# Strengthening the capacity of millennial generation of Merapi slopes to disasters through the application of smart schools in the Logede region

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## Abstract

Millennial generation of Merapi Slopes view that the eruption of Mount Merapi is a natural cycle, so they are required to be able to adapt to the natural environment. It is a necessity to increase the capacity of millennial generation in the context of disaster management. SMPN 2 Karangnongko applies the Smart School extracurricular in order to disseminate the values of peace and disaster management. The purpose of this study is to describe the perception of millennial generation towards disaster and the effect of the application of Smart Schools on capacity building. The study uses qualitative methods with data collection methods of observation, interviews and documentation. The results showed that the perception of millennial generation in Logede region towards disasters as tragedies, ordeal, tests, and unpleasant events that brought misery. This view is influenced by religious values and local wisdom that develops in the community.

Keywords: Millennial Generation, Disaster Preparedness, Smart Schools

# INTRODUCTION

Indonesia is one of the countries with the most active volcanoes in the world. These volcanoes are part of a series of active volcanoes known as the ring of fire. In recorded history of volcanoes in the world, two major eruptions occurred in Indonesia, namely the eruption of Mount Tambora and Mount Krakatau. The eruption of Mount Tambora in 1815 resulted in the spread of volcanic ash throughout the earth. Another impact, in 1816 was a decrease in the average temperature of the earth by 1 degree. Since then, in 1816 it was known as a year without summer in the northern hemisphere. Mount Krakatau which erupted in August 1883, had a worldwide impact. The dust cloud crossed the world several times and the incident triggered a tsunami that was able to propel warships hundreds of meters inland.

Meanwhile, one of the most volcanic eruptions in Indonesia is Mount Merapi. This mountain has been active since 1900 until now with short periods of dormant or short break (on average no more than 3.5 years). As a comparison, Mount Kelud in East Java has an eruption cycle of 15 years (Voight et al., 2000). Mount Merapi is known to have an eruption cycle for 3.5 years, but the cycle is only a statistical count. Thus, the eruptions of Mount Merapi are actually more than 100 times within 1 to 18 years. It means that the eruption of Mount Merapi can occur in one or two years. In short, the eruption of Mount Merapi is a permanent disaster threat (Subandriyo, 2012).

The danger of volcanic eruptions consists of primary and secondary hazards. Primary hazard is the danger that directly affects the population when an eruption takes place such as hot clouds, hot air as the side effect of hot clouds, and the throw of materials in the size of blocks (bombs) to gravel.

While secondary hazard occurs indirectly and generally take place after an eruption occurrence, such as cold lava which can cause damage to land and settlements. Land on Mount Merapi faces both primary and secondary hazards from Mount Merapi in the form of land damage due to eruption and erosion and cold lava flood. The damage also occurs in the socioeconomic life of the community in the affected area. Basically, a volcanic eruption is a disaster that has complex consequences. The land surface in the volcanic eruption area is generally covered by lava, pyroclastic flow and tepra (volcanic ash) and lava. Lava deposits are usually very diverse in thickness on the land surface, and often there are spots that are not covered by lava, leaving insitu vegetation. A warmer climate and more regular rain distribution will help the process of soil formation from eruption material and help the recovery of land affected by eruption. In ideal conditions, tepra can be recovered quickly. The availability of moisture in cold lava material will help the formation of soil from eruption material.

In spite of the potentials of disasters, there are increasing number of people who live and work daily in areas that are at risk from the danger of hot clouds. The residents include the owns who inhabit in Disaster-Prone Areas III (KRB III), namely areas that have historically been affected by pyroclastic flows and in Disaster-Prone Areas II (KRB II) as areas that can still be achieved by falling loose materials such as bombs and lapilli. In 1976, the population in KRB III was 40,800, while in KRB II it was 72,600. In 1995 it increased to 79,100 in KRB III and 114,800 in KRB II. Until the year of 2010 before the occurrence of major eruption, the population was approximately 100,000 people in KRB III and 140 thousand people in KRB II (BPS, 2010).

Klaten is a district located in Central Java region as one of the districts close to one of the active volcanoes, Mount Merapi, and as an area on the ring of fire. Merapi is a disaster-prone area, but the people remain live there. The people's behaviour is influenced by their perception of the threat of disaster itself. Understanding people's perceptions of risks to disasters is important because the meaning of a disaster will also influence the response to disaster mitigation (Agustin, 2014).

