Disaster mitigation learning integration model in social studies in middle school
*(Model integrasi pembelajaran mitigasi bencana dalam pembelajaran IPS di Sekolah Menengah Pertama)*

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**ABSTRACT**

Disaster management strategies will work effectively if residents have the same understanding in disaster management. The Sidoarjo Regency area is an area that has the potential for natural disasters such as floods, earthquakes and tornadoes. The purpose of this study is to increase students' knowledge, increase student awareness, develop disaster response skills. This type of research is case study research. In this study the researchers only attempted to collect simple information about disaster management in disaster preparedness schools through surveys, interviews and documentation. The integration of disaster mitigation in social sciences in junior high schools is very important to provide students with an understanding of the importance of reducing risks and losses due to disasters. The results of the study show that in general students have sufficient understanding of disasters, especially natural disasters. Students are noted to have a positive appreciation of the school. They also know that knowledge in understanding disaster is quite adequate as evidenced by the results of students' understanding related to disasters, including floods 80%, and tornadoes 75%, while other types of disasters are poorly understood (earthquakes 60%, and fires 50%). However, the existence of disaster mitigation education activities in schools is able to increase knowledge, disaster management skills and maximize self-potential, so that it has an impact on positive attitude changes in the form of increasing student awareness about disasters with an average score of 85%.

**Keywords:** Disaster mitigation learning, integration model, social sciences
ABSTRAK

Strategi penanggulangan bencana akan berjalan efektif jika warga memiliki pemahaman yang sama dalam penanggulangan bencana. Wilayah Kabupaten Sidoarjo merupakan wilayah yang memiliki potensi bencana alam seperti banjir, gempa bumi, dan angin puting beliung. Tujuan dari penelitian ini adalah untuk meningkatkan pengetahuan siswa, meningkatkan kesadaran siswa, mengembangkan keterampilan tanggap bencana. Jenis penelitian ini adalah penelitian studi kasus. Dalam penelitian ini peneliti hanya berusaha mengumpulkan informasi sederhana tentang penanggulangan bencana di sekolah siaga bencana melalui survei, wawancara, dan dokumentasi. Integrasi mitigasi bencana dalam ilmu pengetahuan sosial di Sekolah Menengah Pertama sangat penting untuk memberikan pemahaman kepada siswa tentang pentingnya mengurangi risiko dan kerugian akibat bencana. Hasil penelitian menunjukkan bahwa secara umum siswa memiliki pemahaman yang cukup tentang kebencanaan khususnya bencana alam. Siswa tercatat memiliki apresiasi positif terhadap sekolah. Mereka juga mengetahui bahwa pengetahuan dalam memahami kebencanaan cukup memadai dibuktikan dengan hasil pemahaman siswa terkait kebencanaan antara lain banjir 80% dan puting beliung 75%, sedangkan jenis bencana lainnya kurang dipahami (gempa bumi 60%, dan kebakaran 50%). Namun dengan adanya kegiatan pendidikan mitigasi bencana di sekolah mampu meningkatkan pengetahuan, keterampilan penanggulangan bencana, dan memaksimalkan potensi diri, sehingga berdampak pada perubahan sikap yang positif berupa peningkatan kesadaran siswa tentang bencana dengan skor rata-rata 85%.

Kata Kunci: Ilmu sosial, model integrasi, pembelajaran mitigasi bencana

Introduction

Indonesia is an archipelagic country consisting of 17,508 islands, of which 6,000 islands are uninhabited, and is located in Southeast Asia between the Pacific and Indian Oceans. Indonesia has a total area of 5,180,053 km², which consists of a land area of 1,922,570 km² (37.1%) and seas of 3,257,483 km² (62.9%) with a coastline of 81,000 km. Geographically, it is located in a series of tectonic plates: Australia, Pacific, Eurasia and the Philippines which makes Indonesia vulnerable to geological changes (Afifah et al., 2021; Maryanto et al., 2019; Zamroni & Kafrawi, 2021).

Indonesia's geological conditions which are located between the world's three major plates cause Indonesia to have the potential to be hit by floods, earthquakes, tsunami waves and volcanic eruptions (Nugroho, 2013). In addition, geographical conditions are located between two oceans,
namely the Indian Ocean and the Pacific Ocean, causing Indonesia to be in the cross lane of the west monsoon winds which allows for the potential for hydrometeorological disasters such as floods, landslides, drought as well as forest fires based on BNPB data for 2023 recorded May 11, with The number of disaster events was 988, which were dominated by floods, extreme weather, landslides, forest fires, tidal waves and abrasion, earthquakes and volcanic eruptions. The trend of disasters in Indonesia from year to year looks dynamic with increases and decreases. Several explanations in Law no. 24 2007 concerning Disaster Management article 1 one point (1) it states that: disasters are events that threaten and disrupt the life and livelihood of disaster-safe schools caused, either by natural factors or non-natural factors and human factors resulting in casualties human, environmental damage, loss of property and psychological impact (Hapsari, 2022).

Every incident of disaster always brings sorrow to the victims and their families, causes social, economic, cultural, environmental losses and hinders progress for all people's livelihoods. For this reason, it is necessary to have systematic, measurable, planned and sustainable efforts in disaster mitigation education. Disaster prevention and management must be based on BNPB 2016 Disaster Risk Index reduction data, where 21% of Indonesia's territory is prone to flooding, 27% of areas prone to earthquakes, and 30% of areas prone to landslides. There is not a single Regency/City in Indonesia that is free from the threat of disaster (Puspitotanti & Karmilah, 2022). Because in essence disaster events can occur anytime and anywhere so that disaster mitigation efforts are needed/efforts to reduce the impact of disasters can be in the form of damage and loss due to disasters.

