

IMPACT OF LAHAR DISASTERS ON STUDENTS' SELF-AWARENESS AT SMK NEGERI 1 SALAM, MAGELANG REGENCY

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ABSTRACT

Indonesia is located in the subduction zone of three world tectonic plates, so it is prone to several natural disasters, including the eruption of the Merapi Volcano in Magelang Regency. The main threats are hot clouds, volcanic dust, and floods of *Lahar*. SMK Negeri 1 Salam, as one of the schools in prone areas, needs to be prepared to face these threats, this study aimed to analyze the effect of the experience of *Lahar* disasters on the self-awareness of students at SMK Negeri 1 Salam, Magelang Regency. A quantitative approach with a correlational design was used in this study. The research sample was students of SMK Negeri 1 Salam as many as 310 students were selected using the Slovin formula. Data was collected through questionnaires consisting of the two main variables namely *Lahar* disaster experience and self-awareness. Data analysis using Pearson product-moment correlation test and prerequisite test. Disaster experience is evaluated through three indicators: direct experience, characteristics of the disaster, and preparedness to deal with it. The results showed significant experience, especially in understanding the characteristics of disasters, but the level of awareness of learners was in the moderate category. These findings highlight the need for more attention to understanding the actions needed in the event of a disaster. Thus, increasing awareness and preparedness of learners against disasters needs to be considered in the development of disaster education programs.

Keywords: *Disaster Education; Experience; Lahar; Learners; Self-awareness.*

INTRODUCTION

Indonesia is one of the countries with a high level of natural disaster vulnerability (Wibowo et al., 2023) A natural disaster is a natural event that results in a major impact on humans (Hardiyanto & Pulungan, 2019). Several types of natural disasters occur in the form of

hydrometeorological and geological disasters. Hydrometeorological disasters are natural disasters related to climate change or weather. The threat of hydrometeorological disasters manifests in the form of water-related events, including typhoons, droughts, and floods.



Hydrometeorological disasters according to Rosyida et al., (2019) is a frequent disaster, in 2018 it reached 96.8% of the rest were geological disasters. Geological disasters are natural disasters that occur as a result of energy within the Earth. The threat of geological disasters takes the form of erupting mountains, earthquakes, tsunamis, and landslides. Although geological disasters are not frequent disasters, 93% of deaths and disappearances in 2018 were caused by geological disasters. One of the factors causing geological disasters is that Indonesia located in the subduction zone of the three world tectonic plates, namely the India-Australia Plate, the Eurasian Plate, and the Pacific Plate (Yugyasmono & Kurniawan, 2021). The border between these plates forms a series of world volcanoes commonly known as the Ring of Fire, this causes Indonesia to have a lot of active volcanoes (Siswono & Khasanah, 2019).

One of the active volcanoes in Indonesia is Merapi Volcano, where eruptions of Merapi Volcano occur periodically almost every few years. Between the years 1672 to 2010, there were more than 80 eruptions, with an interval between 1-18 years or an average of 4 years (Rahayu et al., 2014). In line with Surono et al.,

(2012) Eruptions in the twentieth century occurred every 4 to 6 years and produced viscous lava domes which collapsed to form pyroclastic flows and subsequent lahar. Merapi volcano has typical characteristic with collapsing and constructing lava dome in each period indicated by the affinity of differentiating magma basaltic into andesitic (Wulaningsih et al., 2013). Merapi Volcano is a strato-type volcano that is administratively located in 4 regencies, namely Sleman Regency, Yogyakarta City, Magelang Regency, Klaten Regency, and Boyolali Regency, Central Java Province (Yugyasmono & Kurniawan, 2021). Magelang Regency is one of the regencies in Central Java Province which is an area prone to Merapi Volcano eruption. Magelang Regency has a high level of vulnerability to disasters, This situation is influenced by the geographical location of Magelang Regency, which lies to the west of Mount Merapi. The area's topography, characterized by mountains and valleys, significantly impacts the volcanic activity of Mount Merapi. Consequently, the Magelang Regency faces numerous potential eruption-related disasters, including lahars and pyroclastic flows (Margono et al., 2019). (Wimbardana &



Sagala, 2013) stated that Magelang Regency is one of the areas prone to Lahar after the eruption of Merapi Volcano.