Two potential disasters known by the wider and international community are the eruption of Mount Merapi and tectonic earthquakes. The area of Klaten district which is vulnerable to earthquake disasters and the eruption of Mount Merapi is divided into three potential areas. The potential areas I (building damage> 80%) are the sub-districts of Prambanan, Wedi, Gantiwarno, Bayat, and Jogonalan. Whereas, the potential areas II (building damage> 60%) are the sub-districts of Cawas, Ceper, Pedan and Trucuk. Meanwhile, the potential areas III (building damage 20% -60%) are the sub-districts of South Klaten, Central Klaten, North Klaten, Karangnongko, Kemalang, Tulung, Klaten (Disaster Learning Guide in Klaten Regency, 2014). Those facts are the reasons putting Klaten district to be a prone area of natural disasters such as earthquakes and Merapi volcanic eruptions.

The Hyogo of Action Framework 2005-2015 states that one of the priorities in the effort of Disaster Risk Reduction is the importance of using knowledge, innovation, and education to build a culture of safety and resilience at all levels (in the long term, it is expected to be able to build disaster preparedness for an effective response at all levels) (Astuti and Sudaryono, 2010). The effort of disaster risk reduction consists of 3 stages, namely prevention, mitigation, and simultaneous preparedness.

The effort to reduce disaster risk carried out before a disaster is called risk management, but the one to that after a disaster is called impact management (LIPI Team, 2006). Based on the Law of the Republic of Indonesia Number 24 Year 2007, it is clear that disaster mitigation is an effort to reduce disaster risk through physical development, awareness and improvement of community capacity. The results of the disaster mitigation efforts are used for the disaster preparedness process.

Merapi Volcano is one of the active volcanoes. During the last decade Merapi Volcano erupted in 2006 and in 2010. The community must have the ability to deal with eruption disasters. These efforts are then realized in education.

Based on the Regulation of the Head of the National Disaster Management Agency (BNPB) No. 4 of 2008, disaster mitigations consist of structural and non-structural mitigations. Structural mitigation is carried out through physical development or community infrastructure development in the way of disaster risk reduction. Meanwhile, non-structural mitigation is carried out through awareness and education efforts to reduce disaster risks. National commitment regarding disaster management is observed by the enactment of the Act Number 24 of 2007 concerning Disaster Management. The law in article 26 explains that every person has the right to get education, training, counselling, and skills in carrying out disaster management, in both situations of the absence disaster or potential disaster occurrences. Disaster mitigation applies through physical or policy development as well as bringing awareness or education efforts.

Santrock (2012) states that perception is the meaning of what is received by the senses. Perception enables individuals to establish

communication with their environment, so they can interact and adapt in their environment. Perception of a person or group of people will affect their behaviour. Perception is built on the virtues of one's values and life principles. Perception is formed through a series of learning processes carried out by a person during his life. In line with that, religious understanding is one of the social intuitions that influence the formation process of a perspective (Lakonawa, 2013).

Having observed the disaster occurrences, Indonesia must increase the efforts of disaster risk reduction. In this case, it must start from the most basic by optimizing the local wisdom that is imprinted in almost every region in Indonesia. Indigenous peoples in the archipelago of Indonesia have been possessing local knowledge or wisdom and good practices that are relevant and beneficial for dealing with disasters such as volcanic eruptions, earthquakes, floods, landslides, and other natural disasters. Although technological advancement have developed in encountering disasters, but these innovations still need to be synchronised with local wisdom, such as reading signs of nature.

In the perspective of local wisdom, indigenous people observe animals as natural phenomena which then become a clue or sign of an incoming disaster. Once upon a time, the people in villages were much related to nature in which mutual symbiotic interactions occurred. By protecting the environment, they can adapt and live in harmony with nature. When a disaster will occur, nature gives codes. The codes are interpreted by the community as a sign of an impending disaster.

Natural disasters can also be seen from the unusual movements of animals. For example there is wisdom regarding catfish which has a high sensitivity to soil movement, including earthquakes. When a tremor in the ground occurs and forms an earthquake, the catfish will splash actively and shake the water before the earthquake comes. Not only animals, nature can also give code to the community in the event of a disaster, such as a roar in the sea, consecutively it shouts with another one in the mountains. With these signs or signals, local people can interpret that there will be a big flood or a volcano eruption.

