comes suddenly but we can greet it with a disaster mitigation. Definition of disaster according to the United Nation Development Program (UNDP) in . "A disaster is an extreme event in the natural or human environment that adversely affects human life, property or activities to the degree that it causes disaster". Anyone seems to have no power to fight disasters, what can be done is to always be ready at all times with careful preparation and this is what underlies the author to carry out research in disaster mitigation learning for students with special needs, especially students with disabilities in class X SMALB D at SLB BC Wiyata Dharma 3 Ngaglik. (2019)Based on stating that disaster mitigation learning as a disaster management effort to reduce disaster risk, Undang Undang Nomor 24 Tahun 2007 Tentang Penanggulangan Bencana both through physical development and awareness and increasing the ability to face disaster threats, as well as being contained in who has a vision of realizing a culture of safety and preparedness for disasters through an education decentralized system that is able to support disaster risk reduction through vulnerability reduction efforts and capacity building in the sector. education by prioritizing the integration of disaster mitigation materials in various learning activities in schools, especially in strategies for vulnerable groups in schools, namely pregnant women, elderly people and children with special needs. Surat Edaran Mendiknas No 70a/MPN/SE/2010 The effort carried out in mitigation aims to reduce or even eliminate losses and casualties due to the occurrence of natural disasters, so mitigation is a preparation before the occurrence of disasters .(Christopher et al., 2001; de Vet et al., 2019; Rayawan et al., 2021)

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The learning that has been carried out on students with disabilities in class has experienced problems, namely the low learning outcomes of students in disaster mitigation learning, students seem to be passive in paying attention to the lesson, based on interviews with students, the results are obtained that students feel that disaster mitigation learning is not needed. Class X SMALB D students consisting of 8 students, including 2 students with disabilities with a composition of 4 male students and 4 female students. Class X students are a heterogeneous class in terms of age and gender

Based on the results of initial learning, data were obtained that students who obtained grades with qualifications Either 2 students or 25%, qualifications Enough 3 students or 37.5%, and qualifications Less 3 students or 37.5%. Meanwhile, the average class achieved by class X SMALB D students is 63.12. If referring to the demands of the 2013 Curriculum, that the Minimum Completion to be achieved by students is 75, then the students who can be declared complete are 2 students or only 25% of 8 students.

The implementation of learning at this stage shows that class X SMALB D students at SLB BC Wiyata Dharma 3 Ngaglik still have problems with their learning outcomes. This problem was then discussed with partner teachers and then revealed that student involvement in learning is still very low, even the ongoing learning situation tends to be teacher centered. Students are less actively involved in learning and tend to be passive. During the lesson, it appeared that only 2 students were seen actively asking questions and asking opinions. Based on this, teachers try to provide learning that allows students to be more actively involved. The use of MINUPI (Miniature Volcano) Media was chosen to be a solution in dealing with these problems. In learning with MINUPI Media, students will be guided to complement each other, help each other, empathize with each other in the practice of making MINUPI media, so that learning is expected to be more active. The focus of writing in this research is on the application of disaster mitigation learning with MINUPI Media to improve disaster mitigation learning outcomes and student activity in social studies subjects with material on Volcanoes class X SMALB D at SLB BC Wiyata Dharma 3 Ngaglik. The purpose of this study is to improve disaster mitigation learning outcomes and the activeness of students with special needs in disaster mitigation learning.

The benefits of writing in this study include being expected to motivate teachers to be able to carry out fun learning for students, students with disabilities to get real experiences, be able to actively participate in learning, help each other, empathize with each other, in making MINUPI Media which ultimately improves overall student learning outcomes and as a very useful information material about training for teachers in order to create fun learning and support the achievement of optimal and sustainable student development.

2. Method

In the implementation of this research, it follows the design of a type of class action research consisting of 4 activities, namely planning, action, observation and reflection. According to O'Brien (Mulyatiningsih, 2011), classroom action research is a study that is carried out when a group of people (students) are identified as a problem, then the researcher (teacher) establishes an action to overcome it. Another expert opinion says "Classroom Action Research (PTK) is research conducted by the teacher in his own classroom through self-reflection with the aim of improving his performance so that student learning outcomes improve." (Aqib et al., 2011, p. 3) From several understandings of experts, it is concluded that Classroom Action Research (PTK) is one of the studies that is an effort to observe and collect information in learning activities, through an action (treatment) deliberately raised by teachers as self-reflection in order to improve and improve student learning outcomes in a positive direction.

The implementation plan of cycle I begins with the preparation of learning tools, namely the Syllabus and RPP, namely Basic Competencies: Identifying disaster mitigation activities that will be carried out during 2 meetings.