Based on data from the Directorate of Disaster Risk Reduction, BNPB stated that 75% of school buildings are disaster-prone. School is a place for teachers and students to interact learning. In every disaster event, children are the most vulnerable group to become victims (Hidayat et al., 2018). Disasters never know place and time, for this reason, strengthening awareness of the threat of disasters can begin to be grown since children are studying at school and disaster mitigation education efforts can also be started from schools where students study.

In accordance with the Mandate of Law No. 20 of 2003 concerning National Education, explained in article 32 paragraph (2), "Special service education is education for students in remote or underdeveloped areas, indigenous peoples who are isolated and experience natural disasters, social disasters and are unable from an economic standpoint. From the mandate of the Child Protection Law number 23 of 2002 it states that education and protection, the authorities, as well as competent institutions are obliged and concerned to ensure that these special educational and protection needs are met (Ivan, 2021). In an effort to support schools in building disaster preparedness, various components, both institutions and institutions, have carried out various disaster mitigation education activities/programs at the school level.

Schools are considered as an important unit in disaster mitigation education efforts in dealing with disasters. Schools both physically and socially must be able to protect school...
members from the threat of disaster. For this reason, the implementation of disaster safe schools is considered to be important as a pre-disaster disaster mitigation education effort. United Nation International Strategy for Disaster Reduction* (UNISDR) which states that quick response is to know and be trained so that we truly understand the disaster risks in our environment (UNISDR, 2009), BNPB through Perka No. 4 of 2012 concerning disaster-safe school guidelines which explain in a structural framework and non-structural framework what supports safe schools (Hidayat et al., 2018).

In general, the word education can be distinguished in two meanings, namely education as an "object" and education as a "process". As an "object", education has two meanings, namely educational institutions or "science" or more precisely the science of education. The social action approach is a view that leads to task goals and process goals. Some elements of social action organizations place an emphasis on establishing new rules or changing certain practices. Usually this goal results in a modification of the policies of formal organizations. So far, Al Manshur Middle School is an institution designed for teaching students or students under the supervision of educators or teachers, where if there is a threat of disaster, then of course the school will try to make disaster mitigation efforts. The results of thinking in the form of initial schemes in advocating are as follows;

![Figure 1. Thinking framework](image)

Based on the results of observations of the initial scheme in carrying out disaster mitigation education efforts by maximizing the role of various parties including school residents, Al Manshur Middle School leaders, and the BPBD Sidoarjo Damkar Rescue Team, in building disaster mitigation education efforts in a sustainable manner social action is an effort to gather ideas and commitment together both in individuals, groups and communities, including school members who seek to increase knowledge in disaster. If there is already a discourse on mitigation, it is necessary to have disaster education which can be carried out in schools. Once again, the

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importance of implementing disaster mitigation education in schools needs to be done early, in order to provide new experience and knowledge regarding preparedness for actions that need to be taken before or during an unexpected natural disaster to minimize all impacts. Thus it can lead to the ability to think and act effectively when a disaster occurs.

Based on initial observations, it was found that there were two disasters that occurred, the first was the tornado disaster that occurred in 2016, while the damage to infrastructure at Al Manshur Middle School. While environmental damage many trees were uprooted. Second, the regular flood disaster hit the village of Agal Agil. Several other incidents have also been repeated on 12 October 2022 yesterday, namely the tornado disaster which damaged school facilities such as the collapsed roof and roof tiles of the mosque.

Every child has the right to safety and survival, as well as the right to receive quality and sustainable protection. These rights are often in danger of not being fulfilled due to natural hazards and technological hazards that cause large and small disasters. This disaster, be it large, medium or small scale, has an impact on children's safety and education. When education is disrupted, a child's education can be interrupted, sometimes forever, which means having a long-term negative impact, both economically and socially, on the child, his family and his community. The education sector has an important role in facing various challenges caused by disasters and in preventing hazards from becoming disasters (Hyde, 2012). By conducting hazard and risk assessments, planning based on the results of these studies, carrying out physical and environmental protection, and preparing preparedness plans, hazards can be prevented from becoming disasters. Schools are institutions where knowledge and skills are shared, so the expectation that schools become role models in disaster prevention is high. The success of disaster mitigation is one of the main tests of the success of education passed down from generation to generation.

The goals of a comprehensive safe school in dealing with predicted hazards, both natural and man-made, are to: 1) Protect students, teachers and other education personnel from the risk of death and injury at school, 2) Plan for continuity of education in the face of hazards as expected, 3) Strengthen the resilience of community members to disasters through education, 4) Protect investment in the education sector. In line with this, the government, through National education since 2010, has paid serious attention to disaster issues in (SE) Minister of National Education No.70a/SE/MPN/-2010 concerning Mainstreaming Disaster Risk Reduction in Schools, the Minister of National Education appealed to all Governors, Regents and Mayors in Indonesia to organize disaster management in schools through 3 things, namely: (1) Empowerment of institutional roles and school community capabilities, (2) Integrating DRR into the Curriculum of Social Sciences Formal Education Units, both intra and extracurricular, (3) Building partnerships and networks between parties to support the implementation of DRR within Minister of National Education circular letter No 70a/MPN/SE/2010 as a national reference which has a vision to create a culture of safety and preparedness for disasters through a decentralized education system that is
able to support disaster risk reduction through efforts to reduce vulnerability and increase capacity in the education sector (Ivan, 2021). The application of the above mainstreaming prioritizes the integration of disaster mitigation materials in various learning activities in schools. What has not been explicitly stated in the Minister of National Education circular letter No 70a/MPN/SE/2010 is a strategy for vulnerable groups in schools. Vulnerable groups in question are pregnant women, the elderly and children with special needs. from the support of the United Nations Development Program (UNDP), the National Disaster Management Agency (BNPB) and the Disaster Education Consortium (KPB) to the Ministry of National Education which began in 2008. This form of concern can be seen through the preparation of the Mainstreaming Strategy for Disaster Risk Reduction in schools which is an appendix along with the teaching modules for integrating DRR prepared by the Curriculum Center as a guide in implementing DRR in schools. Mainstreaming DRR into the school curriculum has short and long term goals. The short term goal is to make children safer when a disaster occurs and to make them agents of change who can spread knowledge to a wider audience, especially their own families. The long term goal is to prepare children as future generations with the knowledge of disaster prevention, mitigation and preparedness.