In general, the Merapi slope community considers that disaster is the punishment of sin, so someone must accept the disaster as a result of his actions. Therefore the community does not try to prevent or overcome the disaster (Bakornas PB, 2007). Disasters are defined as unlikeable things for humans, similar to misfortune and sorrow. Whereas in Indonesian the term disaster is defined as a cause of distress, loss or suffer, catastrophe or accident (PP. Muhammadiyah, 2015).

Whereas in Islam any type of disaster is interpreted as a form of Allah's affection for humans. Various events to humans are essentially tests and trials of the faith and behavior that have been carried out by humans. The system of faith taught in Islam is based on the belief that Allah is the Most Merciful (love and affection). (PP. Muhammadiyah, 2015). Disasters are often perceived based on human or community perceptions, and on their feeling of emotional experiences upon the threatening events to their survival. Disaster is one of the definitions compiled in a socio-cultural context of community life that has experienced a disaster (Pramono, 2016).

In this regard, local wisdom can play a role in the process of disaster mitigation because it can be used as an instrument of the community, as a sign of incoming disaster (Raharja, Wibowo, Ningsih, & Machdum, 2016). Local

knowledge is often known by the term indigenous (Sunaryo & Joshi, 2003). Indigenous psychology is used to study behavior in the context of local culture (Kim & Berry in Oetami & Yuniarti, 2011). The community behaviour in dealing with disasters cannot be separated from people's perceptions of disasters. Bielenia-Grajewska (in Fahmi, 2016) revealed that risk perception can be characterized by individual or community assessments in describing and estimating possible damages and hazards.

To structure young generation awareness of disasters as early as possible, SMPN 2 Karangnongko Klaten Regency implements the Disaster Preparedness School Program from the government, which is integrated with the Smart Schools Program from Muhammadiyah. Realizing the surrounding conditions that are prone to Merapi eruption, SMPN 2 Karangnongko continues to run disaster risk reduction programs which are applied in the form of extracurricular activities. Instead of disaster management education, the smart schools also instill 12 peace values derived from Qur'an. Through education it is hoped that disaster affected communities can learn to deal with disasters in a more wise and prudent way.

#### **METHODS**

This study aims to describe people's perceptions of disaster, so the researcher uses a qualitative phenomenological approach. The selection of qualitative method is to explore in depth the data obtained, so this research is expected to produce a comprehensive and holistic study. Kresna explained that qualitative research is a type of research that specifically uses techniques to obtain answers or in-depth information about a person's opinions, perceptions and feelings (Lapau, 2012). Qualitative research aims to explain and analyze phenomena,

events, social activities, attitudes and beliefs, perception of a person or group of people towards something. The used description is to find the principles and explanations that lead to the conclusion (Hamdi & Bahruddin, 2014). In this research, data collection methods are observation, interviews and documentation. This study uses unstructured interview that the questions given to respondents are exploratory. Therefore, questions can be changed, modified, added etc. It mainly depends on the response and readiness of the respondents (flexibility) (Swarjana, 2016).

#### **DISCUSSION**

Disasters are defined as fate which is similar in meaning to tragedy. As the perspective of the people, destiny is part of the will of God, and the misfortune in Qur'an means something that strikes us. As Allah says in Qur'an: No disaster strikes upon the earth or among yourselves except that it is in a register before We bring it into being – indeed that, for Allah, is easy – (QS.57 / Al-Hadid: 22)

That verse describes disaster as destiny that is in line with the meaning of tragedy. It is something that happened on earth and has been written in the book of creation (*Lauhul Mahfuzh*). To society, disasters are also interpreted as trials from Allah the Almighty to His people to strengthen their faith. In Qur'an, it is said that trial is *bala*'. It is a test or trial in the form of fortune (*alhasanat*) or misfortune (*alsayyai'at*) that comes from the occurence of the universe or from the human being itself. Allah Almighty. say: And We divided them throughout the earth into nations. Of them some were righteous, and of them some

were otherwise. And We tested them with good (times) and bad that perhaps they would return (to obedience) (Q.S7 / al-A'raf: 168).

