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The student's preparedness for Merapi eruption: case of SMP Negeri 2 Pakem

By

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This study aims to find out (1) the level of preparedness of students of SMP Negeri 2 Pakem students to face the Merapi eruption disaster, (2) the efforts made by the school to improve their preparedness to face the Merapi eruption disaster, and (3) the school's constraints in improving their preparedness. This study used mixed methods. The research model was a sequential exploratory design. The data were collected through questionnaires, interviews, and documentation. The qualitative data trustworthiness was enhanced by source triangulation involving three sources, namely the Principal, Social Studies teacher, and disaster preparedness school manager. The quantitative data were analyzed using the descriptive statistical technique. The qualitative data were used to support the quantitative data. The results of the study are as follows. 1) The level of preparedness of students of SMP Negeri 2 Pakem is high, with a mean score of 141.93. The percentages of the student's preparedness to face the Mount Merapi eruption disaster are very high (34%) and high (66%). 2) The efforts made by the school to improve the preparedness of students of SMP Negeri 2 Pakem students include the provision of disaster socialization and simulation every year, the integration of disaster preparedness materials into the curriculum of learning, the school's provision of facilities related to the disaster preparedness school and an MoU between SMP Negeri 2 Pakem and SMP Negeri 2 Ngaglik as a buffer school during the Mount Merapi eruption disaster. 3) The school's constraints in improving preparedness are, among others, that not all materials can be integrated with the implementation of the disaster preparedness school, simulation and socialization conducted only once a year are considered not maximal enough, and there is a student shift every year.

Introduction

A natural disaster is an event that occurs in nature that can have a significant impact on the human population. Natural events can be floods, volcanic eruptions, earthquakes, tsunamis, landslides, snowstorms, heat waves, tropical storms, and so on (Bramasta & Irawan, 2020). Indonesia is an archipelagic country prone to disasters because it is located where active tectonic plates meet, often referred to as the Ring of Fire. This causes Indonesia to have 127 active volcanoes or around 13% of the active volcanoes worldwide. The large number of active mountains is inseparable from the existence of Indonesia, which is in the fault zone of the world's significant plates, namely the Indo-Australian plate, the Asian plate, and the Pacific plate (Wibowo, 2017; Bramasta & Irawan, 2020). This volcanic disaster can threaten and disrupt people's life activities and disrupt people's livelihoods caused by natural or non-natural factors, which can result in loss of life, environmental damage, loss of property, and psychological damage to people (Jannah et al., 2023; Sudrajat & Kumalawati, 2020).

All volcanoes in Indonesia are located on a tectonic path that extends from the islands of Sumatra, Java, Nusa Tenggara, Banda, Halmahera, and Sangir Talaud, occupy one-sixth of the archipelago's land area (Santosa, 2015). One of the islands that has many

active volcanoes is Java, which is located just south of the equator between 6° to 9° South Latitude and 105° to 114° East Longitude. The surface area of Java Island reaches 134,000 km². The Java Island region is very densely populated due to the fertile volcanic soil, which has always attracted the interest of many residents (Wiratmoko, 2017; Sudrajat et al., 2023).

One of the active volcanoes on the island of Java is in Central Java and Yogyakarta, namely Mount Merapi. Mount Merapi is in Central Java Province, and D.I Yogyakarta is one of the most active mountains in Indonesia. Mount Merapi is a Strato-type volcano with a height of 2980 meters above sea level. Geographically, it is located at 7'32.5' South Latitude and 110'26.5' East Longitude; administratively, it is in 4 districts, namely Sleman in Yogyakarta Province, Magelang, Boyolali, and Klaten in Central Java Province (BNBP, 2013). Merapi's small eruption cycle occurs every 2-3 years, while significant eruptions occur every 10-15 years. The eruption of Mount Merapi can endanger the safety of residents where Mount Merapi is located close to residential areas. In 2010, Merapi had a catastrophic eruption, the largest eruption in the last 70 years. The eruption experienced a relatively rapid development of emergency status. Mount Merapi is still showing activity, which can show changes in its status at any time (Septikasari & Ayriza, 2018).