The threat from the eruption of Merapi Volcano in Magelang Regency is in the form of casualties and damage to settlements, and property (Asriningrum et al., 2004). The Merapi Volcano eruption releases volcanic materials such as hot clouds, dust, and other material (rocks, gravel, and sand). Hot clouds are in the form of toxic gas material with a very hot temperature of around 200-700 degrees Celsius, these hot clouds are very dangerous because they burn anything in their path (Rahayu et al., 2014). Lahar is a secondary hazard because when Merapi Volcano erupts, it releases clouds, and it also releases material that goes down the slopes (Mei dan Sadali, 2022). The volcanic material in the form of rocks, gravel, and sand will be pushed by runoff with its slope to the river so that with high intensity it can cause Lahar (Anshory et al., 2015)

There are three categories refer to areas that are prone to the eruption of Merapi Volcano namely disaster-prone area I which has a mild eruption impact, disaster-prone area II which has a moderate risk of danger due to the

eruption of Merapi Volcano, and disaster-prone area III which has the highest risk of danger (Hafida, 2022). Every category was called Kawasan Rawan Bencana (KRB). Each of these regions has different characteristics, so there needs to be an understanding to adjust to their characteristics. Based on BAPPENAS & BNPB, 2011) areas located in KRB 1 have the potential to be affected by Lahars. This area is divided into two categories namely areas prone to lava flows or floods and areas prone to ash fall. In Magelang Regency, The KRB I is the area around the Kali Putih River of Salam District, areas that are in KRB II have the potential to be exposed to hot clouds, lava flows, rock ejections, avalanches, and ash rain, these areas are generally on the slopes and foothills of Merapi Volcano such as the Srumbung District area. While the KRB III area is an area that is often hit by hot clouds, lava flows, or rock falls, the area is generally an area that is not recommended to be used as a place of residence, generally the Dukun District area, especially the Ngargomulyo and Krinjing areas which are included in the danger area zone.

The eruption of Merapi Volcano in Salam District caused material losses, injuries, and casualties. this incident was caused



by a lack of knowledge, understanding, and skills to deal with volcanic eruptions (Setiawan, 2018). There are 15 Senior High Schools located on the slopes of Merapi Volcano and are included in KRB I to III (BAPPENAS & BNPB, 2011). One of the schools located in KRB 1 in Magelang Regency is SMK Negeri 1 Salam. This school is located in the south of Kali Putih which originates at the top of Merapi Volcano. During the eruption of Merapi Volcano, the Kali Putih area is prone to Lahar. Because of this situation, SMK Negeri 1 Salam should receive special attention for disaster management activities, where students are one of the vulnerable groups in natural disasters (Hermon, Ganefri, Erianjoni, Dewata, 2019). One of the Lahar disasters in Salam District according to Winarni & Sigit (2018) was the loss of a connecting bridge between two villages due to being dragged by Lahar during the eruption of Merapi Volcano. One of the bridges damaged by Lahar is a bridge located in the south of SMK (Vocational high School) Negeri 1 Salam approximately 100 meters from the school. This bridge is a connecting bridge between Seloboro Village and Sirahan Village.

Students in disaster-prone areas such as SMK (Vocational high School) Negeri 1

Salam should be aware of the importance of preparedness behavior to minimize risks or losses in Lahar. Self-awareness of students was obtained from the experience of students when the Lahar disaster occurred. (Havwina et al, 2016) stated that the experience of disasters will be useful for learning in the future. The trauma from the experience provides a response and learning to make it as information. The information form is an action that must be taken when a disaster occurs.

Siregar & Wibowo (2019) stated that disaster-prone groups consist of infants, toddlers, children, pregnant women or breastfeeding, people with disabilities, and the elderly. Students are one of the vulnerable groups in natural disasters, this is because students have a lack of knowledge, understanding, and skills to face natural disasters. This study aimed to analyze (1) students' experience with the Lahar disaster, (2) students' self-awareness of the Lahar disaster, and (3) The Influence of students' experience on students' self-awareness of the Lahar disaster.

MATERIALS AND METHOD

This research was conducted at SMK (Vocational high School) Negeri 1 Salam.



This research used a quantitative approach. Quantitative research is a method that aims to describe a situation objectively using numbers, starting from data collection and data interpretation, to appearance and results. The research design used in this study is correlational. The correlational research generally aims to make a systematic, factual, and accurate description or picture of the facts, properties, and relationships between the phenomena investigated. Borg and Gall argue that correlational research is looking for the correlation between one variable to another variable to understand a phenomenon by determining the degree of relationship between these variables.

Population is the entire subject or object that is studied. The population in this

study is 1374 students of SMK (Vocational high School) Negeri 1 Salam from class X to class XII. Consists of 463 students in class X, 456 students in class XI, and 455 students in class XII. Hibberts et al., (2012) conveyed that a sample is a group of elements selected from a larger group in the hope that studying a smaller group will reveal important information about a larger group. The population of this study was 1374 learners who were then sampled with the Slovin formula. The research sample is shown in **Table 1**.

