



Implementation of Natural Disaster Mitigation Learning Tsunami Material in Group B Kindergarten Harapan Jaya Tira, Sampolawa District, South Buton Regency

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ABSTRACT

Learning about natural disaster mitigation for children can develop children's preparedness in facing disasters. Natural disaster mitigation learning provides material about pre-disaster, during a disaster and post-disaster. In this research, researchers focus on learning about tsunami natural disaster mitigation. This research aims to find out how the tsunami natural disaster mitigation learning was carried out by Group B teachers at Harapan Jaya Tira Kindergarten, Sampolawa District, South Buton Regency. This research method uses descriptive qualitative methods with data collection techniques using observation, interviews and documentation methods. The first data analysis step is data reduction, the second is presentation of research data grouped based on theme findings and the last is the conclusion. The findings of this research show that teachers in Group B at Harapan Jaya Tira Kindergarten, Sampolawa District, South Buton Regency: 1) learning about natural disaster mitigation is included in the theme of the universe and the sub-theme of natural disasters, 2) conveys pre-disaster information, 3) conveys information during disasters and simulations during disasters, 4) conveying post-disaster information and post-disaster simulations, 5) applying learning methods for mitigating tsunami natural disasters using simulation methods and storytelling methods, 6) using learning media for mitigating tsunami natural disasters using image media.

Keywords: *Early Childhood Learning, Implementation, Mitigation of Natural Disasters*

1. Introduction

One of the countries in the world that has the greatest risk of natural disasters is Indonesia. Life in Indonesia these days seems to be very accustomed to disasters such as tsunamis. This is due to Indonesia's geographical location which is at the intersection of the movements of the Eurasian, Indo-Australian and Pacific tectonic zones. In this situation, Indonesia cannot be separated from the disaster that has occurred (Elfiana, 2019). Sutopo Purwo Nugroho, Director of the BNPB Data Information and Public Relations Center, claimed that 2016 was a year full of disasters, with 1,985 disasters recorded as the highest number of disasters in the last ten years. The movement of longitudinal fractures/vertical fractures caused this tsunami disaster. All age categories, including babies, children, teenagers, adults and the elderly, were affected by the disaster. However, young people are the age category most at risk of being affected by natural disasters (Balaban, 2006). Children are more likely to be affected by natural disasters if they are poor or live in developing countries (Rahiem, 2020). The result is health, social, economic, religious and psychological disorders. These psychological effects include post-traumatic stress, appreciation of disaster experiences, decreased social support, decreased ability to adapt to changes that occur, decreased self-esteem, and decreased positive expectations (Anggarasari, 2019).

A practical exercise for emergencies related to natural disasters. The goal is to ensure that you are prepared to handle a crisis. Through interactive games and the use of entertaining tsunami images, children are exposed to personal safety. Children are also active and directly involved in it. Personal safety education can help children understand dangers and how to deal with them, which is one way to keep them away from danger (Gillham and Thompson, 2005).

Natural forces have a significant influence on human life, both positively and negatively, which are then referred to as disasters. Knowledge, understanding, preparedness and skills are needed to prevent, detect and predict various types of natural disasters early, also known as disaster mitigation, in order to reduce risks or losses to humans. Rescue, rehabilitation, and relocation are examples of disaster protection activities and measures included in mitigation. Through education that specifically addresses these issues, knowledge, understanding, and behavioral skills in the successful prevention, detection, and anticipation of disasters can be transformed and disseminated.

Observations at Harapan Jaya Tira Kindergarten, Sampolawa District, South Buton Regency, where I started implementing disaster mitigation education, revealed that there was not much natural disaster mitigation content that researchers wanted to teach in implementing tsunami natural disaster mitigation learning. The problem in schools is that teachers cannot communicate effectively with students so that children receive information. This school has just started teaching its students about natural disasters known as tsunamis by telling them about what tsunamis are and how to defend themselves. In fact, material for dealing with the impact of the tsunami can be distributed which includes evacuation, relief and assistance, preparation for natural disasters, and self-defense.