Some disaster experts argue that children are a state asset that needs to be protected as an investment for future generations. School is a place where children spend most of their time. Therefore it is necessary to make schools a safe place against disasters as well as a place for children to learn knowledge about how to save themselves and reduce the risk of disasters in their environment. This is important because disasters often occur during study hours when children are at school. Muhammadiyah Disaster Management Center or better known as the Muhammadiyah Disaster Management Institute was established in 2007 by the Muhammadiyah Central Executive. This institution is engaged in the field of disaster whose task is to prepare human resources qualified and have special skills so that they can carry out their duties if a disaster really occurs. In addition to preparing resources at the disaster risk reduction stage (Hilman, 2018).

The inculcation of moral values is actually carried out from an early age to becoming a mulatto, as a social being who in the process of life requires interaction with one another in a good manner so that the relationship is harmonious, not harming oneself or others. In basic education on disaster preparedness, morals are also emphasized as one of the materials presented during education, although not in writing but included in every activity. In this study the integrated learning model is an implementation model of the social studies curriculum which is recommended to be applied in junior high schools, especially in social studies to work on the theme of disaster mitigation. The integrated learning model is essentially a learning approach that allows students,
both individually and in groups, to actively seek, explore and discover concepts and principles in a holistic and authentic manner. It aims to form a capable person to live in society.

In the educational objectives, the quality of human resources is reflected in the integration of quality, attitude, knowledge and creative and anticipatory behavior. According to Carlos Fuentes et al., (1980) in developing the world of education must refer to the needs of students in the future. In this regard, Tilaar (2015) said that new paradigms are needed in national education, one of which is directed at developing behavior that responds to internal and global challenges. This requires the existence of human capital that brings excellence in competition so that it is necessary to have learning innovations that are developed on a competency basis. Education contains values which are the basic needs of human life. In addition, education is an effort to prepare students to have high quality intellectual, emotional, spiritual and social abilities. The competencies developed are the skills and expertise to survive in the changes, conflicts, uncertainties, uncertainties and complexities in life. This basic competency is a standard that is applied nationally, but in practice to achieve the basic competence it is adjusted to each region and school.

National standards have a mission to make education superior and equitable for all. National standards contain a framework for what students should know, do, and achieve at each level. These skills are known as life skills, life skills in this case are not just standard skills that refer to work orientation, but place more emphasis on exploring students' potential which can be developed to live more survive including skills: about self (self awareness), rational thinking (thinking skills), social (social skills), academic (academic skills), and vocational (vocational skills). This standard is also accompanied by standards for the formation of noble character which prioritizes the formation of a value system to realize Indonesian people who have personality and work ethic, as well as active participation, democracy and nationalism in the life of society, nation and state. Social science is one of the subjects taught in the world. Social science education is an integrated study material which is a simplification, adaptation, selection and modification of the concepts and skills of the disciplines of history, geography, sociology, anthropology and economics which are scientifically organized and psychology for learning purposes (Nursyifa, 2019).

In this study, researchers explored information from several previous studies as comparison material, both regarding the advantages and disadvantages that already exist. In the previous research discussed the communication of natural disaster mitigation such as volcanic eruptions, floods, and earthquakes. Roskusumah (2013) first research discussed how the views of the community around Mount Merapi saw the mitigation communication itself and the efforts and patterns of communication made to increase community participation through socialization and disaster simulation or training. Furthermore, there is research entitled Flood Disaster Mitigation by (Sakban et al., 2020; Urbanus et al., 2021; Yuniartanti, 2018), this study discusses the forms of

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structural mitigation and non-structural mitigation. Then the next previous research entitled "Disaster Management Planning Through a Risk Management Approach" by Ahdi (2015). This research discusses disaster management planning through a risk approach in Malang Regency. From existing research, there has not been a model for integrating disaster mitigation into learning in secondary schools. When viewed by age group, high school students are dominated by young people. The largest percentage of Indonesia's population is in the age group of 10-14 years, namely 8.39% and 8.12% for both males and females respectively. So it is very appropriate if socialization in disaster mitigation is implemented in schools by integrating it in social studies learning. Mitigation integration in Social Studies learning consists of protective activities and actions that can be started from preparation before a disaster occurs, disaster hazard assessment, disaster management, in rescue, rehabilitation and relocation.