Table 1. Research Sample

No	Research Sample	Number of Students	Number of Samples
1.	Class X learners	463	104
2.	Class XI learners	456	103
3.	Class XII learners	455	103
Total		1374	310

Source: Primary Source, 2023

According to Firmansyah & Dede (2022) research, sampling is a technique (procedure or device) used by researchers to systematically select some items or individuals that are relatively smaller than a predetermined population to be

used as subjects or data sources for observation or experiments according to purpose. This study used a stratified random sampling because the study population was not at the same level. The data collection techniques were



observation, documentation, dan using instrument. According to Fabong (2024) The instrument for data collection of survey is the questionnaire designed to get the responses from the sample, the instrument is designed to reflect the basic purpose of the study. The questionnaire is a data collection technique by distributes a question to respondents to fill in (Sukandarrumidi, 2012). The distribution of questionnaires was distributed to students of SMK (Vocational high School) Negeri 1 Salam, where the location of the school is adjacent to areas prone to Lahar disasters. This was done to obtain information to analyze the effect of the experience of the Lahar disasters on the self-awareness of students of SMK Negeri 1 Salam. The questionnaire was distributed from class X to class XII SMK Negeri 1 Salam. A Guttman measurement scale was used in this questionnaire consisting of 2 choices on each question, the choices are Yes and No. Before testing the data, the instrument prerequisite test is carried out first by calculating its validity and reliability. The calculation of the validity of the validity of the instrument uses the Pearson product moment correlation formula and the reliability test uses Cronbach alpha. The validity and reliability test conducted

at SMA Negeri 1 Ngluwar obtained several results, including indicators of experience in obtaining 11 valid questions and 5 invalid questions. Meanwhile, the self-awareness indicator has 11 valid questions and 12 invalid questions. Then the results of the Cronbach Alpha reliability test obtained a Cronbach Alpha value of 0.715, so that $0.715 > 0.60$ which means that the questionnaire is reliable. The Data analysis techniques use correlation tests. Correlational Research is a study that involves data collection actions to determine whether there is a relationship and the level of relationship between two or more variables (Maduningtias, 2020). The correlation test used was Pearson product moment. The Pearson correlation test aimed to determine the magnitude of the significant relationship of the X variable to the Y variable. Before the correlation test, the first stage is a prerequisite test using normality and homogeneity tests.

RESULTS AND DISCUSSION

1.1. Experience of Students of SMK Negeri 1 Salam to the Lahar Disaster

The experience variable is the independent variable or X variable. This variable was measured using a



questionnaire distributed to 310 students of SMK Negeri 1 Salam. The experience variable consists of 3 indicators, namely direct disaster experience, disaster characteristics, and disaster preparedness,

the following are the results of the experience variable research:

1.1.1. Direct Disaster Experience

Direct disaster experience comprises 4 questions. The results are shown in

Figure 1.

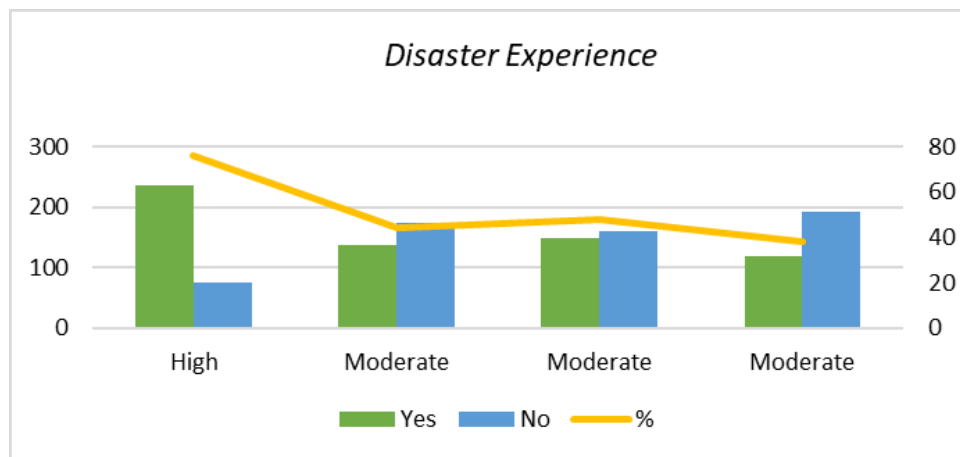


Figure 1. Diagram of real-time disaster experience indicators
Source: Primary Source, 2023

Figure 1 shows the results of the direct disaster experience indicator consisting of four questions, as many as 236 (76%) students had direct experience of Lahar disasters in 2010 in the high category, The high category in this case explains that most learners have experienced rain lava disasters directly. A total of 136 (44%) students had direct experience with Lahar disasters in 2021, so they were classified in the moderate category. A total of 149 (48%) of the students, indicating that they remembered the 2010

Lahar disaster, are categorized into the moderate category. Finally, 118 (38%) students remember the events of the Lahar disaster in 2021, ranked in the moderate category. The moderate category in this case explains that half of students remember that there was a rain lava disaster in 2021 .