Children will learn knowledge about natural disasters, attitudes towards facing natural disasters, the value of protecting the environment to prevent disasters, and alternative methods of mitigation efforts through implementing early disaster mitigation education. So that children know how to save themselves when a disaster occurs, there needs to be training in disaster mitigation techniques with an emphasis on increasing their ability to deal with disasters which can be done as early as possible at home or in kindergarten. As much as possible, children's understanding of tsunami disaster mitigation can be improved through classroom activities, such as play activities. Consider justification. Based on the explanation above, researchers need to continue research entitled "Implementation of Natural Disaster Mitigation Learning Tsunami Material Group B at Harapan Jaya Tira Kindergarten, Sampolawa District, South Buton Regency."

2. Methods

This research uses descriptive research. Descriptive qualitative research is an analysis method that uses descriptive categories to describe the current state of a topic or object. The researcher used Investigative Naturalism, a qualitative strategy that allows observation and data collection in a natural environment, capturing the reality of the situation. This method was used to study the implementation of tsunami disaster mitigation learning materials through play activities at Harapan Jaya Tira Kindergarten, Sampolawa District, South Buton Regency. The goal is to produce quality scientific work in accordance with natural criteria.

This research uses observation, interviews, and documentation as data collection techniques. Observations include field observations of various aspects, such as space, location, actors, activities, objects and objectives. Interviews involve

face-to-face debriefing, with a focus on understanding experiences and perspectives from the source's point of view. Documentation, whether written, graphic, or electronic, is a data collection method targeted at research participants. This study used two observations, each with a different teacher, to complement the interview technique. The primary data source in this research is the interview method.

Data analysis is the process of systematically collecting information from various sources, including field notes and conversations. In qualitative research, data analysis is carried out before, during, and after field research. In this research, the Miles and Huberman model was used to analyze tsunami natural disaster mitigation learning for early childhood. The analysis involves three paths: data reduction, data presentation, and conclusion drawing/verification. Data reduction focuses on reducing and abstracting "coarse" data from fieldwork documents. Data presentation can take various forms, such as summaries, charts, and flowcharts. Conclusions can be in the form of descriptions, cause and effect relationships, hypotheses, or theories.

3. Findings and Discussions

Based on observations and interviews conducted by researchers, it can be seen that the implementation of learning about natural disaster mitigation in Group B tsunami material at Harapan Jaya Tira Kindergarten, Sampolawa District, South Buton Regency is the basis for children to know that tsunami disaster mitigation learning is included in the theme of the universe and the sub-theme of natural disasters. , delivery of pre-disaster information, delivery of information during a disaster and simulations during a disaster, supporting factors and inhibiting factors through simulation activities during a tsunami, delivery of post-disaster information and simulations during a post-disaster, application of learning methods for mitigating natural disasters, use of learning media for mitigation of natural disasters, tsunamis are seen, namely:

Tsunami Disaster Mitigation Learning Is Included In The Theme Of The Universe And The Sub-Theme Of Natural Disasters

Learning about tsunami natural disaster mitigation carried out by teachers is part of the theme and sub-theme of natural disasters. The teacher begins learning by creating a concept of learning material that will be included in themes and sub-themes in learning. This can be explained by the WZ teacher as follows:

"Here there is a lesson on the theme of natural disasters, but in the class we hold activities such as storytelling, question and answer, simulation movements, and then children can read and color."

"In this kindergarten, thank God, disaster mitigation lessons have been taught. Then we can also include lessons on the theme of natural disasters. In that class, children usually do worksheets and the children are asked to color in simulation activities and at the same time the teacher tells a story in front of them."

The natural disaster theme presented discussed the sub-theme of the tsunami disaster. As stated by WZ below:

"Our material is on the theme of the universe and we can also take the sub-theme of natural disasters and here we will also introduce the children to what types of natural disasters there are, we will mention them later or the children will mention them later too. Then, if I've read on Google, there are things that must be done and paid attention to before a disaster, during a disaster and after a disaster. I told the children what it was like to walk and what we had to do, for example in a tsunami,

we had to quickly get out of the classroom and run as fast as possible. So, we also have to keep our environment clean, such as not throwing rubbish carelessly."