Methodology

This research is qualitative research that can be designed to contribute to social science education based on disaster mitigation. This qualitative research also reveals efforts to explore natural phenomena that have occurred, which may not be predictable when they will occur, but signs of natural disasters can be recognized, from the triggers that accompany them, of course natural disasters are destructive which can destroy and damage everything that he encountered to the point of losing his soul, like the process of a collaborative work step. In realizing disaster-safe schools, it is hoped that they will be able to strengthen the system that has been formed in schools.

Denzin and Lincoln Meleong, define qualitative research as research that uses a natural setting (Moleong, 2018; Moleong, 2019) with the intention of interpreting natural phenomena that occur and is carried out by involving various existing approaches such as social action approaches that are able to optimize soft Al Manshur Middle School students and teachers' skills in coping natural disasters through training and making meaningful learning implementation plans in accordance with the context of protecting students against disasters. In order to minimize the occurrence of potential threats and vulnerabilities as well as the impacts caused by disasters, both before, during and after a disaster occurs, the integrated mitigation education steps are firstly upholding the values of local wisdom. Second, optimizing the participation of learners/students in mitigation education.

The selection of informants as a source of data was carried out purposively, that is, informants were selected taking into account certain objectives, especially on their experiences, and selected informants who had knowledge of the issues raised, and informants must have a strong influence in their communities, so that the data to be generated by researchers will be truly valid and true. In this study the researchers used 1) Primary data sources, namely students and teachers who were involved in the research. In this study, the researchers selected informants who would provide data or information regarding the focus of the research. In this case the researcher must be

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careful in placing key informants, as for the data taken about Islamic religious values in schools. Secondary data are outside informants who know the actual condition or description of the research focus where disaster mitigation education is needed on an ongoing basis, especially in educational institutions such as SMP Al Manshur. The informants were Al Manshur Middle School students and teachers at the school, also optimizing the role of the Sidoarjo Regency BPBD Fire Rescue Team for the characteristics of the informants who were interviewed separately in this study as a unit of parties who have the same relevance regarding the substance of the research. Starting from identifying school needs and assessing the extent of the steps for preparing disaster mitigation RPP at Al Manshur Middle School, in the process of optimizing the role of students and teachers it is hoped that there will be regular assistance efforts to increase understanding of disaster mitigation based on Islamic religious values, starting follow-up that have been carried out with the aim of building trust between stakeholders.

Based on the selection of informants above, basically primary data can be used as a data source, scattered data from key informants, will later be processed according to existing processes in the field, this research is more focused on disaster mitigation education. As for the informants who are listed on the list or the list is determined as a participant, both individuals and representatives from agencies who are fully involved, in the development of this research. The data to be extracted is in the form of statements from each participant, or changes in behavior in the field. The subjects in this study were students at SMP Al Manshur Candi, Sidoarjo Regency. The questions asked have been limited by the researcher, namely about the focus of the problem. And this subject can use the snow ball technique, namely the technique of determining the respondents selected by the researcher who becomes the core respondent. So if respondent one does not have complete information the researcher can move on to the next informant.

To analyze and validate the data obtained in the integrated research on disaster mitigation in Social Sciences in Junior High Schools, several methods were used, including qualitative analysis methods used to understand the meaning and context of the data obtained through interviews, observations, or field notes collected in the research. Furthermore, quantitative analysis was carried out in integrated research on disaster mitigation in social studies through survey data or rating scales obtained from students, then content analysis was carried out by analyzing textbooks, learning materials, or lesson plans related to disaster and mitigation. Data was validated using the cross-subject validity method involving examining the findings or interpretation of the data by other different stakeholders or experts in relevant fields. In research on the integration of disaster mitigation in social studies, you can involve other social studies teachers, disaster experts or education experts to review the findings.
Results

Initial disaster mitigation education, starting with student mapping and the level of enthusiasm and participation of students who can be involved in disaster mitigation education, in this case studying the understanding of disaster mitigation learning planning, starting with lesson planning, the benefits and functions of learning planning and mitigation education steps disaster. on the fields or stages in disaster management mentioned above, specifically in each field of work, the mitigation plan has principles in its implementation, 1) prepared under normal conditions, 2) contains various threats, vulnerabilities, owned resources, organization and roles/ function of each institution/actor, 3) used for various types of threats (multi hazard), 4) serves as a guide or direction in the preparation of sectoral plans, 5) its activities focus on prevention and mitigation aspects. In recognizing the threat of natural disasters, it is necessary to pay attention to the responsibility for personal safety and those around us, bearing in mind that the threat or potential for a disaster can occur anytime, and anywhere, so what is needed is to identify the type of disaster such as an earthquake disaster, avoid glass, cupboards and building ruins. So that the impact of a disaster that has the potential to harm and eliminate casualties can be minimized. In general, the causal factors for disasters are due to interactions between threats (hazard) and vulnerabilities. Disaster threats according to Law number 24 of 2007 are an event or event that can cause a disaster. Vulnerability to the impact or risk of a disaster is a condition or geographical, social, economic, political, cultural characteristic of a community in an area for a certain period of time that reduces the ability of school members to prevent, reduce, achieve preparedness, and face certain hazards.

Increase Students' Knowledge about Disasters

One of the main objectives of this research is to increase students’ knowledge about disasters. The integration of disaster education in social studies will enable students to study the types of disasters, their causes and their impact on society. With better knowledge about disasters, students will become more aware of the risks that are around them. Increasing student awareness about the importance of disaster mitigation. This study also aims to increase student awareness about the importance of disaster mitigation. Through learning about mitigation strategies such as emergency planning, risk mapping, and other risk reduction measures, students will understand how important preparation is before a disaster occurs and mitigation measures to reduce its impact. Understanding of disaster threats includes comprehensive knowledge of the process by which hazards occur, the level of probability of a disaster occurring and how likely it is to occur, mechanisms of physical damage, sectors and activities that are greatly affected by disaster events, and the impact of the damage.