Apart from human casualties, damage and losses due to the Merapi eruption could not be avoided, where as many as 2,163 housing units were damaged in Sleman Regency. Likewise, public facilities such as auxiliary health centers (*pustu*), village health centers (*poskesdes*), community health centers, and hospitals also experienced light, moderate, and severe damage. Also, many educational facilities and infrastructure were damaged due to the Mount Merapi eruption disaster (Malthuf & Reza, 2022). In Sleman Regency, it was recorded that 14 school buildings were seriously damaged, followed by one building experiencing moderate damage and six school buildings experiencing light damage. Also, six bridges connecting several villages and hamlets experienced severe damage (Dillashandy & Panjaitan, 2019).

After the Merapi emergency response period, a damage and loss assessment (DaLA) was carried out to obtain a comprehensive picture of the direct and indirect impacts of the Merapi disaster, especially on building and housing infrastructure. The DaLA method was first used by the United Nations Economic Commission for Latin America and Carrebian (UNECLAC) to assess post-disaster damage and loss in the region, which was then adopted by Bappenas through Law 24/2007 concerning disaster management which states that the assessment of loss and damage legally become part of the disaster management stages. Based on DaLA's evaluation, the total loss due to the 2010 Merapi eruption reached Rp. 3.62 trillion spread across DIY Province Rp. 2.14 trillion and Central Java Province 1.48 trillion (Muktaf, 2017).

Sleman Regency has sub-districts closest to Mount Merapi's peak, namely Pakem, Cangkringan, and Turi. These three sub-districts are areas with dense population. The high population density in these three sub-districts also influenced the high number of victims of the eruption of Mount Merapi in October 2010 because most of the victims came from these three villages. Pakem sub-district has a denser population density than the Cangkringan and Turi sub-districts, with a population of 33,261 (Sudradjat et al.,

2011; Muktaf, 2017; Sudrajat & Kumalawati, 2020). During the 2010 Merapi eruption disaster, much of the population of the three sub-districts was designated as a danger zone for the eruption of Mount Merapi, and PVMBG evacuated them to a safer place. Based on this, so that the public better understands the level of danger of each region, many efforts have been made by the BMKG and the Ministry of Energy and Mineral Resources, one of which is compiling a map of the Mount Merapi Disaster Prone Area (KRB) as an indication of the level of disaster vulnerability of an area in the event of a volcanic eruption.

Due to the routine eruption of Mount Merapi and the number of victims, damage, and losses caused, disaster mitigation has begun to be implemented by the National Disaster Management Agency (BNBP) to reduce the risk of disasters for the population by holding Disaster Risk Reduction activities in the form of providing information about disasters. It was information about what happened in the area and simulation process training to save oneself. Therefore, providing knowledge about disasters and preparedness from an early age to people who are vulnerable to disasters is very important to avoid or minimize the risk of becoming a victim. Disaster preparedness education needs to be developed starting at the basic education level to build a culture of safety and resilience, especially for children and the younger generation. As educational institutions that instill cultural values and knowledge in the younger generation, schools are expected to play an essential role in disaster risk education (Sudrajat & Kumalawati, 2020; Sudrajat et al., 2023).

One form of disaster risk reduction is establishing a Disaster Preparedness School (*Sekolah Siaga Bencana* or SSB). Sleman Regency implemented SSB after the Merapi eruption disaster in 2010. SSB can be formed by incorporating DRR material into school subjects, such as disaster material in Social Sciences lessons (Sudrajat et al., 2023; Milhani, 2018; Sudrajat & Mujadidi, 2021). SMP Negeri 2 Pakem is one of the schools that has been a Disaster Preparedness School since 2010. The school is in Sawungan, Sawangan, Hargobinangun, Pakem, and Sleman Yogyakarta, including the Merapi Disaster Prone Areas, especially in disaster-prone areas II (KRB II). The majority of students live in disaster-prone areas. One of the school's efforts to increase students' preparedness is by providing several outreach and practical activities regarding mitigation and preparedness for the Mount Merapi eruption disaster, which is held once a year.