1.1.2. Characteristics of disaster

The disaster characteristic indicator involved 3 questions. The results are shown in **Figure 2:**

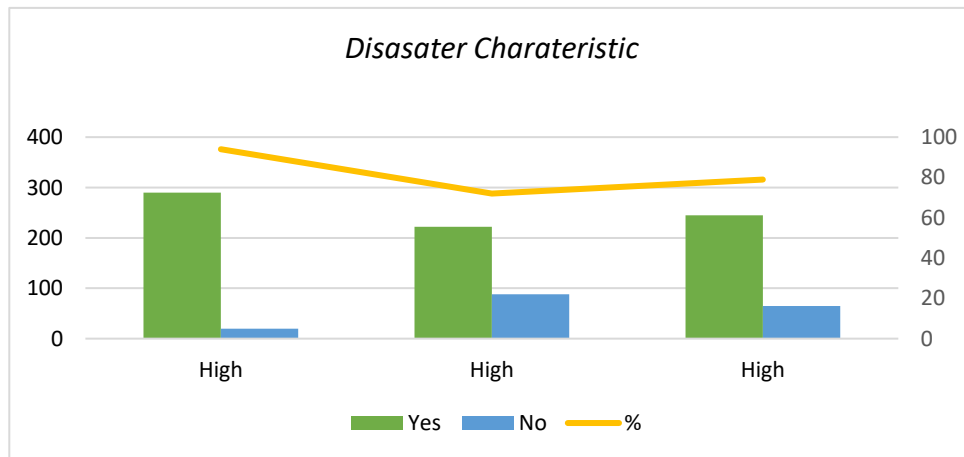


Figure 2. Diagram of indicators of disaster characteristics
 Source: Primary Source, 2023

Figure 2 shows the results of the disaster characteristic indicator which consists of three questions. As many as 290 (94%) students knew the cause of Lahar in the Kaliputih River due to the Merapi eruption, grouped in the high category as many as 222 (72%) students knew that rain Lahars in 2010 and 2021 occurred when the heavy current of the river carried sand, categorized as a high category. Finally, as many as 245 (79%)

students know the characteristics of Lahar are very heavy river currents along with rocks and sand, so they are ranked in the high category.

1.1.3. Readiness to Face the Threat of Lahar Disaster

The The indicator of readiness to face the threat of Lahar disasters comprises 4 questions that can be seen in **Figure 3**:

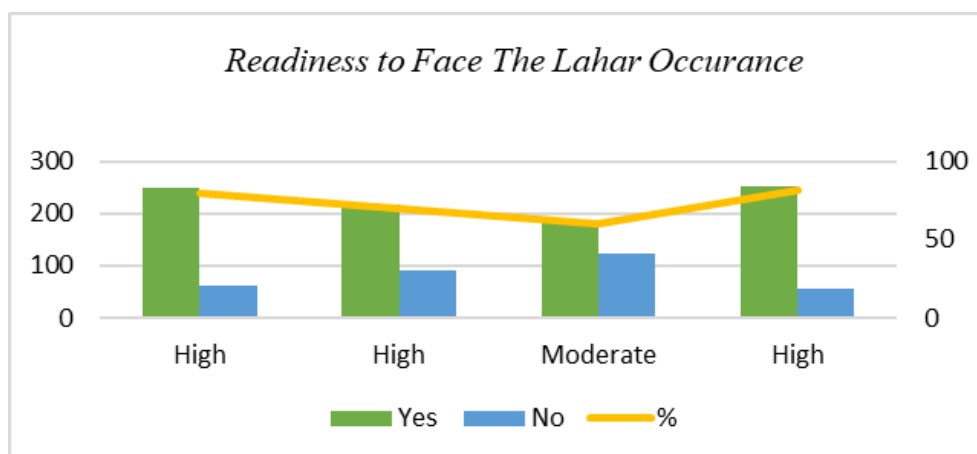


Figure 3. Disaster Preparedness Indicator Diagram
 Source: Primary Source, 2023

Figure 3 shows the results of the indicator of preparedness to face the threat of the Lahar disaster entails four questions. In the first question as many as 249 (80%) students knew the characteristics of the Lahar disaster because they experienced the event directly, so it was grouped in the high category. As many as 218 (70%) students know and understand evacuation routes because they experienced Lahar events, so they ranked in the high category. 186

(60%) students knew the evacuation route because they experienced a Lahar disaster, so it was classified in the moderate category. The evacuation route has been provided by the school (See **Figure 4**). It is where the gathering point when a disaster occurs is in a large field, as in figure 4. Finally, as many as 253 (82%) students are ready to face future Lahar disasters, so they are grouped in the high category.