Based on the results of the research at the beginning of the readiness level of grade 9 students at Al Manshur Middle School, there is still no readiness in understanding natural disasters, but when the learning process for disaster mitigation education begins in the classroom and instills
human principles that are introduced indirectly, it can raise students' awareness to want to be involved in a series of disaster mitigation education. The involvement of students must be based on a sense of trust or trust and a process of conveying it with visual media so that students are able to feel what it is like if a disaster occurs and what efforts must be made before a disaster occurs.

Actions in an effort to change are carried out together with the community to meet needs and overcome problems experienced by the community itself based on a plan that has been prepared and mutually agreed upon in the form of a program. There are two implementation of interventions: 1) in developing the understanding of the school community more emphasis is placed on achieving consensus. This is usually done through communication and discussion processes involving various individuals and groups. Blakely also stressed the importance of the deal. 2) social planning which places more emphasis on data collection and skills to analyze the consensus process.

Preparation for disaster mitigation education starts from a long process, the learning process starts from identifying the risks of natural disasters that have occurred at SMP Al Manshur floods, initial preparations before implementing a series of disaster mitigation education, researchers hold meetings with SMP Al Manshur teachers to discuss the first steps in implementing the simulation disaster, the researcher emphasized that the role of the researcher was only as a facilitator, and to bridge the mitigation needs, the researcher asked questions to all the teachers present, for disaster mitigation training could not be carried out, considering this is a safety requirement in responding to disasters, especially in schools, seeing the teacher's enthusiasm. In general, students have adequate understanding of disasters, especially earthquakes, but most do not know about floods, tornadoes and fires. The understanding of disasters is explained in the explanation that natural disasters often occur and the impact is felt. The following is a graph of disaster understanding from Al Manshur Middle School students regarding natural disasters

![Students' Understanding of Disasters](image)

Figure 2. Knowledge of disaster management

Based on the types of natural disaster threats that were well understood by students were floods 80% and tornadoes 75%, while other types of disasters were poorly understood (earthquakes: 60%, and fires: 50%). Judging from the percentage, more than 50% of students have a good

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understanding of disaster. This student understanding is obtained through lessons at school, disaster modules, and disaster management training organized by schools and other institutions. Besides that, there is the factor of information disclosure, especially in the mass media, online media is always updated in providing information regarding knowledge of natural disasters and carrying out integrated mitigation.

**Develop students' disaster response skills**

The integration of disaster education in social studies also aims to develop students' disaster response skills. Students will be trained in emergency response actions such as first aid, evacuation, emergency communication, and saving themselves and others. With these skills, students will be better prepared and able to act in emergency situations. Based on the results of in-depth interviews, from several teacher informants and input from several Fire Department teams, preparation for disaster mitigation education begins with instilling an understanding of the impact of disasters, knowing the types of disasters, disaster threats, disaster risk, the vulnerability of skills that students must have when a disaster occurs, all of them explained in the initial preparation when the student debriefing begins, it is necessary to support the teacher to supervise and make preparations starting from documenting and coordinating grade 9 students, with the hope that everything will go well and orderly.

Initial preparation before starting the simulation, the researcher held a meeting with all students to equalize perceptions about disaster mitigation education, the researcher tried to arouse students' enthusiasm to continue to increase their roles and responsibilities as Al Manshur Middle School students, because when reflecting on pre-existing disaster preparation and management still responsive, there is no awareness of the threat of disaster, the existence of a cooperative relationship will result in an exchange of knowledge which is essentially a common goal that was initiated. The purpose of the simulation activity is the protection of students and school members at Al Manshur Middle School.
Students already have an adequate understanding of disaster management. Student attitudes can be addressed with fear and panic and run. Questions about attitudes in dealing with disasters were shown after the process of disaster mitigation education activities in the form of disaster simulations was carried out by prioritizing the participation of students and teachers in one command of the Sidoarjo BPBD Fire Department. Disaster training is also considered important where students are trained to be able to have skills. Based on the data above, the integration of disaster material in learning is 85%, the frequency of participating in disaster training in schools is 80%, routine disaster training is 78%, while training from experts (damkar BPBD Sidoarjo) is 75%, and students receive training in internal disaster management (schools) 80% in this case the students stated that they strongly agreed if the training activities were held regularly. However, the students hoped that the training held at school would bring in more instructors from outside the school. The simulation of disaster is also considered important so that it is considered important to implement it. Simulations of floods, earthquakes and fires are simulated so that when a disaster really comes, students do not experience panic and are confused about what to do and be able to prioritize resilience in every disaster mitigation education activity.

Considering that a simulation is a series of activities that drain energy and solid cooperation, it is necessary to divide tasks in carrying out their roles, for example someone is in charge of making initial preparations by identifying risks, making stretchers, preparing assembly points, and coordinating disaster victims, knowing the response when it occurs. Disasters, as well as the implementation in an orderly manner during the simulation, all play an active role in disaster mitigation education activities. The involvement of grade 9 students, and in general all of Al

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Manshur Middle School students is the main thing, because students are part of the first victims, who will feel the impact of a natural disaster. This is not just an appeal but this is a series of activities that must be carried out in a systematic, planned, targeted and affordable manner according to the abilities of students. Disaster mitigation education learning tools are in the form of disaster simulation by playing roles, meaning that there are those who act as victims, there are teams who are responsible for coordinating colleagues when carrying out simulations, there are medical teams who help when a disaster occurs, there are carrying stretchers, and identifying victims, determining gathering points, and there are those who document the simulation results, all of which must be reported properly according to the conditions in class 9 at Al Manshur Middle School.