While interpreting disasters as a reminder is in line with the meaning of punishment. It is explained in the Qur'an: *Indeed*, We will remove the torment for a little. Indeed, you (disbelievers) will return (to disbelief). The Day We will strike with the greatest assault, indeed, We will take retribution (QS.44 / Dukhan: 15-16).

Events included into the category of torment can be extreme natural events such as tsunamis, landslides, volcanic eruptions, earthquakes, floods or other major social events such as wars and other social threats that serve as a reminder to return to God's law. According to the above verses, the torment is also a warning to humanity that people do not disobey Allah's commands and prohibitions.

Instead of viewing disasters as warnings, trials and destinies, society believes that the catastrophe is due to human actions, natural factors and the will of God. In Qur'an, the understanding of the community is called Nazilah. It is an expression that describes misery, so it can be said that something "strike down" is a disaster for mankind. *Just as We had revealed (scriptures) to the separators*, Who have made the Qur'an into portions. (QS 15 / al-Hirj): 90-91).

Referring to the verse, it can be concluded that the disaster basically is a result of human actions themselves, either due to natural damage by humans or negligence in responding and anticipating disasters. On the other hand, it cannot be denied that all occurrences have become the provisions and laws of God written in *Lauh Mahfudz*.

Public opinion viewing disasters as the impacts of human actions and God's will is also in line with the explanation of the Muhammadiyah Central Leader (2015). He explains that in general disasters are caused by natural and /

or man-made disasters. Disaster as stated in the text of Qur'an and hadith can be classified as natural and non-natural disasters. Natural disasters include earthquakes, volcanic eruptions, tsunamis, landslides, floods and droughts. While non-natural disasters involve technology failures, epidemics or plague, social conflicts and terror.

Other opinions are expressed by the Christian and Hindu communities stating that disaster is a trial and destiny. The explanation is confirmed by Humaedi (2015) that natural disasters can also be interpreted as a natural process that moves to achieve maturity or vulnerability. It means that natural disasters are part of the natural laws given by the Creator to the universe. Those opinions of the non-Muslim community are not much different from the opinion of the Islamic community in defining disaster.

Instead of understanding the meaning of disasters, Merapi slope community especially in Logede area also sees a potential risk from Merapi eruption disaster. According to the community, the form of threat or risk from Merapi eruption is a dangerous situation that can result in illness or death, the occurrence of ash and environmental damage. In addition, there are threats of sulphur, blockage of community activities that result in economic decline, disruption of the learning process, and fleeing to safety. The community also perceive that the threat of living on the slopes of Merapi is environmental damage, health problems, evacuation and loss of their belongings, and a traumatic impact on the community due to Merapi eruption.

The data shows the public perception of the risk of Merapi eruption. Assael explained that the perception of disaster risk can be interpreted as a person's projection of the risk that will be felt due to a disaster (Dursun, et al.,

2011). Perceptions of these risks can affect the decision making process of individuals or groups in dealing with disasters (Lestari & Iramani, 2013).

As explained by Lestari & Iramani (2013) above, the ability of risk analysis influences actions in dealing with disasters. The obtained data shows that the community will immediately evacuate in accordance with the appeal of government officials if the understanding occurs. However, there were some informants who chose to stay at home because they felt safe from the hot clouds of Merapi eruption and had surrendered to God. Some informants stayed at home because they felt their residence was far from the paramount of Mount Merapi.

Even though the community lives in the same disaster and threat-prone area, the community has different attitudes and actions in responding to a disaster occurence. This is in accordance with the explanation Nugroho (2008) that John Grinder and Ricard Bandler, the founder of NLP (Neuro Linguistic Programming), explain different responses of individuals to a reality regarding the way how the reality is mapped. What is captured in the real world is not necessarily similar to what is impressed by others. The mapping of the responses depends on the benchmark of thought or system that is owned by each individual. Therefore every individual has different mapping or perceptions of a stimulus. The community action is also indispensible from the local knowledge and culture that develops in the community. The diversity of community actions is included in the context of local cultural behaviour (Kim & Berry in Oetami & Yuniarti, 2011).

People have different perceptions of disaster. Community perception can build communication with the environment, so they can interact and adapt in their environment. Perception construction of the people in Logede

region cannot be separated from knowledge, experience and views or religious values. The community views disasters as calamities, trials, tests and destiny from God, and it shows the existence of a strong influence of the views or values of Islam on the Muslim community. The existence of this perspective shows that Merapi slopes, especially Logede area, has a strong religious influence in understanding disasters. The risk analysis process usually also clashes with religious values which are understood not in the context by the community. To name of few, choosing to stay during Merapi eruption by submitted to God is an incorrect understanding. This shows that mapping and analysis of disaster risk can also be influenced by understanding religious views.