The application of disaster mitigation learning learning with MINUPI Media is carried out in several steps, starting with the planning stage where dividing students into groups, delivering learning objectives, presenting material, giving assignments to groups in the form of worksheets, practicing making MINUPI media and giving evalusai.

In the planning stage, instruments are prepared, namely observation sheets for the application of disaster mitigation learning with MINUPI Media, observation sheets for student activity in practice making MINUPI media, Learning Implementation Plans and evaluation tools.

To determine the increase in student learning achievement in cycles I and II, the following formula is used:

1. Determine the grade average:

$$\bar{X} = \frac{\text{Number of Student Grades}}{\text{Number of Students}}$$

The average expected class in the study was ≥ 85.

2. Determine individual completeness:

$$Ki = \frac{\text{Student achieved}}{\text{Maximum Value}} \text{ score x } 100\ \%$$

Provided that if the percentage of individual completion reaches $\geq$ 75%, the student is considered complete.

3. Calculating classical completeness:

$$KK = \frac{\text{Number of Students Completed}}{\text{Total Student Count}} \times 100\%$$

Provided that if the percentage of classical completion reaches $\geq$ 85%, the class concerned is considered complete.

4. Student Activity

Student liveliness is converted into a standard of 100, namely:

$$K = \frac{\text{Gain score}}{\text{Maximum Score}} \times 100$$

For the value of student activity in one cycle, it is obtained from the average score of each meeting divided by the number of meetings. Student activity in this study is expected to be 80% of students qualified Good and Very Good.Data results, both daily test scores and student activity are converted into qualitative data by referring to Conversion Table 1:

Table 1: Value Conversion Guidelines

SCORE	QUALIFICATION
90 - 100	Very Good
75 -<90	Good
60-<75	Enough
0 - <60	Less

3. Results and Discussion

In the implementation stage, data were obtained that the results of learning I appeared that the condition of learning outcomes was not as expected. The findings of the learning outcomes show that students have not played an active role in learning. Therefore, together with the team, a Syllabus and RPP for the Volcano Theme were compiled which were presented in 2 meetings.

The subject matter presented was Volcanoes and the practice of making MINUPI media. The steps taken in this learning are: Dividing students into groups, conveying learning objectives, presenting material, assigning assignments to groups in the form of worksheets, practicing making MINUPI Media, and giving evalusai. The results of the group work showed that 1 group received the title of Great Team and 1 other group received the title of Good Team.

The second meeting of cycle I was held by discussing volcano material and the practice of making MINUPI media. In this learning, the steps taken are the same as the first meeting. There is something interesting in this meeting, that is, students are starting to be more active than the previous meeting. The team award categories for all groups are still the same, namely getting the title of Great Team and Good Team.

There is something felt to be lacking in this cycle, that is, the presence of difficulties in group communication. There are 2 students in a group who are still unable to create their own MINUPI media and are still afraid and hesitant in answering questions from the teacher, thus hindering the discussion process and doing assignments. Finally, given a solution in one group, there was one student who could not make MINUPI media and was still afraid and hesitant in answering questions from teachers. In addition, awards in groups and individuals are more concerned by displaying the results of group achievements.

Based on the implementation of the first cycle, significant learning results were obtained, as can be seen from the number of students who scored with Very Good qualifications of 1 student (12.5%), qualifications of either 2 students or 25%, qualifications of Enough 5 students or 62.5%, and qualifications Less absent or 0%. The grade average also increased from 63.75 before using MINUPI Media to 68.12 after using MINUPI Media. Likewise, the classical completion becomes 3 students or 37.5% of 8 students. The award was categorized as a Great Team.

Table 2: Learning outcomes Cycle I

Category	Student Name	Cycle Value I	Qualifica-tion	Ket.
Tall	Luna	90	Very Good	1.Bima
	Daughter	75	Good	2. Arjuna
	Ramdani	75	Good	
Keep	Iwan	60	Enough	
	Avif	65	Enough	
	Rizky	60	Enough	
	Melin	60	Enough	
	Anita	60	Enough	
Grade grade average 68.12				

The achievement of learning outcomes in cycle II has experienced a significant development as well, it can be seen in the increase in learning outcomes from the number of students who scored with Very Good qualifications was 3 students or 37.5%, qualifications Good 5 students or 62.5%, and qualifications Less absent or 0%. The grade point average also increased from 66.25 to 81.25 in cycle II. Likewise, classical completion increased from 3 students or 37.5% to 8 students or 100% of 8 students. For awards according to the achievements of the daily replay results, the entire team received Super Team qualification.