The value of social attitudes such as being responsible in the disaster mitigation education process, the main thing is being able to carry out the mandate, first to make efforts to save flood victims, in which each team member is given the task of being able to identify victims, and carry out first aid efforts, second to maintain commitment to process in a participatory manner, without mutual trust (trust), against fellow teams then it cannot run well. Considering that the social action approach is an approach that is able to optimize the soft skills of Al Manshur Middle School students and teachers in natural disaster management through training and making meaningful learning implementation plans in accordance with the context of protecting students against disasters. In order to minimize the occurrence of potential threats and vulnerabilities as well as the impacts caused by disasters, both before, during and after a disaster occurs, the integrated mitigation education steps are firstly upholding the values of local wisdom.

Social value is one of the values that is suitable to be applied in flood disaster mitigation education, because it is able to lead students to hold the mandate and be responsible for the tasks given, so that students are able to think critically (Sudirah et al., 2020). In disaster management not only requires awareness, but is willing and able to carry out the role in disaster mitigation education. The form of cooperation as evidenced by the readiness of students who are responsive when carrying out simulations is a provision for the future, in minimizing the impact of disasters. In simple terms, students are taught to help each other, to be trustworthy, to have the courage to make decisions during an emergency, to be able to carry out the mandate, and to be responsible, not to be selective in making relief efforts, so that is where the social value lies in efforts to reduce the impact of disasters. A person will be assessed as capable and successful in carrying out the mandate, able to complete all of his work so that he is said to be a student who is responsible for the work given. Meanwhile, the Divine value in disaster mitigation teaches students to put their trust in, be patient, and be grateful for every pleasure that was given before.

On March 13 2023, at Al Manshur Middle School, disaster mitigation education activities were carried out through disaster simulation involving several parties including students, teachers, other school residents and the BPBD Sidoarjo fire team, activities carried out in the afternoon.
attended by all students IX and several students who other along with accompanying teachers, who also help with the running of the simulation activities, in the simulation, students have been previously equipped with knowledge about threats, risks, vulnerabilities, and what abilities must be possessed before, during and after a disaster occurs, students have also been given an in-depth understanding regarding the impact of natural disasters, such as the events of floods and tornadoes that have occurred at Al Manshur Middle School, the form of efforts undertaken is still considered an emergency response, or the emergency response has not been in a preventive direction, for that the steps taken are in accordance with the needs and security, safety of students, then disaster mitigation education efforts are an alternative solution to find effective response solutions when a disaster occurs.

**Increasing student participation in disaster mitigation efforts**

This research also aims to increase student participation in disaster mitigation efforts. By involving students in projects and activities related to disaster mitigation, they will become agents of change in society. Students can apply the knowledge and skills they learn to help improve community preparedness in dealing with disasters. Based on the results of observations, the enthusiasm of students participating in disaster mitigation education can be seen from their participation, being involved and being able to share roles in disaster simulations, starting to make stretchers, looking for gathering points with the BPBD firefighting team, dividing the types of rescue when a natural disaster occurs. Because the simulation is related to an earthquake disaster, what is done by the students who are the first to recognize the threat of an earthquake, the impact of the earthquake hazard, students are given an early briefing on disaster management, technically they are trained to respond quickly when a disaster occurs, such as avoiding mirrors, hiding under a table., asking the teacher for help when the earthquake disaster had subsided, following safety procedures in an orderly manner according to the safety guidelines from the Sidoarjo BPBD fire team.
The main thing that increased was the first attitude and behavior as much as 65% of students expressed panic and fear when a natural disaster occurred. This attitude probably departs from the experience of students when a disaster occurred some time ago such as a flood and tornado. Even so, students expressed panic and fear, students stated that they strongly agreed not to run in all directions (85%). Students who strongly agree to run and gather in a certain place. This is perhaps the impact of various disaster training and simulations so that students already have an adequate understanding of appropriate behavior and attitudes when a disaster occurs. While students who look sensitive to the environment 80% and who choose to be calm 85%, from the description of attitudes and behavior above it can be ascertained the impact of understanding, training and evaluating disaster simulation activities is able to teach students to have a relatively calm attitude and behavior in dealing with natural disasters.

Reflecting on the role play in the disaster simulation, it is hoped that students will be able to find the courage to decide what actions to take when a disaster occurs, they even feel fully responsible if a victim is exposed to a disaster, they immediately respond swiftly, to do first aid, to provide medical assistance, and then bring them to gathering points that are considered safe from the threat of disaster, such as school grounds, mosques and buildings that are sturdy and far from disasters. The initial preparation basically refers to the planning of social welfare service programs. According to them, planning is an ongoing process involving decisions or choices about alternative uses of existing resources with the intention of achieving certain goals in the future. This definition views planning from a systems perspective because a continuous process cannot
be separated from a series of relationships that are interrelated and mutually influential between them. In the context of this system, there are input, process, output and feedback components in a plan, where each of these components can be intervened by factors outside or within the planning system.

Implementation of disaster mitigation education through compiling data on disaster risk in an area, at a certain time based on official documents containing disaster management activity programs. This includes the identification and assessment of disaster threats, understanding of vulnerabilities in schools, analysis of possible impacts of disasters, options for disaster risk reduction, determination of disaster preparedness and response mechanisms, and allocation of tasks, authorities, and available resources.