Local knowledge and wisdom in Indonesia are widely owned by the community starting from the experience of interacting with their natural ecosystem. As an example, people who live on the slopes of Mount Merapi, in several districts in Central Java, have the ability to predict the possibility of an eruption of Mount Merapi. Local wisdom can be interpreted as in the definition of local wisdom in the LHK ministerial regulation, Number P.34 / MENLHK / SETJEN / KUM.1 / 5/2017. It defines as the noble values that apply in the local community life to protect and sustainably manage the environment and natural resources. Literally, local wisdom consists of two words, namely wisdom and local. Based on the Indonesian English Dictionary written by Jhon M Echols and Hassan Syadily, local means neighbourhood, and wisdom is equal in meaning to astuteness. Local wisdom can be understood as local ideas that are wise, full of wisdom with good values and also peaceful followed by the community. Local wisdom in recent years has been discussed intensively by associating with the community in the local area.

Another understanding of local wisdom is also used by Zulkarnain and Febriamansyah (2008) in the form of certain principles and ways that are adopted, understood, and applied by local people in interacting and interrelating with their environment and transformed in the form of values system and customary norms. Local wisdom usually comes from the experience of a community and the accumulation of local knowledge, while local wisdom is in the society, community and individuals. Thus local wisdom is a traditional view and knowledge as a reference in behaviour, and it has been practiced from generation to generation to meet the needs and challenges in the life of a community. While local wisdom itself functions and give meaning in society in the preservation of natural and human resources, the conservation of customs and culture, and providing benefits for life.

The results of other studies showed that the Muslim community in Logede area did not have special belief in Mount Merapi. However, according to informants there is a myth that develops that they are safe living in Logede area because of the existence of Mount Ijo or often called Mbah Bibi. Mount Ijo is believed as the brother of Mount Merapi's grandmother. If an eruption occurs, the hot clouds from Mount Merapi will not pass through Mount Ijo. So that, Logede area will not be exposed to the Merapi eruption heat clouds. The community belief in Mount Ijo is one of local knowledge or often known as Indigenous knowledge (Sunaryo & Joshi, 2003). In fact, people claim they do not necessarily believe in this myth. Some people think that if there are people who believe in myths, they must be reminded to return to the true belief that everything is the will of God and no force can reject it. The reminder must be conveyed properly, communicatively and full of respects in other belief.

Instead of current myths, there are also some activities that people do such as feast or *kenduri*. Nevertheless, the activity is not a form of sacrifice to Merapi, it is a community culture that commemorates the birth of children, the birth of cattle or the request of God for salvation. Only a small number of people claimed that in their residence there was an activity seeking safety for Merapi. The event was held in November by serving rice, but the name of the activity was unknown. There are also prayer activities that are held regularly in the month of *Ruwah* (the month of Java) or the month of *Sha'ban* to seek safety from God and to avoid disaster. Although such activities exist, the community considers that superstition and polytheism activities are prohibited and do not conform to the teachings of Islam. The seeking safety and protection is only to God in prayer.

The data above show the existence of local wisdom in Logede area. Local wisdom can also play a role in the process of disaster mitigation because the wisdom can be used as an instrument of the community in dealing with problems encountered in their lives (Raharja, Wibowo, Ningsih, & Machdum, 2016). Local wisdom and religious values also influence the community to interpret the events around them such as disaster. Local wisdom is a local idea that is wise, full of wisdom, good value embedded and followed by members of the community (Sartini in Humaedi, 2015).

The people of the Merapi slopes especially Logede area in facing disaster do not deviate from the values or teachings of Islam. The joint prayer activities held by the community show that the people are aware of the slave and are obliged to seek salvation from God in order to cope with the disaster with patience in order to change the situation. The level of community interpretation in all disaster occurrences will be the value for the community

to feel the greater favor and love of God. Understanding God's love and justice in relation to disasters is a very important factor in responding to disaster occurences.