However, preparedness efforts that are not sustainable or are only carried out for one period will result in the level of preparedness in schools continuing to decline. The preparedness parameters are vital in disaster preparedness schools because they can help identify potential dangers and reduce risk through prevention and mitigation measures (Lesmana & Purborini, 2015; Sudrajat & Kumalawati, 2020). The level of disaster preparedness among students at SMP Negeri 2 Pakem was measured using four parameters, including (1) knowledge and attitudes towards the Mount Merapi eruption disaster; (2) emergency response plans for the Mount Merapi eruption disaster; (3) early warning system for the Mount Merapi eruption disaster; and (4) the ability to mobilize resources against the disaster.

Method

The research uses a combined research method (mixed methods). A combined research method is a research method that combines or combines quantitative methods and qualitative methods to be used together in a research activity so that more comprehensive, valid, reliable, and objective data is obtained (Sugiyono, 2018). The research model uses a sequential explanatory design. The combination research method of sequential explanatory design is a sequential quantitative and qualitative research method, wherein in the first stage, the research was carried out using quantitative methods. The second stage used qualitative methods (Sugiyono, 2018). On the other hand, research uses data collection methods such as interviews and documentation. Interviews were conducted with the SSB manager, 1 social studies teacher, and the principal of SMP N 2 Pakem in the form of interviews and documentation.

This research was carried out at SMP Negeri 2 Pakem, which totaled 355 students. It used the stratified random sampling technique. Sugiyono (2018) states that proportional stratified random sampling is used when the population has members/elements that are not homogeneous and proportionally stratified. Samples were taken from classes VII, VIII, and IX; the total was 355 students. Based on the Isaac and Michael tables with an error rate of 5% to obtain a sample of 174 students. Data collection techniques use questionnaires during interviews and documentation. The data analysis used in this research is a quantitative approach that uses calculations of the mean (M), median (Me), mode (Mo), and deviation standard, as well as descriptive statistical data analysis (Afrizal, 2016).

Result and Discussion

SMP Negeri 2 Pakem is one of the schools that has been a Disaster Preparedness School since 2010. The school is in Sawungan, Sawangan, Hargobinangun, Pakem, and Sleman Yogyakarta, including the Merapi Disaster Prone Areas, especially in disaster-prone areas II (KRB II). The school has a vision supporting disaster mitigation's importance, namely "piety, independence, culture, excellence, environmental insight, and disaster mitigation." This vision will be implemented into school programs, including the School Disaster Preparedness program.

Data on the level of preparedness of SMP Negeri 2 Pakem students for the eruption of Merapi was obtained through questionnaires/questionnaires distributed to students with four parameters, namely knowledge and attitude towards disaster, emergency response plans, early warning systems, and capabilities to mobilize resources.

a. Knowledge and Attitude toward Disaster

On the parameters of knowledge and attitudes towards the Mount Merapi eruption disaster, students at SMP Negeri 2 Pakem had an average score of 37.83, which means they are in the "Ready" category. Based on data from questionnaires distributed to students, the highest score was 48, and the lowest was 26. The results of calculations using SPSS 16.00 for Windows produced a Mean (M) of 37.83, Median (Me) of 38, Mode (Mo)

of 39, and Standard Deviation of 4.063. Based on calculations using the formula k = 1 + 3.3 log 178, the number of interval classes is eight, so k = 1 + 3.3 (2.25) = 8.43. The class range (R) is obtained from the formula = (most significant score-smallest score), so range = 48 – 26 = 22. Class width (I) = range / k, so 22 / 8 = 2.75 and rounded to 3. The following is a frequency distribution table of knowledge scores and attitudes of students at SMP Negeri 2 Pakem towards the Merapi eruption disaster.