Figure 4. Evacuation gathering point location
 Source: Primary Source, 2024

Table 2. Experience Variable Results

Indicator	Category		
	High	Moderate	Low
Direct Disaster Experience	25%	75%	0%
Characteristics of disasters	100%	0%	0%
Readiness to Face the Threat of Lahar Disaster	75%	25%	0%

Source: Primary Source, 2023



Table 2 shows the result of the analysis of the experiences of students of SMK Negeri 1 Salam. It can be concluded that the experience of the Lahar disasters of SMK Negeri 1 Salam students is classified in the high category, the most striking one is in the indicators of disaster characteristics. The experience of the Lahar disasters of SMK Negeri 1 Salam students is high due to most students living around the Kaliputih river area. It was due to the zoning system to select school locations for students. So that students are familiar with Lahar disasters because they have experienced them

1.2 Awareness (Self-Awareness) of Students Against Lahar Disaster

The Self-Awareness variable is the dependent variable or Y variable. This variable was measured using a questionnaire distributed to 310 students of SMK Negeri 1 Salam. The questionnaires comprise three indicators, namely Emotional Self Awareness; Accurate Self Awareness; and Confidence. The following are the results of the self-awareness variable.

1.2.1 Emotional Self Awareness

Emotional Self Awareness indicator consists of 7 questions. The results are shown in **Figure 5**.

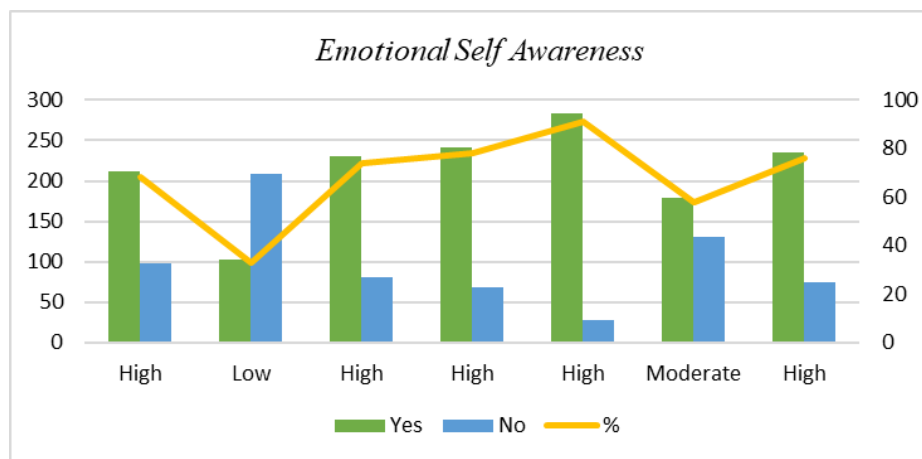


Figure 5. Diagram indicator emotional self-awareness
 Source: Primary Source, 2023

Figure 5 shows the results of the emotional self-awareness indicator consisting of seven questions. The first of which 212 (68%) students feel worried about the Lahar disaster occurring again,

grouped in a high category. The second question was 102 (33%) students did not panic when there were signs of Lahar about to occur, ranked in the low category. As many as 230 (74%) students



were able to express feelings that were felt when lava occurred, classified in the high category. In the fourth question as many as 241 (78%) students were interested in the material of the Lahar disaster, so it was included in the high category. A total of 283 (91%) students gathered at the agreed safe point. In the sixth question as many as 179 (58%) students understood the sign of Lahar, so

it grouped into the moderate category. As many as 235 (76%) students know the danger of Lahars, so they ranked in the high category.