Observations made by the researcher when teacher WZ as group B teacher opened the tsunami natural disaster mitigation lesson by communicating themes, themes of the universe, and sub-sub-themes of natural disasters in learning activities. From the results of observations, it shows that the material presented by the teacher in mitigation learning Tsunami natural disasters for early childhood can increase knowledge and make it easier for children to understand the content that will be studied in natural disaster mitigation learning. This is in line with the research results of Rusilowati, et al (2012) which explains that disaster mitigation learning which is integrated into material with natural themes and sub-themes makes it easier for children and broadens children's insight into the concept of disaster.



Figure 1. Teacher WZ communicates the theme of the universe and the sub-theme of natural disasters

Based on figure 1, it shows that teacher WZ is communicating the theme of the universe, sub-theme of natural disasters, and sub-sub-theme of tsunami. Teacher WZ starts the lesson by communicating the learning theme in a more detailed and clear manner. The teaching and learning process can help children to learn well and regularly. During the observation, the teacher began learning about tsunami natural disaster mitigation by conveying the learning theme so that children could understand what they were learning. At the beginning of the lesson, the WZ teacher asked the children the meaning of natural disasters, then explained the various types of natural disasters and then specialized in discussing the tsunami disaster.



Figure 2. Teacher WZ is Explaining Various Types of Natural Disasters

Figure 2 shows that Teacher WZ is opening children's insight regarding various types of disasters to children. The teacher asks students questions about what natural disasters they know about, after that they explain the various types of natural disasters and focus on discussing tsunamis. The next observation is that the teacher provides information regarding the causes and effects of fear and anxiety when facing an earthquake disaster, then provides motivation to children so that children can train themselves not to be anxious and afraid when facing a disaster.



Figure 3. WZ teacher is providing motivation to students

Based on Figure 3, it shows that the WZ teacher is providing motivation to students. Learning about tsunami natural disaster mitigation in early childhood education is very important, because Indonesia is a disaster-prone country. To minimize the negative impacts of tsunami natural disasters, children must be equipped with knowledge of tsunami disaster mitigation so they can protect themselves from an early age. This is in line with what was stated by Kousky (2016), where mitigation learning in early childhood is important, because disasters can have an impact on children such as physical, mental health and the continuity of their education. The length of time a child can accept a disaster that has occurred and be able to get back to life really depends on the surrounding environment. Mitigating learning activities can help children reduce the risk of disasters.

Submission of pre-tsunami disaster information

Implementation of tsunami natural disaster mitigation learning for early childhood, the delivery of material is divided into several parts, namely pre-disaster, during a disaster, and post-disaster. The teacher has carried out tsunami natural disaster mitigation learning activities which cover the situation at the beginning of the lesson. The lesson contains things that children need to prepare so they can protect themselves when a natural disaster occurs. This can be conveyed by the WZ teacher as follows:

"We usually convey the pre-disaster presentation when the children have finished reading the story about the tsunami, or after we have read the story and, more precisely, we make conclusions. When teacher WZ was telling about the tsunami, WZ explained what children should do before a disaster, and what the characteristics were, and so on. And then when we do the simulation, the most we can convey to the children is don't panic, and we as teachers must do that first with the children about melting so that the children can be calm, train the children not to be afraid. That's the most important thing we convey in this activity."

There are many things that need to be taught to students regarding pre-tsunami learning material. Teachers can deliver pre-disaster material as well and

as simply as possible so that children can easily understand it. The method of delivery can be by doing direct movement examples or by telling stories to make it more interesting and easy for students to understand. Observations were made by researchers when the teacher explained the characteristics of tsunamis with the pictures provided, then told students several ways to protect themselves from the threat of tsunamis by telling stories based on the pictures.



Figure 4. Teacher WZ tells about the tsunami through pictures

Figure 4 shows that teacher WZ is telling material about natural disasters through pictures of tsunamis. Based on this picture, it can be seen that the children can easily understand the content of the pre-disaster material presented by the teacher in front of the class. In addition, it is also hoped that children can reduce the risk of disasters when they know about the characteristics of disasters. Teacher WZ talks about how to protect themselves, and the smallest thing that children can do to save themselves from disaster is like looking for a higher place or a safer place.