Table 1. Knowledge and attitude scores disaster

Interval	Frequency	Percentage
26-28	3	1,69%
29-31	10	5,62%
32-34	22	12,36%
35-37	42	23,60%
38-40	56	31,46%
41-43	33	18,54%
44-46	11	6,18%
47-49	1	0,56%
N	178	100%

From the frequency distribution table, most students have good knowledge about disasters. They also behave in accordance with the mitigation that has been determined. However, the data will be presented in pie chart form so that the table can be easily read.

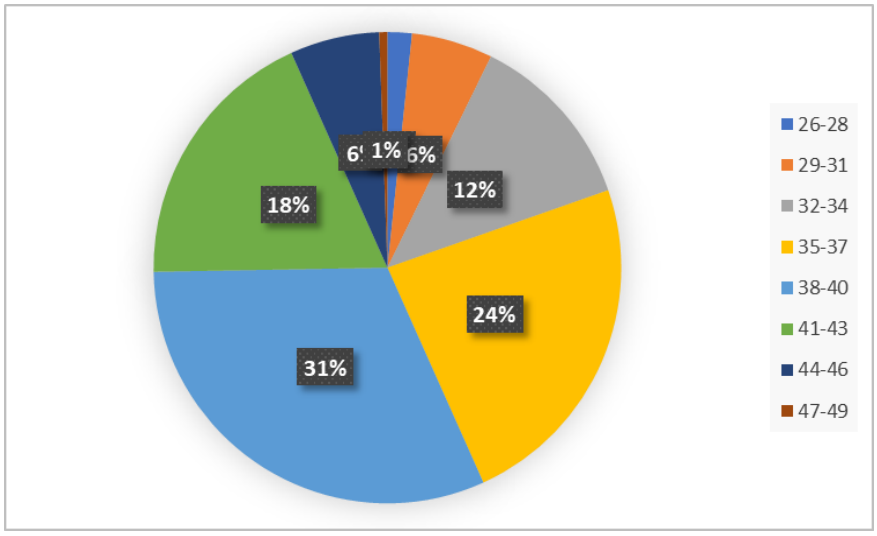


Figure 2. Pie chart readiness of students

Figure 2 shows the parameters of knowledge and attitudes of students toward the Merapi eruption disaster; the average score was 37.83. Students are in the "ready category" regarding knowledge and attitudes toward the disaster. Students' readiness is caused by educational activities that can provide knowledge and information about disasters well. Activities carried out include integration in learning and socialization by the disaster management team (interviews with the principal, 12 Juni 2019).

b. Mitigation and Response

In the second parameter of the emergency response plan for the Merapi eruption, students at SMP Negeri 2 Pakem had an average score of 36.33, which means they are in the "ready" category. Based on data from questionnaires distributed to students, the highest score was 44, and the lowest was 29. The results of calculations using SPSS 16.00 for Windows produced a Mean (M) of 36.33, a Median (Me) of 36, a Mode (Mo) of 36, and a Standard Deviation (S.D.) of 3.932. They are based on calculations using the formula k = 1 + 3.3 log 178, so that k = 1 + 3.3 (2.25) = 8.43, the number of interval classes is 8. The class range/range (R) is obtained from the formula = (most significant score-smallest score), so range = 44 – 29 = 15. Class width (I) = range/ k, so 15 / 8 = 1.875 and rounded to 2. Here is the frequency distribution table for the emergency response plan scores of SMP Negeri 2 Pakem students for the Mount Merapi eruption disaster.

Table 2. Emergency and response plan

Interval	Frequency	Percentage
29-30	17	9,55%
31-32	19	10,67%
33-34	25	14,04%
35-36	35	19,66%
37-38	25	14,04%
39-40	28	15,73%
41-42	16	8,99%
43-44	13	7,30%
N:	178	100%

The data shows that students have a good emergency response plan. Emergency response plans include, among others, plans and actions to deal with emergencies, sources of information about disasters, the addresses and telephone numbers of essential facilities to ask for help, and student plans related to the purpose of self-evacuation during the eruption of Mount Merapi.