The presence of various socio-cultural and religious phenomena along with the occurrence of disasters has positioned disasters as sub-cultures. Therefore, the understanding of disasters cannot be separated from cultural and structural issues that are bound to time and space. Local wisdom in Logede area community who believes in the salvation power of Mount Ijo also influences the community in interpreting disaster risk and its mitigation procedures. The community of Logede region shows the existence of positive relations to the community in dealing with disasters. Communities know each other and respect the activities and cultures of others in managing disasters, so it results positive relations between communities. Local wisdom often attempts to conceptualize the relationship between religions into it.

Based on the data, most people in Logede area have not received disaster preparedness training, but several informants explained that they had been involved as volunteers during Merapi eruptions. Thus, they had experience in dealing with disasters. In order to increase the capacity and awareness of the community, it is necessary to provide disaster preparedness education. Through smart schools teaching twelve values of peace, it is expected to foster community harmony in facing disasters.

There are 18 national character values that are targeted as well as indicators of the success of character education for the nation including: 1) Religious, 2) Honest, 3) Tolerance, 4) Discipline, 5) Hard work, 6) Creative, 7) Independent, 8) Democratic, 9) Curiosity, 10) Nationalism, 11) Love for the motherland, 12) Respect for achievement, 13) Friendly / Communicative, 14)

Peace, 15) reading eagerness, 16) Environmental care, 17) Social care and 18) Responsibility (Zaman, 2019).

The importance of character education for the Indonesian people is as a basic capital to carry out development in other fields. In fact, the main capital of development is education because education is a means to educate the children of the nation who will become future executors of development. Development will be easier to execute by the children with 18 national characteristics than by those without the characteristics.

Smart schools are known by the community as an extracurricular that contains mix materials from smart schools and disaster prepared schools teaching disaster mitigation and instillation of characters or values of peace to students. The smart school teaches disaster preparedness and character education to students through 12 peace values, so respectively students can live peacefully side by side in diversity and harmony with disasters. The values of peace include mutual cooperation, mutual respect and confidence. In addition, students are also taught to manage time such as allocating time for on time prayer.

Values that have been applied by students in daily life are time management, respect teachers, friends and differences. Smart schools also have a positive impact on students by affecting student perspective at disasters. By learning together to deal with disasters, students can eliminate panic or fear of Merapi eruption disaster and grow mutual respect, respect for differences and promote high solidarity with others.

According to the opinion of stakeholders, learning 12 values of peace can influence students in facing disasters because it fosters the characters of mutual love, mutual respect and respect for differences, the growing

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willingness to mutual cooperation and selflessness. When disaster strikes, students can save themselves without ignoring others and understanding disaster is a will and test from God. Thus, they are able to live side by side with disaster.

Smart schools provide alternative preventive efforts to disaster management by educating and instillation of humanize characters. Because disaster management is known as the principle of humanity, human suffering must be dealt with wherever it occurs. The principle of impartiality must be applied in which humanitarian actions must be carried out only based on needs and does not differentiate citizenship, race, gender, religious beliefs, and social class. With the education of smart schools by instillation peace values, it can influence the formation of positive perceptions on students and the community in dealing with disasters.

# **CONCLUSION**

The results of the research show that the community describe disasters as a tragedy, trials, tests and destiny. Disasters are also interpreted as unpleasant events and bring misery to humans. Therefore the Muslim community in Logede area held regular join prayers in the month of Ruwah (Javanese month) to ask for protection to God from the disaster of Merapi eruption.

However, the people of Logede region have different ways in dealing with disasters. First, people obey the government's instructions to flee for safety in the event of a disaster. The community follow the government's instructions because they are aware of the threat or risk of the Mount Merapi eruption disaster. Therefore, the community must evacuate when the Mount Merapi

eruption disaster occurs. Secondly, some people are heedless the government's instructions to evacuate in the event of a disaster because the community feel safe with the existence of Mount Ijo or Mbah Bibi which was believed by the community as a "shield" of Logede area from the eruption of Mount Merapi. Eventually, it can be concluded that the perspective of the people of Logede area towards the eruption of Mount Merapi is influenced by the religious values and local wisdom that develops in the community.

Further, the results of the study indicate that Smart Schools provide alternative preventive efforts for disaster management by educating the instillation of humanize characters. The application of the Smart School is able to provide understanding to students to respect each other, love each other and respect differences to create harmony in life and in disaster management.

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