

# Improvement of Community Responsibility of SGD (Small Group Discussion) Method

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**Keywords:** Disaster Disaster Village, Small Group Discussions, Community Resilience, Disasters.

**Abstract:** The aim of the study was to find out whether disaster resilient village socialization using the SGD (Small Group Discussions) method could affect the resilience of the community in dealing with disaster risk. This study uses a quantitative method with a pre-experimental design, and with a one-group pretest-posttest approach. The group was pretested before the treatment, then after being treated, the group was posttest. The instrument used a community resilience questionnaire. The number of samples were 35 respondents, using cluster sampling techniques. The data obtained were analyzed using the t test with significance  $p < 0.05$ . The results of this study indicate that the average value of community resilience prior to socialization was 103.20, while the average value of community resilience after socialization was 163.23. The significance value for paired samples correlations is 0.09, which means there is no significant relationship between community resilience before and after socialization, while the paired sample test significance value is 0.00, which means that there is a significant effect between community resilience before and after socialization. This study can be concluded that there was an increase in the resilience of the people of Sumberrejo Poncokusumo Village after the dissemination of resilient villages using the SGD method.

## 1 INTRODUCTION

Indonesia is a country that is located at the confluence of 3 active plates of the earth (the Indo-Australian plate, Euro Asia, Pacific) which results in the emergence of earthquake and active volcanoes. From these natural phenomena Indonesia has 129 active volcanoes, thus some regions in Indonesia have the potential for disasters (Adiyoso, 2018). Malang Regency is included in the pathway of the Eurasian plate meeting with the Indo-Australian plate. The meeting of the plates is 200 km south. With the passage of the two plates meeting, then in the Regency of Malang the potential for tectonic earthquake disaster (Irijaya and Pamungkas, 2014). Disasters are events or series of events that threaten and disrupt people's lives and livelihoods caused, both by natural factors and / or non-natural factors and human factors, resulting in human casualties, environmental damage, property losses, and psychological impacts (*Law RI No. 24, 2007*).

The threat of disaster cannot be eliminated, but it can be overcome in various ways. Therefore, it is necessary to take strategic steps to reduce or minimize the impact of losses or damage that can be

caused by disasters. The government, in this case passing the National Agency for Prevention, has compiled a number of Programs to deal with various disaster threats, both preventive, mitigating and responding to disasters to rehabilitation and reconstruction after disasters.

One of the government's efforts in managing various disaster threats is to carry out community-based prevention programs, namely forming a Disaster-Resilient Village (Destana). Disaster Resilient Village in general is a program of strengthening community activities in disaster risk areas. The purpose of the Resilient Village Disaster program is to shape the community to be resilient or prepared to face disasters.

According to the Indonesian Institute of Sciences (LIPI) and the *United Nations Educational, Scientific and Cultural Organization* (UNESCO) in Husna, (2011) said that there are five factors that can affect community resilience, including: 1) knowledge and attitudes towards disaster risk, 2) policies and guidelines, 3) plans for disaster emergencies, 4) disaster warning systems, 5) ability to mobilize resources.

To support government programs to improve community resilience, knowledge about rural resilient villages needs to be provided. This can be done by several methods, one of which is SGD (Small Group Discussion). The higher the level of community knowledge the higher the resilience of the community in dealing with disasters (Frankenberg *et al.*, 2013)

Muis and Anwar, (2018) developed a model of community preparedness in dealing with disasters by using participatory activities. From the results of the research on the development of the model, it was found that there was an increase in public knowledge, but public awareness was still not reaching the expectations. Therefore, by using *Small Group Discussion* (SGD), the community can play an active role so as to increase knowledge as well as public awareness.

*Small Group Discussion* (SGD) is one of the methods developed in the last 40 years (Qamar, Ahmad and Niaz, 2015). This method consists of tutorials, seminars and problem-solving sessions by small groups. A small group is a group of people with a limited number who interact with each other. This group consists of 8-12 members.

Soifa (2018) said that the SGD method can improve student competency. In this study showed that after the SGD method there was a change in the situation in the classroom, students were more active than before. Students become actively involved in the learning process. The classroom atmosphere becomes more dynamic during the learning process. By discussing texts, doing assignments in groups, students are more motivated to improve their reading competency skills.

Research conducted by Afrilia, Eka and Sari (2018) states that the SGD method can increase the knowledge of pregnant women groups. Knowledge enhancement occurs after group members interact with each other and discuss a problem. Each group member is active in discussing one topic that has been given.

However, this method requires adequate facilitators to accommodate each group. The facilitator also needs to pay attention to group members who are less active in the discussion process. This method also requires adequate facilities and infrastructure to support the smooth learning process (Ulfah, 2017).