The ability to carry out mitigation and early response to natural disasters has been taught and trained well by schools. The regional disaster management team has carried out several socializations and simulations regarding eruption disasters so that these skills are generally mastered by students and school residents (Interview with Principal, 12 Juni 2019). Apart from that, social studies teachers have also integrated these topics into learning activities. This can be seen from the lesson plan document prepared by the teacher, which shows that the learning topic accommodates contextual knowledge about disasters.

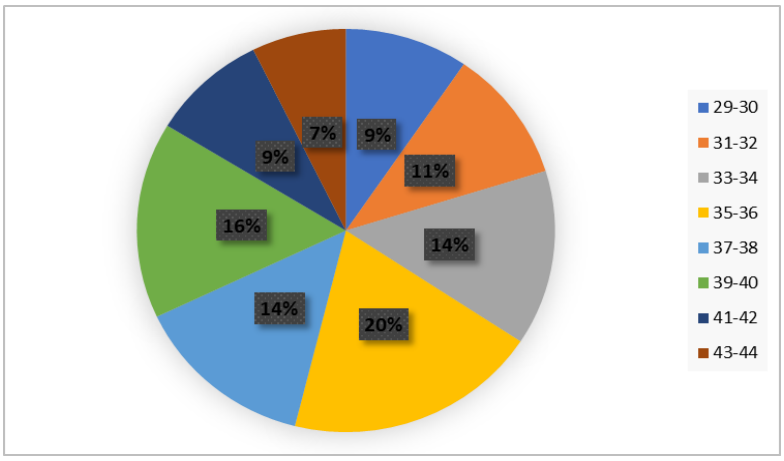


Figure 2. Pie chart of emergency and response

c. Early warning system

In the parameters of the early warning system for the eruption of Mount Merapi, students of SMP Negeri 2 Pakem have an average score of 49.95, meaning they fall into the "Ready" category. SMP Negeri 2 Pakem students understand traditional disaster warning systems like *kentongan* and modern disaster warning systems like sirens. Disaster early warning systems include disaster warning equipment, attitude when hearing disaster warnings, and disaster warning information.

Based on data from questionnaires distributed to students, the highest score was 64, and the lowest was 34. The calculation results using SPSS 16.00 for Windows produce a Mean (M) of 49.95, a Median (Me) of 50, a Mode (Mo) of 51, and a Standard Deviation (S.D.) of 6.539. Based on calculations using the formula k = 1 + 3.3 log 178, so k = 1 + 3.3 (2.25) = 8.43 obtained, the number of interval classes is eight. The range (R) is obtained from the formula = (T score). The range (R) is obtained from the formula = (most significant score-smallest score), so the range = 64 – 34 = 30. Class width (I) = range/ k, so 30 / 8 = 3.75 and rounded to 4.

Table 3. Early warning system

Interval	Frequency	Percentage
34-37	8	4,49%
38-41	10	5,62%
42-45	25	14,04%
46-49	43	24,16%
50-53	42	23,60%
54-57	26	14,61%
58-61	17	9,55%
62-65	7	3,93%
N	178	100%

From the frequency distribution table, most students have good knowledge about early warning systems. They also behave in accordance with the mitigation that has been

determined. However, the data will be presented in pie chart form so that the table can be easily read.

Based on the results of data analysis on the parameters of the early warning system of SMP Negeri 2 Pakem students against the Mount Merapi eruption disaster, the average score was 49.95. The data can be interpreted as follows: in the parameters of the early warning system for the eruption of Mount Merapi, students of SMP Negeri 2 Pakem are in the ready category.