Table 3: Learning outcomes Cycle 2

Group	STU-DENT NAME	INITIAL SCORE	FINAL SCORE	SCORE CAMP.	Team categories
Bima	Luna	90	95	20	Super team
	Daughter	75	90	30	
	Ramdani	75	90	30	
	Avif	65	85	30	
Arjuna	Melin	60	80	30	Super team
	Iwan	60	80	30	
	Rizky	60	80	30	
	Anita	60	80	30	
Team progression score of 30					

Cycle II learning outcomes are 85

The activeness score of students who obtained qualification qualifications Either 3 students or 37.5%, and students who obtained qualifications Enough is 5 students or 62.5%. While students who obtain qualifications Less is none or 0%. This state of student activity is much improved compared to the activeness of students before using the learning method with MINUPI Media, where only 2 students were seen to be active by observers.

The activeness of students in cycle I taken from the average activity of students at the 2nd, 3rd and 4th meetings is as in the following table 4:

Table 4: Results of Observation of Student Activity Cycle I

No	Student name	Activeness value MEETING			Average	Qualification
		II	III	IV		
1	Anita	68	64	72	68	enough
2	Melin	68	68	68	68	enough
3	Daughter	76	76	84	79	good
4	Luna	80	80	80	80	good
5	Ramdani	90	90	92	90	good put
6	Rizky	76	76	80	77	good
7	Avif	64	60	64	63	enough
8	Iwan	68	68	72	69	enough

Based on the description above, in order to further motivate students, individual scores and group development points are cross-sectioned or aired at the beginning of each meeting. This was done based on an agreement with students to remind students of the results of student achievements in the implementation of previous learning, and it was agreed that it would be continued with cycle 2 as a follow-up.

The results of the observer's recording of the activeness of the second cycle students are as in the following table 5:

Table 5: Results of Observation of Student Activity Cycle II

No	Student name	Activeness value				Average	Qualification
		Meeting					
		VI	VII	VIII	IX		
1	Luna	88	88	92	92	90	good put
2	Daughter	80	80	88	88	84	good
3	Ramdani	88	88	92	92	90	good put
4	Avif	80	80	88	88	84	good
5	Melin	84	84	88	88	86	good
6	Iwan	80	80	88	88	84	good
7	Rizky	88	92	88	92	81	good put
8	Anita	80	80	88	88	84	good

Overall from the results of research on disaster mitigation learning using MINUPI media can be described in Figure 1:

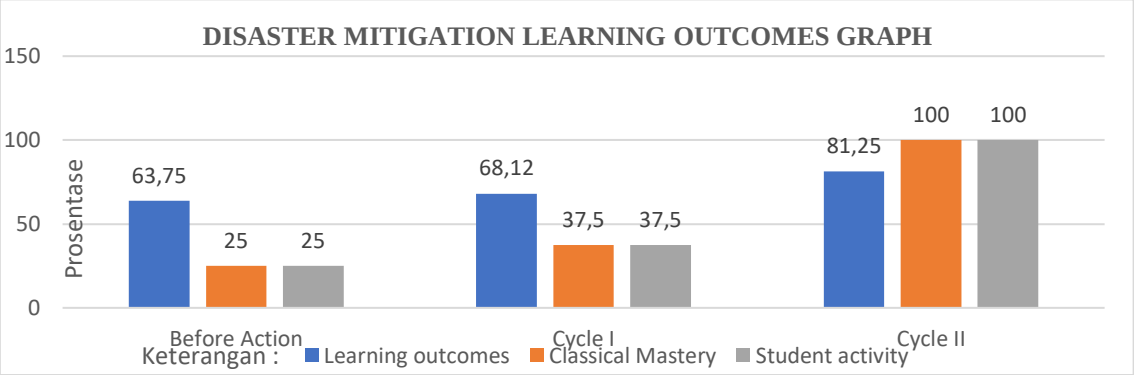

Figure 1: Learning Disaster Mitigation Using MINUPI Media

The achievement of learning outcomes in learning II has experienced significant development. The increase in learning outcomes can be seen from the number of students who scored with Very Good qualifications were 3 students or 37.5%, good qualifications of 5 students or 62.5%, and qualifications Less absent or 0%. Grade averages also increased from 66.25 to 81.25 in learning II. Likewise, classical completion increased from 3 students or 37.5% to 8 students or 100% of 8 students. For awards according to the achievements of the daily replay results, the entire team received Super Team qualification.

Student activity based on the results of observations, shows that students who obtain the Amat Baik qualification are 2 students or 25%, the qualification of either 6 students or 75%, and students who obtain qualifications Less during learning in learning II is absent or 0%. Overall, students whose activeness has received the Amat Baik and Baik qualification is 8 students or 100%.