The purpose of this study is to determine the effect of providing methods *Small Group Discussion* (SGD) to the resilience of the people of Sumberejo Village.

## 2 METHODS

This study uses a quantitative method with a *Pre-Experimental design*, and uses approach *One Group pretest-posttest*. Groups were given a pretest about community resilience before treatment. The treatment consisted of, first, the group was given education about the concept of the Resilient Village of Disasters. Second, groups are divided into small groups according to their region. Third, each group was given problems related to the threat of disasters, vulnerability and capacity in the area of each group. After treatment, each group was given a posttest. The number of samples in the study were 35 people. The sampling technique uses purposive sampling. The instrument used in this study was to use a community resilience questionnaire with 51 question items consisting of 5 domains (knowledge of disaster risk, disaster risk assessment, planning of activities to reduce disaster risk, implementation of disaster risk reduction activities, communication systems and governance). Data analysis using t test with a significance of  $p < 0.05$ .

## 3 RESULTS AND DISCUSSION

The results of this study showed that community resilience before treatment was averaged 103.2. While after treatment the average community toughness was 163.23. The results can be seen in table 1.

Before the t test was performed, the data was tested for normality in advance using the test *saphiro wilk*, because it is an absolute requirement when using the t test (Sugiyono, 2011). From these tests it was found that the pretest data test value of 0.407. While the posttest data test value of 0.354. From these results it can be concluded that the data are normally distributed and can be continued for t test. These results can be seen in table 2.

While the results of the t test can be seen in table 3. From these test results indicate that the correlation value of 0.09 which means there is no significant relationship between SGD methods with community resilience. From the table shows that the value  $p < 0.05$  which means there is a significant influence between the SGD method on community resilience.

Table 1: Distribution of respondents based on average community resilience at pretest and posttest.

	Mean	N	Std. Deviation	Std. Error Mean
PreTest	103.20	35	45.433	7.680
PostTest	163.23	35	11,725	1,982

Table 2: Data Normality Test Results.

	Kolmogorov-Smirnov (a)			Shapiro-Wilk		
	Statistics	Df	Sig.	Statistics	Df	Sig.
PreTest	.118	35	.200	.969	35	.407
PostTest	.079	35	.200	.966	35	.354

Table 3: Paired Samples Correlations Test.

Pair	N	Correlation	Sig.
1 pretest and post-test	35	.291	.090

Table 4: Test Samples Test Paired.

	t	df	Sig. (2-tailed)
Pair 1 Pretest-posttest	-8.165	64	.000

Socialization using the method *Small Group Discussion* (SGD) can improve community resilience. In line with research conducted by Afrilia, Eka and Sari (2018) who said that counseling using the SGD method can improve one's knowledge. In the SGD method each group member plays an active role in solving a given problem, so that it will indirectly increase the knowledge of the group members. In this method of learning centered on students (Snider, 2017).

The SGD process carried out by each group was accompanied by facilitators who had been trained before by disaster experts. So if there are problems that are not yet understood, they can be discussed or asked to the facilitator. Thus the knowledge of each group member will increase.

One of the factors that influence community resilience is knowledge (Husna, 2011). The method *Small Group Discussion* (SGD) can improve one's knowledge (Afifah, Ekawati and Tarmi, 2018). In this study, each group was given a stimulus by providing socialization about the Tangguh Disaster Village, then discussing issues related to the threatening disasters in their respective regions. Knowledge improvement occurs because each group member actively participates in discussions, all group

members express their opinions, ask the facilitator and solve common problems.

Another factor of resilience is planning during emergencies (Husna, 2011). In the SGD process each group formulates a plan, starting from determining disaster risk-prone areas to planning the direction of evacuation in the event of a disaster. Each group is also instructed to make a disaster risk map in accordance with the conditions of their respective regions.

The next factor is the disaster warning system (Husna, 2011). Related to this factor, each group plans a communication system in the event of a disaster in accordance with the conditions in their respective regions. Like using a block or speaker at a place of worship.

After the SGD process, each group presented the results of their discussion at a large forum. Each group will get input from other groups and also from the expert team. So that each group will influence and interact with each other (Moussa, Campero and Almaatouq, 2018).

*Small Group Discussion* (SGD) can also help in solving a problem (Fransiska, Sudira and Wardani, 2016). The problems given to each group are related to the threat of disasters that occur around their area. Groups are given stimulus problems about what they do if the threat of disaster occurs to them. The group will discuss their plans, thus each group plays an active role to express their ideas in solving the problem.

## 4 CONCLUSIONS

From the results and discussion above, this study can be concluded that there is no significant relationship between Disaster Resuscitation socialization using method *Small Group Discussion* (SGD) to increase community resilience in Sumberejo Poncokusumo Village. But there is a significant influence between the socialization of Destana by using the SGD method to increase community resilience.

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