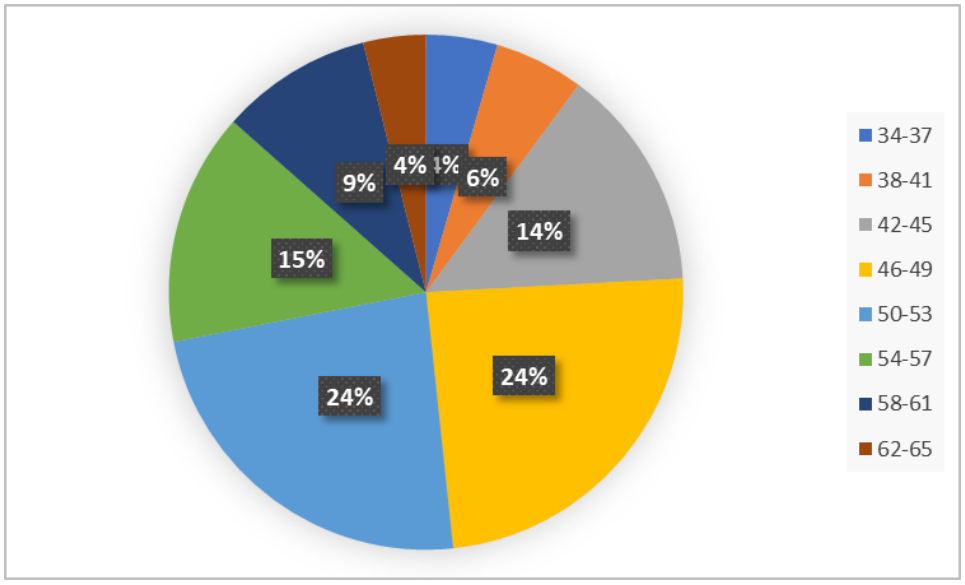


Figure 3. Pie chart of early warning system

d. Mobilize Resources

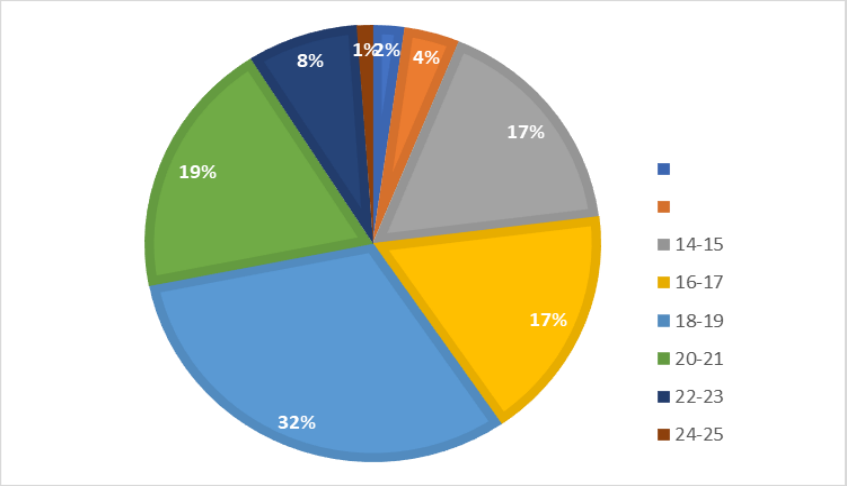
In the fourth parameter or the last parameter, namely, the ability to mobilize resources against the eruption disaster of Mount Merapi, students of SMP Negeri 2 Pakem have an average score of 17.83, which is included in the "ready" category. The ability to mobilize resources for students is in good condition. Mobilizing resources for disasters includes improving skills to deal with emergencies, attending training, and being ready to become a disaster preparedness team.

Based on data from questionnaires distributed to students, the highest score was 24, and the lowest was 10. The results of calculations using SPSS 16.00 for Windows produced a Mean (M) of 17.83, Median (Me) of 18, Mode (Mo) of 19, and the Standard Deviation (SD) of 2.844. Based on calculations using the formula k = 1 + 3.3 log 178, so that k = 1 + 3.3 (2.25) = 8.43, the number of interval classes is 8. Class range/range (R) is obtained from the formula = (largest score-smallest score), so range = 24 – 10 = 14. Class width (I) = range/ k, so 14 / 8 = 1.75 and rounded to 2. The following is a frequency distribution table for students' resource mobilization ability scores at SMP Negeri 2 Pakem against the Merapi eruption disaster.