**Build awareness about cooperation and coordination**

This research also aims to build awareness about the importance of cooperation and coordination between stakeholders in disaster mitigation. Through the integration of disaster education in social studies, students will interact with firefighters, disaster volunteers and other related organizations. This will strengthen cooperation and coordination between schools, communities, and related agencies in efforts to reduce disaster risk. Based on the findings, protection efforts are always preceded by the following efforts: 1) There is a joint commitment carried out by both parties, school residents and the BPBD Damkar. 2) There is a unified perception of disaster management. 3) Involving external access with several parties such as BPBD Sidoarjo Regency and the private sector in disaster mitigation education. This choice explains that the existence of cooperation will increase capacity. It is hoped that this form of cooperation will be able to contribute to disaster observers and related stakeholders in providing evacuation route signs and safety posts for disaster victims and safety stretchers. Flood disaster management in the SPALMA environment is a design that has been prepared in such a way, to become a reference in decision making by relevant stakeholders. The impact of the disaster can be seen as follows:

![Figure 5. Impact of disaster (Mechler, 2005)](image)

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Disasters are always destructive, and disasters never choose their victims, whether women, children, rich or poor. The things that suffer the most are of course the social, economic and environmental aspects and a wider impact can be loss of assets in the form of profit-oriented businesses, loss of life in the human population, both victims from visitors and local people who can experience injuries, physical disabilities, and prolonged stress due to the loss of relatives. The source of involvement of the school community is local capabilities or initiatives and second is the third school policy concerning educational institutions, so the approach that must be taken is two dimensions, the first is social action. The second is disaster mitigation education based on Islamic religious values. These are two dimensions from different concepts. All then collaborate to become one inseparable unit.

The research results obtained in the field show that disaster mitigation education in flood disaster management at the pre-disaster stage 1) increases students' ability to respond to threats and disaster impacts with integrated simulations. 2) Develops action plans that are integrated in social studies learning plans to deal with disasters, including making evacuation routes and training the school community in disaster emergency procedures (drill simulation and early warning) can also be implemented in schools. 3) Evaluation after the implementation of learning. The social action approach is a view that leads to task goals and process goals. Some elements of social action organizations place an emphasis on establishing new rules or changing certain practices. Usually this goal results in a modification of the policies of formal organizations. On the other hand the vulnerability is also quite large. Such as the manager's lack of understanding of the initial disaster mitigation, which is a basis that must be addressed immediately. Due to initiate a widespread change. Of course it requires an approach that is carried out to achieve a success that is expected together.

![Figure 6. The process of disaster mitigation education](image)

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Based on the simulation process above, the basic point of the emergence of student concern for the school environment is awareness, leading students to take responsibility, the mandate to protect all school members. Accompanied by the division of tasks in each group to carry out a rapid response related to flood disasters. The values to be conveyed are the logic of safety which has been used so far by prioritizing vulnerable groups and trying to meet the needs of flood victims.

The pattern of social action assumes that the interests of each part of the school community are very varied and it is difficult to reach an agreement. Often the method of coercion must be used as a resistance, but in this case the efforts made are a persuasive approach. Building social action is not easy, it requires commitment from the people involved and requires significant support from the use of resources, both natural resources and human resources (HR), a component in the capacity for cooperation within individuals, the organization grows and has good progress. To build trust and awareness according to a certain pattern in integrated disaster mitigation research in social studies in junior high schools, through the following steps: Providing accurate and reliable information: Ensuring that the information conveyed to students about disaster mitigation is based on accurate and reliable sources. Using scientifically recognized sources or official institutions related to disaster mitigation. This will help build student confidence in the information provided. Using participatory learning methods: Use learning methods that involve active participation of students. Provide opportunities for them to discuss, share knowledge, and participate in practical activities related to disaster mitigation. This will help build students' confidence in the learning process and increase their awareness.

Convey information in clear and easy-to-understand language: Make sure that the information conveyed to students is conveyed in clear and easy-to-understand language. Involve students in concrete projects and activities: Involve students in concrete projects and activities related to disaster mitigation. For example, they can create an evacuation plan for their school, conduct an evacuation simulation exercise, or conduct a disaster awareness campaign in their community. Through this hands-on experience, students will feel the real importance of disaster mitigation and build confidence in their preparedness.

Involve parents and the community: Involving parents and the community in activities related to disaster mitigation can help build wider trust and awareness. Invite parents to participate in seminars or workshops on disaster mitigation, and encourage them to support student learning at home. Also involve community leaders or firefighters as resource persons or mentors in activities involving students. This will strengthen support and trust in disaster mitigation education programs in schools. Evaluation and feedback: Conduct periodic evaluations of integrated disaster mitigation programs in social studies in junior high schools. Solicit feedback from students, parents, and other relevant stakeholders. By listening to and responding to this feedback, one can continue to improve the program and build stronger trust in order to improve students' awareness of disaster mitigation. Social action here refers to fundamental changes in institutional and societal
structures through the process of distributing power (distribution of power), resources (distribution of resources), and decision-making (distribution of decision making). The social action approach is aware of a view that society is a client system that often becomes a "victim" of structural injustice. In the general picture, society is unable to fight the injustice that shackles them, and they are often weakened, and helpless because they are not empowered, by elite groups, people who control economic, political and social resources. Social action is oriented towards both process goals and outcome goals. The community is organized through the stages of awareness, empowerment and actual actions to change the power structure so that it better fulfills the principles of democracy, equality (equality) and justice (equity).