Learning about tsunami natural disaster mitigation is very important to make it easy for children to understand because it is delivered correctly. By providing this lesson, children will become aware of the content of pre-disaster information on tsunami natural disaster mitigation and children will also know the first thing children must prepare when facing a disaster. Rudianto, (2015) in his research explains that the delivery of pre-disaster information must also be done appropriately, in this case through learning activities. Meanwhile, in Alfarabi's research, (2021) explains that the provision of disaster information is notified long before the disaster occurs or during the pre-disaster period. The delivery of information will become the basis for students' knowledge to prepare and adapt when a disaster occurs.

Delivery of information during disasters and simulations during tsunami disasters

Implementation in delivering material during a disaster can be carried out by teachers using various activities and methods. The teacher gives the impression that children can feel the natural disaster of the tsunami. The teacher provides information about mitigation during disasters in the middle of learning. The methods for delivering tsunami material that can be delivered by teachers include telling stories or carrying out simulations so that children can easily understand the material delivered. TeacherWZ can explain this as follows:

"For the delivery, we usually explain that if there is a tsunami we have to stay away from the water. And we continue to explain to the children that they can also go to a safer place or a high place so that the water cannot reach them. We have also made a short story out of this material on the children's worksheet so that the children can see for themselves and then ask questions and answers with the teacher. Then here we train the children to be calm so that later they don't panic when a tsunami disaster occurs. And we also convey this during and before the simulation or at the beginning of the teacher's story. Then we convey that if you feel afraid, you must be calm, you must be strong and you must not cry when facing something. disaster. So our main task as teachers is how children understand how to protect themselves or save themselves from a tsunami disaster. We are also here to explain slowly how to avoid sea water when it rises."

There are many things that teachers can teach students regarding learning materials when the tsunami disaster occurs. The teacher delivered material related to how to protect oneself using various activities such as telling stories or simulations so that children could easily understand it. After that, the teacher invites students to practice how to protect themselves from the tsunami natural disaster by carrying out simulations together, such as looking for a safer place when the tsunami natural disaster occurs.



Figure 5. Teacher WZ is Doing an Example of Saving Himself By Looking For A High Place

Based on Figure 5, it can be seen that Teacher WZ is carrying out an example of a self-rescue simulation activity by looking for a higher place. By using this simulation method children can enjoy the learning process, and make it easier for children to understand by providing this tsunami material, and can also train their preparedness. to protect himself from the threat of a tsunami disaster. This is in accordance with the guidelines of the National Disaster Management Agency (BNPB), (2008) which explains that providing mitigation information during a disaster can include, among other things, remaining calm, careful, not panicking, and remaining vigilant in protecting yourself. Learning activities using a simulation method with an effort to protect yourself by looking for a high/safe place that cannot be reached by water.

Delivery of post-disaster information and post-tsunami simulations

Disseminating post-disaster information can start by providing information about evacuation places. Teachers can give the impression as if children are in a tsunami disaster evacuation atmosphere using the simulation method. According

to Nana Sudjana (2000), simulation is a teaching method to explain something through actions or behavioral processes that are carried out as if they were in real situations. The simulation method is an effective way to help children understand information and improve disaster preparedness. Teacher WZ explains the delivery of post-disaster information.

"Usually the way we deliver it here is after the end of the lesson. Then I told the children that when it was safe and no more tsunamis would occur, the first thing to do was to calm down. And always remain careful because in case there was a fear that another tsunami would happen. After that, we had to check our condition again. If someone is injured, we must treat ourselves and the point is we must remain calm. By carrying out this simulation, it is to facilitate children's understanding and make learning more enjoyable."