Table 4. Ability to mobilize resources

Interval	Frequency	Percentage
10-11	4	2,25%
12-13	7	3,93%
14-15	30	16,85%
16-17	31	17,42%
18-19	56	31,46%
20-21	34	19,10%
22-23	14	7,87%
24-25	2	1,12%
N	178	100%

The ability to mobilize students' resources against the Mount Merapi eruption disaster, the average score was 17.83. This data can be interpreted as saying that in terms of the ability to mobilize resources against the Mount Merapi eruption disaster, students at SMP Negeri 2 Pakem are in the ready category. In pie chart form, the data will look like the one below.



e. Preparedness of Students toward Merapi Eruption

The level of disaster preparedness among students at SMP Negeri 2 Pakem is measured using parameters aimed at identifying, measuring, and analyzing elements related to disasters, such as the strength of earthquakes, weather patterns, or the level of vulnerability of an area in order to increase understanding and preparedness in facing potential disaster (Malthuf & Reza, 2022). The parameters used four parameters, which include knowledge and attitudes towards the Mount Merapi eruption disaster, emergency response plans for the Mount Merapi eruption disaster, an early warning system for the Mount Merapi eruption disaster, and the ability to mobilize resources against the eruption disaster of Mount Merapi. The results of data analysis on the four parameters were then included in the criteria for the preparedness level of students at SMP Negeri 2 Pakem in facing the Mount Merapi eruption disaster.

Based on the results of data analysis, as many as 65.73% of students at SMP Negeri 2 Pakem had preparedness for the Mount Merapi eruption disaster in the "Ready"

category, while students who were in the "Very Ready" category reached 33.71% and the remaining 0.56% were in the "Not Ready" category.

These data can be interpreted to mean that although the majority of SMP Negeri 2 Pakem students are in the "Ready" and "Very Ready" categories, there are still students who are in the "Less Ready" category or it could be said that there are still students who have a low level of disaster preparedness. The results of the data analysis show that students at SMP Negeri 2 Pakem have an average level of preparedness in facing the Mount Merapi eruption disaster 141.93. This data can be interpreted as saying that students are in the "Ready" category.

School Efforts to Increase the Preparedness of SMP Negeri 2 Pakem Students in Facing the Mount Merapi Eruption Disaster The influence in improving disaster preparedness for the eruption of Mount Merapi among students at SMP Negeri 2 Pakem is the school's effort to improve students' disaster preparedness. The government or disaster-related bodies regulate efforts to improve disaster preparedness through various disaster regulations and guidebooks, including Law of the Republic of Indonesia no. 24 of 2007 concerning disaster management articles 33 and 34 (Rifai, 2018). It is explained that the implementation of disaster management consists of three stages, namely, pre-disaster, emergency response, and post-disaster. The pre-disaster stage includes situations where a disaster does not occur and situations where there is the potential for a disaster to occur. The emergency response stage covers the situation when a disaster occurs, and the post-disaster stage includes efforts immediately after a disaster.

The National Disaster Management Agency explains that the disaster stages mentioned above should not be understood as a strict division of stages, where activities at a particular stage will end when the next stage begins. However, it must be consistently understood that all stages are carried out together with different activity portions (Rizkia et al., 2020). SMP Negeri 2 Pakem has made various efforts to increase student preparedness by holding annual disaster outreach and simulations. According to (Oman Abdurrahman, 2017), disaster outreach efforts will be very effective if done through schools. Furthermore, disaster preparedness material is included in the learning curriculum. Article 37 of the 2003 National Education System Law mandates that the primary and secondary education curriculum must contain social studies, which are earth sciences, history, economics, health, and so on, which are intended to develop student's knowledge, understanding, and analytical skills regarding the social conditions of society.