Disaster mitigation education activities can be carried out using a participatory approach or better known as CBDRM, or Community Based Disaster Risk Management, (Community/Community Based Disaster Risk Management). Disaster mitigation education activities can be carried out using a participatory approach or better known as CBDRM, or Community/Community Based Disaster Risk Management. The process of disaster mitigation in social studies in SMP involves a series of steps to reduce the risk and impact of disasters. The following are general stages that can be involved in the disaster mitigation process in social studies at junior high schools: Identification of disaster risks: The first stage in disaster mitigation is identifying the existing disaster risks in the school area and surrounding communities. This involves collecting data and information about the types of disasters that may occur, such as earthquakes, floods, fires or landslides. In social studies, students can learn about natural resources, weather patterns, and the geography of their area to help identify these risks. Vulnerability evaluation: After identifying disaster risk, the next step is to evaluate the vulnerability of the region and community to the disaster. In social studies, students can study factors that make an area vulnerable to disasters, such as the lack of adequate infrastructure, poverty levels, or environmental changes. Evaluation of this vulnerability can involve data analysis and regional vulnerability mapping. Emergency planning: After identifying risks and evaluating vulnerabilities, the next step is to develop contingency plans. This emergency plan includes steps to be taken when a disaster occurs, such as evacuation procedures, evacuation routes, location of safe places, and emergency communications. In social studies, students can learn about the importance of emergency planning and how to design effective emergency plans. Public education and awareness: An important part of the disaster mitigation process is increasing public awareness and education about disasters. In social studies, students can be involved in disaster awareness campaign activities in their schools and communities. They can convey information about types of disasters, mitigation measures, and emergency response measures to parents, peers, and the general public. Training and simulation: To prepare students for disasters, training and simulations can be carried out regularly. Training may cover first aid, evacuation, emergency communications, and other disaster response skills. In social studies, students can learn about emergency response

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actions through simulations and role-plays involving disaster situations. Evaluation and monitoring: The final stage is to evaluate and monitor the mitigation efforts that have been made. Students can be involved in environmental monitoring and reporting of conditions that may affect disaster risk. Regular evaluation and monitoring will help identify weaknesses in the mitigation plan and improve them on an ongoing basis. The involvement of the school community in the context of disaster mitigation education is the main thing. Because the residents of the Al Manshur Middle School are the first victims who can experience and feel the impact of a natural disaster. Because it is not possible to know the occurrence and extent of the impact of a disaster. Therefore, the importance of a sense of belonging to one another. Closeness in emotional relationships must be built, bearing in mind that human culture will fade with the times, except for religious values that are "rahmatan lil alamin", bringing mercy to all of nature and everything in it. (Coliandris, 2016; Lassa et al., 2014; Yadav et al., 2022) suggests that the preparation of a participatory disaster risk management plan is carried out after an analysis of the results that have been presented at the assessment stage. The community itself identifies risk mitigation measures to reduce vulnerability and increase capacity.

In the process, after identifying problems or needs based on the results of the risk analysis above, an intervention plan is prepared to reduce disaster risks that occur in the target group and seeks to build commitment to jointly plan activities in a participatory manner. The construction of thoughts towards a better direction, what actually exists is disaster mitigation education capital, which is made on a shared commitment. Between SMP Al Manshur and Damkar BPBD, while changes in the construction of thinking from policy making, are also the focus of preventive steps, which are sustainable.

**Conclusion**

Based on the presentation and analysis of the data, the authors conclude that the implementation of disaster mitigation education is integrated into social studies learning, the authors convey as follows: Obtaining data related to students' understanding of disasters shows that natural disasters that are well understood by students are floods 80% and tornadoes 75%, while other types of disasters are poorly understood (earthquakes 60% and fires 50%). This shows that more than 50% of students have a good understanding of disaster. Students' perceptions of disaster training activities are considered important where 85% of students stated that they strongly agreed if disaster mitigation training was integrated into learning. However, the students hope that the training held at this school will bring in instructors from outside the school. Disaster simulation is also considered important so that it is considered important to carry out. Earthquake, quake, tornado and flood disaster simulations need to be simulated so that when a disaster does come, students are no longer panicked and afraid. Students' attitudes and behavior in dealing with disasters showed that 65% of students expressed panic and fear when natural disasters occurred.
and an average of 85% of students showed a positive attitude in dealing with disasters. However, even though they expressed panic and fear, students stated that they strongly agreed not to run in all directions (85%). Students stated that they were sensitive to the surrounding environment 80% and chose to be calm 85%, from the description of attitudes and behavior above it can be ascertained the impact of understanding, training and evaluation of disaster simulation activities being able to teach students to have relatively positive attitudes and behavior in dealing with natural disasters. However, even though they expressed panic and fear, students stated that they strongly agreed not to run in all directions (85%). Students stated that they were sensitive to the surrounding environment 80% and chose to be silent 85%, from the description of attitudes and behavior above it can be ascertained the impact of understanding, training and evaluating disaster simulation activities is able to teach students to have relatively positive attitudes and behavior in dealing with natural disasters. Based on the research results, it is known that the integration of disaster mitigation in social studies learning in junior high schools is very important to form student awareness of the importance of disaster mitigation. Therefore, it is suggested that the social studies curriculum in junior high schools integrates disaster mitigation education into learning, bearing in mind that Indonesia is a disaster-prone area so that it can increase students' awareness of the dangers of disasters and reduce students' vulnerability to the effects of disasters. In addition, teacher competence is needed in developing teaching materials and materials that are relevant to disaster mitigation education.

References

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