1.2.2 Accurate Self Awareness

The Accurate Self-Awareness indicator comprises 3 questions. The results are shown in **Figure 6**:

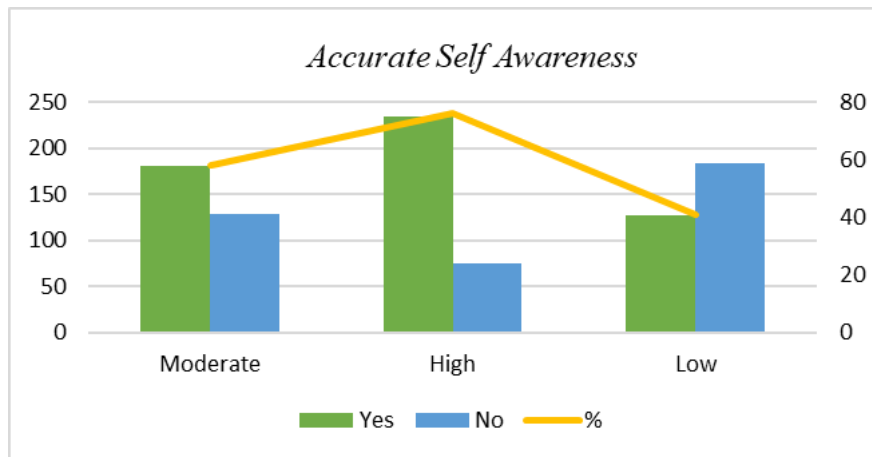


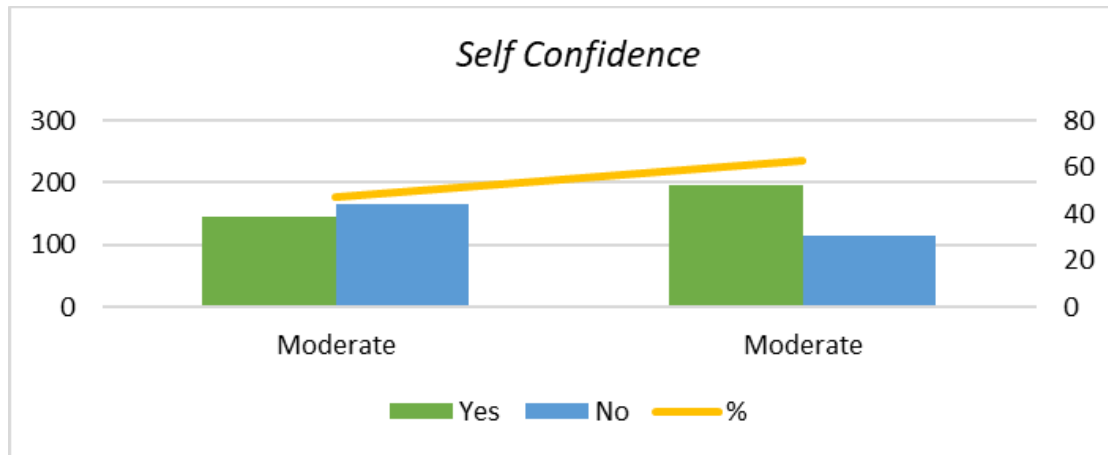
Figure 6. Diagram Indicator Accurate self-awareness
Source: Primary Source, 2023

Figure 6 shows the results of the accurate self-awareness indicator. In the first question as many as 181 (58%) students know personal protective equipment when Lahar occurs, ranked in the moderate category. The second question was 235 (76%) students willing to accept the help of others when hit by Lahar. In

the last question as many as 127 (41%) students knew the rapid flow of the river was one of the signs of rain Lahar.

1.2.3 Self Confidence

The Self-confidence indicator consists of 2 questions. The results are shown in **Figure 7**:



Picture 7. Diagram Indicator Self-Confidence
 Source: Primary Source, 2023

Figure 7 shows the results of the self-confidence indicator. As many as 145 (47%) students cannot use surrounding objects as personal protective equipment,

so they grouped into the medium category. The second question as many as 196 (63%) students can use surrounding objects for early warning systems.

Table 3. Variable Results Self-Awareness

Indicator	Category		
	High	Moderate	Low
Emotional Self Awareness	71%	14%	14%
Accurate Self Awareness	33%	67%	0%
Self Confidence	0%	100%	0%

Source: Primary Source, 2023

Table 3 shows the result of the analysis of awareness among students of SMK Negeri 1 Salam. It can be concluded that students of SMK Negeri 1 Salam are classified as a medium category in Self Awareness against Lahar disasters. Self-awareness Students ranked in the medium category, are influenced by the experiences they have gone through when there was a Lahar disaster in the past. People who have experienced natural

disasters will have a sense of preparedness because they have felt the event and have anticipation of disasters that will occur at any time so that they have preparedness to face future natural disasters (Silviani et al., 2022).