Introduction of post-disaster information in the implementation of tsunami natural disaster mitigation learning carried out by teachers by providing material in accordance with the 2008 National Disaster Management Agency (BNPB) guidelines. Mitigation learning is delivered in simple language that is easy for students to understand. The teacher carries out a tsunami evacuation simulation activity to facilitate understanding and make learning fun. The tsunami disaster simulation activity was carried out well and orderly by the students. It appears that the students were able to rescue themselves when a tsunami occurred. This can be seen from the speed at which children receive the learning material delivered by the teacher. Carrying out training on how to save yourself when a disaster occurs is one of the things that can be done to increase preparedness in facing disasters, according to Nurjannah in Ristyani (2016).



Figure 6. WZ teacher and children carry out a simulation of natural disaster evacuation and prayer for personal safety

Based on Figure 6, it can be seen that the WZ teacher and the children are carrying out a natural disaster evacuation simulation and inviting the children to pray for their own safety. This simulation activity is carried out so that children can understand the importance of saving themselves when a disaster occurs. So that children can understand and enjoy the learning process, and increase their insight. about what to do during a post-disaster, WZ teachers carry out post-disaster simulation activities to protect themselves from the threat of a tsunami. Teacher WZ delivered some material related to post-disaster preparedness while carrying out simulation activities. This preparation consisted of bringing enough items, continuing to listen to directions, remaining calm, remaining alert, and not forgetting to pray to Allah SWT for safety and security.

Application of learning methods to mitigate natural tsunami disasters

Implementation of tsunami natural disaster mitigation learning can be done by using various methods such as storytelling, simulations, reading and coloring. Making the atmosphere more enjoyable with varied activities, teacher WZ explains as follows:

"For the tsunami, the method I use here is the simulation method, storytelling method, reading method and then the children do a worksheet and read a short story on the worksheet by coloring on the worksheet that has been given so that the children can understand the contents of the story."

Various methods are used in learning about tsunami natural disaster mitigation which can make the learning process more varied, including teachers using storytelling methods when delivering pre-disaster material, and using simulation methods when delivering disaster and post-disaster material. After that, the teacher demonstrated how to worksheet and then distributed it to the students so they could read and color. Students who can read can read the short story listed on the worksheet. Then the students color a picture of the situation of a person saving himself from the threat of a tsunami disaster. After the students complete the worksheet, the teacher carries out a disaster simulation method together in the middle of the lesson. And the teacher also uses a storytelling method that tells pictures about the characteristics of a tsunami. This is supported by research by Isna (2017) which shows that students are able to express thoughts, feelings and various things that cannot be expressed explicitly by applying learning methods. In contrast, Dika's (2017) research explains that by varying the learning process and teaching strategies used with students, teachers can help children develop awareness.



Figure 7. Coloring the tsunami picture on the worksheet



Figure 8. Coloring a picture of a tsunami on the worksheet

Figure 8 shows that the children are coloring pictures of the tsunami disaster on a worksheet. In this coloring picture activity, the children are very happy and enjoy the process of coloring pictures. Figure 4.9 is the result of the picture coloring activity carried out by the children. Tsunami natural disaster mitigation learning activities in the application of learning methods are very important because they can help open children's knowledge when a disaster occurs.

WZ teachers carry out several activities and methods in implementing earthquake natural disaster mitigation learning, including providing storytelling, simulation, reading and coloring methods. These various methods and activities make it easier for children to learn about tsunami natural disaster mitigation. The success of a learning process can be measured by how many methods can be used in teaching. According to Dimiyati and Mudjiono (1996), learning gives children the opportunity to collaborate with others on certain projects while also receiving support from teachers. According to Arends (1997), learning methods have various advantages for teachers and students in schools. Teachers are expected to be able to use learning methods, and the more learning methods a teacher masters and accesses, the easier it will be to improve the quality of the learning process.