Discussion

As a follow-up to the implementation of cycle I, the implementation of cycle II begins with the preparation of learning tools, namely the Syllabus and RPP, namely Basic Competencies: 3.1. Describe the structure of the earth to explain the phenomenon of earthquakes and volcanoes, as well as the actions needed to reduce the risk of disasters that will be carried out during 2 meetings. The Basic Competencies taught at the first meeting of lesson II are: Describing the structure of the earth to explain the phenomena of earthquakes and volcanoes, as well as the actions needed to reduce disaster risk. The learning steps taken are the same as the steps in learning I, except

that at the first meeting of learning II begins with the division of students into new study groups for the implementation of practical activities to make MINUPI Media.

In this learning activity, most of the students are actively involved in the discussion of MINUPI media making practice activities. With good apperception and explanation of the material makes students interested in asking questions. As usual, student activities are recorded by the observer through a prepared observation sheet.

The second meeting for learning II, the material taught in this meeting is: the practice of making MINUPI Media. The learning steps taken are the same as the steps at the previous meeting. In this meeting, there was a group whose discussion process went poorly because there were 2 students who could not take part in the learning due to illness. Observations of student activities continue as usual and students seem to be undisturbed even though there are other groups that lack members. In this meeting the students remained enthusiastic and active even though they had just finished cleaning the classroom and yard, to keep the students active in group discussions, control and teacher assistance were sought to reach the whole group. So during group discussions, the teacher still goes around from one group to the other and it seems that student learning activities are also going better

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The learning outcomes achieved in cycle II are already very good because they have increased significantly and are in accordance with the expected success indicators. The indicators of success to be achieved, namely the average grade 85, classical completion 85%, and the activeness of 80% of students who get the Amat Baik and Baik qualifications have been met. The learning outcomes achieved in cycle II are already in accordance with what is expected and more than expected. The established indicators have been met, so this research is no longer continued in cycle III.

The implementation of the first cycle shows that students can work together in learning through group discussions, practice making MINUPI Media and working on existing worksheets. The implementation of this learning is initially time-consuming and rigid, but at the next meeting students are more accustomed and more empowered in learning. In cycle II students are increasingly familiar with learning methods with MINUPI Media. Some problems in cycle I, such as the saturation of students in groups can be overcome by the preparation of new group formations based on the map of academic abilities achieved in cycle I. As a result, both the implementation of cycle I and cycle II has a positive impact on improving the learning outcomes of Disaster Mitigation students of class X SMALB D at SLB BC Wiyata Dharma 3 Ngaglik.

The application of learning with MINUPI Media to class X SMALB D students greatly affects the disaster mitigation learning outcomes achieved by students where in this learning students can learn through discussion, mutual assistance, mutual teaching, and get awards in making MINUPI Media making practices. Another factor that is very influential in the application of MINUPI Media to the learning outcomes of class X SMALB

D students is the positive appreciation of group and individual achievements. In the implementation of learning with MINUPI Media in class X SMALB D, the reward for a successful group or individual is to invite the group or individual to stand up and then be experienced by the teacher. The results of the achievements are cross-sectioned in front of the class so that students become proud of their learning results. Slavin, said that the most effective approach to classroom management for learning with MINUPI Media is to create a positive reward system based on groups. The teacher rewards the behavior of the group he or she wants in the classroom so that the other group will make the group that gets the award a model.(Slavin, 2008)

By being rewarded students become more active and motivated to play more of a role in the teaching and learning process. Group learning encourages students to become active. (Kartini, 2022; Saleh et al., 2022)Dby working well together in his group, such as being an active listener, explaining to friends, discussing, and so on. The importance of student activities in learning(Aras & Arhas, 2022; Nur, 2017; Saleh et al., 2019; Sirait et al., 2019) . it is also further emphasized in Sardiman (2008:95), that there is no learning if there is no activity because activity is a very important principle in teaching and learning interactions.

4. Conclusion

Based on the results of the research that has been presented and discussed, it can be concluded that the application of disaster mitigation learning with MINUPI Media has succeeded in improving disaster mitigation learning outcomes and student activity in social studies subjects with class X SMALB D Volcano material at SLB BC Wiyata Dharma 3 Ngaglik as seen from the conformity with the expected success indicators. The application of disaster mitigation learning with MINUPI Media has succeeded in improving disaster mitigation learning outcomes and the activeness of students with disabilities and awarding awards in learning has succeeded in encouraging students to be actively involved in learning, for this reason, it is recommended to 1) all teachers apply learning with creative media that attracts students, 2) awards to students need to be given to motivate students to be more active in participating in learning, 3) The same research can be developed by other teachers on different materials and classes.

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