1.3 The influence of the experience of the Lahar disaster on the level of awareness (Self-Awareness) of students at SMK Negeri 1 Salam

1.3.1 Analysis Prerequisites Test



Before conducting a hypothesis test, a prerequisite test for data analysis is first

Normality Test

The normality test used in this study is the Kolmogorov-Smirnov normality test. The provisions in the normality test are seen in the significance table (sig). If the

carried out which includes a normality test and a homogeneity test.

significance value obtained is greater than 0.05 then the residual value is normally distributed and if the significance value is less than 0.05 then the residual value is not normally distributed.

Table 4. Normality Test Results

One-Sample Kolmogorov-Smirnov Test		
		Unstandardized Residual
N		310
Normal Parameters ^{a,b}	Mean	.0000000
	Std. Deviation	1.71658220
Most Extreme Differences	Absolute	.051
	Positive	.035
	Negative	-.051
Test Statistic		.051
Asymp. Sig. (2-tailed)		.052c

Source: Primary Source, 2023

Based on the normality test (**Table 4**), it is known that the significance value of the normality test is 0.052, it shows that the significance value is greater than 0.05 so it can be concluded that the data is normally distributed.

Homogeneity Test

Homogeneity test to determine 2 data variables from populations that have the

same or homogeneous variants. This test is a classic assumption test before the correlation test. The homogeneity test can be performed with the Levene variances test. Provisions in decision making, if the sig value is >0.005 then the data distribution is homogeneous and vice versa if the sig value is <0.005 then the data distribution is not homogeneous.

Table 5. Homogeneity Test Results

Test of Homogeneity of Variances					
		Levene Statistic	df1	df2	Sig.
Self-Awareness	Based on Mean	.912	8	299	.507
	Based on Median	.906	8	299	.512
	Based on the Median and with adjusted df	.906	8	272.996	.512
	Based on trimmed mean	.900	8	299	.516

Source: Primary Source, 2023



Based on the homogeneity test (**Table 5**), it is known that the significance value of the homogeneity test is 0.507, it shows that the significance value is greater than 0.05 so that it can be concluded that the population data is homogeneous.

Hypothesis Test

Hypothesis testing is carried out to determine the relationship between independent and dependent variables. Testing this hypothesis uses a significance level of 5% with the provision of calculating $> r$ -table. This hypothesis was tested using Pearson product-moment correlation analysis.

Table 6. Correlation Test Results

Correlations		Experience	Self Awareness
Experience	Pearson Correlation	1	.394**
	Sig. (2-tailed)		.000
	N	310	310
Self Awareness	Pearson Correlation	.394**	1
	Sig. (2-tailed)	.000	
	N	310	310

** . Correlation is significant at the 0.01 level (2-tailed).

Table 6. represents the results of the Pearson correlation test. The correlation between disaster experience is 0.394 and self-awareness is 0.394. The correlation test with the number of respondents 310 was higher than the r -table because the r -table with the number of samples of 300 at a significance of 5% was 0.113 and the r -table with the number of samples of 400 at a significance of 5% was 0.098. So the correlation of 0.394 is included in the positive correlation. It can be concluded that the variables X and Y are related. Although it is categorized as a positive correlation, in the low category, this phenomenon is influenced by the

awareness of rain lava disasters among students from SMK Negeri 1 Salam who fall into the medium category. It can be seen in table 2 that the total category is reaching 181% of the total 300%, almost half of all students are not aware that they are in an area that is prone to rain disasters even though they have experienced Lahar disasters.

DISCUSSION AND FINDINGS

Student Experience of Lahar Disaster

The experience variable comprises 3 indicators. The first indicator is direct disaster experience, disaster characteristics, and preparedness to face



disasters. The disaster experience of SMK Negeri 1 Salam students is ranked in the high category. One of the reasons is that students who live around Kaliputih were affected by the Lahar disaster. This can be seen in each indicator where the disaster experience indicator directly students classified in 25% high category and 75% medium category. The indicator of the causes of disaster characteristics shows an excellent value, which is a 100% high category. The last indicator, namely preparedness in facing disasters, shows a high category of 75% and a medium of 25%.

All indicators on the experience variable show a high category, in the study explained that people who experience and have a history of disasters, tend to have memories of disasters that have been experienced so that they have high preparedness. One of the areas affected by Lahar floods and the worst damage around Kaliputih is Sirahan village, Salam District, so students of SMK Negeri 1 Salam directly have a high experience of disasters because the area around their school has severe damage and until now they can see traces of this damage every day when they go to and from school, with the experience of natural disasters directly makes students

of SMK Negeri 1 Salam understand and can know the causes and characteristics of Lahar disasters (Silviani et al., 2022), however according to Hoffmann & Muttarak (2017) believes that education is an substitute to disaster experience such that highly educated individuals can understand the disaster risks and anticipate the impacts without first-hand experience. So schools need to hold pre-lahar disaster simulations so that students who do not experience it directly know what they will do if there is a lahar disaster during teaching and learning activities.