Use of tsunami natural disaster mitigation learning media

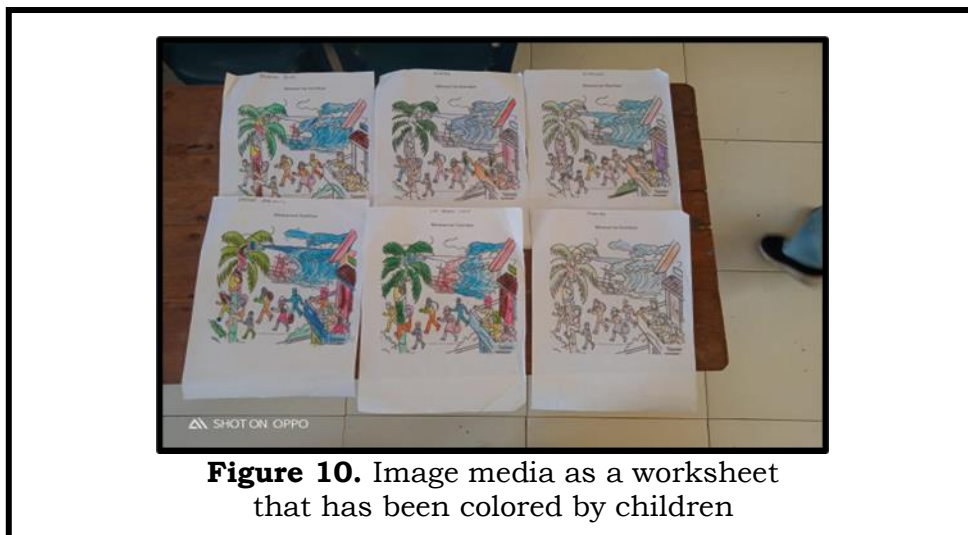
The use of tsunami natural disaster mitigation learning media at Harapan Jaya Tira Kindergarten, Sampolawa District, the media used is picture media to explain the tsunami situation. Apart from being used by teachers to tell stories, the picture media is also used as a worksheet for children so they can read the short stories listed and can color the picture. As explained by teacher WZ, as follows:

"For simulation activities here we use illustrated worksheets, then we also tell stories using those worksheets and at the same time so that children can read and color them so that what they read really describes the real situation."

The observation data that the researchers obtained was that the WZ teacher used picture media to tell stories and used picture media as worksheets for students to read and color. designed by the teacher himself. The use of learning media can encourage children's interest in learning and make it easier to convey material to children. According to Otoluwa, et al (2019), their research explains that learning media encourages children to be more communicative, active and can increase their potential in the learning process. Meanwhile, Nasir (2020) explained that the use of media is also expected to make it easier to convey content to students and improve learning standards.



Figure 9. Teacher WZ tells a story using colorless picture media



Based on picture 9, it shows that teacher WZ is telling a story using colorless picture media. Meanwhile, picture 10 shows that the picture media is a worksheet that has been colored by the child. The use of image media is important because it can arouse children's interest and experience in the learning process. The learning media used by WZ teachers has two functions, firstly, the attention function means as a medium for conveying story messages to children through pictorial stories so that they can help them remember what the teacher has conveyed to children about mitigating the tsunami natural disaster. Meanwhile, the second function is the affective function, which means it is a worksheet, where children will learn using worksheets that have pictorial text, so that children can imagine what it would be like when the tsunami disaster occurred. Based on the results of the documentation above, the children appear to be concentrating and interested in what the teacher is saying in front of the class. According to Pratama (2022), the use of learning media has an impact on learning activities that are more enjoyable, not boring, and the material presented is easy to understand, thereby helping children gain learning experience through the process of observing, listening and experiencing for themselves what children learn in class.

4. Conclusion

From the research results, it can be concluded based on the findings and discussion that the implementation of natural disaster mitigation learning material for tsunami group B at Harapan Jaya Tira Kindergarten, Sampolawa District, South Buton Regency is similar to the natural disaster mitigation learning planning for group B in Harapan Jaya. Tira Kindergarten, Sampolawa District, South Buton Regency by designing tsunami disaster mitigation learning into the curriculum theme. This is seen as a way for children to learn about tsunamis, provide motivation to children regarding tsunamis, be able to do examples/movements, tell stories about tsunamis, simulate activities, and use simulation methods when delivering lessons. Post-disaster and post-disaster simulation, application of tsunami natural disaster mitigation learning methods using simulation methods, and storytelling methods, use of tsunami natural disaster mitigation learning media using image media.

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