The curriculum is critical to achieving educational goals, including material related to the school's vision and mission. The curriculum is an overall learning plan that includes subjects, teaching methods, and educational objectives in an educational institution (Lestari & Winanto, 2022). SMP Negeri 2 Pakem has included disaster preparedness material in the curriculum because it is adapted to a school environment prone to disasters. SMP Negeri 2 Pakem also provides facilities related to the Disaster Preparedness School, such as disaster risk maps, posters related to disaster preparedness, evacuation route instructions, a health unit, medicine, disaster warning tools, and a field as a gathering point. These efforts are in line with Perka BNBP Number

04 of 2012 (Ansori & Santoso, 2020), which explains that schools safe from disasters are schools that implement standard facilities and infrastructure as well as culture that can protect school residents and the surrounding environment from the dangers of disasters (Lesmana & Purborini, 2015). There is a Memorandum of Understanding (MoU) between SMP Negeri 2 Pakem and SMP N 2 Ngaglik as a buffer school when the Mount Merapi eruption disaster occurs.

f. Obstacle for disaster education

Disaster preparedness is the steps taken to minimize risks, plan responses, and recover from the impacts of natural disasters or other emergency events. There are several obstacles in implementing disaster preparedness for students at SMP Negeri 2 Pakem, including not all materials can be integrated with the implementation of disaster preparedness schools, simulations, and socialization, which are only carried out once a year are felt to be less than optimal and students change every year. With the change of new students, schools must start from zero to re-provide materials and training for new students.

The inhibiting factors are the turnover of new students, which must be responded to with much better preparation; there are many school activities, so simulations and socialization are less than optimal, and not all material can be integrated with disaster material. So, what needs to be improved by schools include first, factors that lie in implementing personnel (principals, teachers, employees), namely those related to the level of experience, commitment, motivation, performance, self-confidence, and cooperation ability of the school community. Second, factors in implementing an organizational system are related to the authority of each role, as well as monitoring and evaluation. Disaster preparedness is very important to apply to students because they are an integral part of society. This training increases awareness of disaster risks and equips them with the skills and knowledge necessary to act quickly and effectively in emergencies, protecting themselves and others (Sasmito & Ns, 2023). In addition, involving students in disaster preparedness efforts can create a sustainable safety culture in the school environment and at home (Rahmat et al., 2020).

Overall, the efforts made by SMP Negeri 2 Pakem to increase students' preparedness have been quite good in their implementation, as proven by the results of students' preparedness in the "Ready" category when facing the Mount Merapi eruption disaster. According to the Regulation of the Head of the National Disaster Management Agency Number 04 of 2012 (Angraini et al., 2019), the formation of preparedness for students, both male and female, in schools/madrasahs is greatly influenced by the condition of educators and education personnel, infrastructure, facilities, management and financing. who is responsible, especially in the learning process experienced by students. So even though they are quite good at supporting and facilitating students, schools, and teachers need to continue to carry out evaluations so that the preparedness of all school residents, especially students, can always improve well.

Conclusion and Recommendations

Students at SMP Negeri 2 Pakem have a level of preparedness for facing the Mount Merapi eruption disaster in the "Ready" category, with an average score of 141.93. The percentage of students' preparedness in facing the Mount Merapi eruption disaster is the very ready category (33.71%), the ready category (65.73%), the less ready category (0.56%), the not ready category (0%), and the very not ready (0%). In the parameters of knowledge and attitude towards disaster risk, emergency response plans, early warning systems, and ability to mobilize resources, each parameter is included in the "Ready" category.

Efforts made by the school to increase the preparedness of students at SMP Negeri 2 Pakem are carried out through various programs, including providing socialization and disaster simulations every year; disaster preparedness material is included in the learning curriculum, the school provides facilities related to the Disaster Preparedness School, and there is a Memorandum of Understanding (MoU).

There are several obstacles in improving the preparedness of SMP Negeri 2 Pakem; namely, not all material can be integrated with the implementation of disaster preparedness schools, simulations, and socialization, which are only carried out once a year are considered less than optimal and student turnover every year, there is a change of new students, the school has to start from zero to provide materials and training to new students again.

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