It can be seen that the highest value is found in the indicators of causes and characteristics of disasters. The existence of disaster experiences by students affects the readiness of students to face Lahar disasters, where preparedness is an important factor that becomes a focus in disaster risk reduction. The same study was conducted by Yustisia et al., (2019) with the results showing that disaster experience affects the preparedness of students with a moderate regression level.

Awareness (Self-Awareness) of Students Against Lahar Disaster

Variable Self Awareness has 3 indicators. The first is the indicator of Emotional



self-awareness, Accurate Self-awareness, and self-confidence. Self-awareness Students of SMK Negeri 1 Salam are classified in the medium category. As shown in each indicator, the indicator Emotional Self Awareness by 72% in the high category, 14% medium category, and 14% low category. While the indicator Accurate Self Awareness by 33% high category and 67% medium category. The last indicator Self Confidence by 100% medium category. In this study, the level of awareness of students of SMK Negeri 1 Salam is in the medium category, this shows that students understand and are aware of the occurrence of natural disasters, especially Lahar disasters that can occur at any time, seen in the indicator Syahril et al., (2020) in emotional self-awareness by 72% at the high category, but students still do not understand what they will do when a Lahar disaster occurs suddenly, this can be seen in the indicator Self-confidence which has 100% medium category.

In line with those, the effect of awareness on disaster preparedness is stated that if a community already has high awareness, the community will have preparedness in facing disasters. Similarly, research suggests that the higher a person's self-

awareness of disasters can influence a person's behavior to build attitudes and actions they will take when something happens. So it can be said that students already understand what a Lahar disaster is, and realize that Lahar disasters can occur around their school at any time, but they do not understand what actions they will take when the disaster occurs suddenly and students also tend to lack understanding of the tools around them that can protect themselves (Addiarto & Yunita, 2019).

The Effect of the Lahar Disaster Experience on the Level of Consciousness (Self-Awareness)

Based on the results of the analysis, this study shows a positive influence between the experience of Lahar disasters on the level of awareness (Self-awareness) of students at SMK Negeri 1 Salam. This analysis uses a product-moment correlation test of 0.394 with the number of respondents $N = 310$ is higher than the r -table because the r -table with a sample of 300 at a significant of 5% is 0.113 and a sample of 400 at a 5% signification of 0.098 so that there is a positive and significant influence. It can be concluded that the correlation of 0.394 is classified as a strong correlation. The X and Y



variables include a positive correlation so the higher the experience of disasters of students at SMK Negeri 1 Salam, the higher the Self-awareness of students against Lahar disasters. Similar to Kartika et al., (2020) found that there is a positive relationship between knowledge and disaster preparedness in the community, and there is a relationship between experience and disaster preparedness in the community. This is strengthened by Astuti et al, (2021) who revealed that disaster experience is influenced people's awareness and preparedness for disasters.

CONCLUSIONS

The conclusions that can be drawn based on the results of the above explanation are as follows:

- a. The experience of The Lahar disaster consists of three indicators, namely direct disaster experience, disaster characteristics, and preparedness to face disasters. The Lahar disaster experienced by students of SMK Negeri 1 Salam grouped into a high category. It was because students live close to the Kaliputih River and are affected by The Lahar. The indicators show that direct disaster experience ranked in a medium category by 75%, disaster characteristics grouped in a high category by 100%, and preparedness in facing disasters in a classified high category by 75%.
- b. The self-awareness variable comprises three indicators, namely emotional self-awareness, accurate self-awareness, and self-confidence. Students of SMK Negeri 1 Salam are grouped in the medium Self-awareness category. The Emotional Self Awareness indicator is 72% of the high category, 14% of the medium category, and 14% of the low category. The Accurate Self Awareness indicator is classified in a high category of 33% and a medium category of 67%. The Self Confidence indicator ranked in the medium category of 100%.
- c. The analysis showed a positive influence between the experience of The Lahar disaster and the level of self-awareness (self-awareness) of students of SMK Negeri 1 Salam. Correlation analysis yielded a product moment correlation coefficient of 0.394 higher than the critical value at a significance level of 5%. This indicates a significant positive influence. Therefore, it can be concluded that there is a strong relationship between disaster



experience and students' self-awareness of The Lahar disasters.

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