



Axiological Study: Integrating the Cultural Values of *Mo Hungguli* in Disaster Mitigation Learning at Kindergartens in Telaga District, Gorontalo Regency

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Authors' contributions

This work was carried out in collaboration between both authors. Both authors read and approved the final manuscript.

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ABSTRACT

Disaster mitigation is a method or practice used to prevent or address a disaster. In Gorontalo, natural disasters such as floods and landslides frequently occur. The aim of this research is to provide insights into the practical value of a culture in instilling disaster mitigation knowledge to kindergarten students through an axiological study that focuses on the study of values. This article is written using a qualitative approach, with a literature review to explore the integration of Mo Hungguli into disaster mitigation education for kindergarten children. Disaster mitigation in kindergartens is rarely implemented, even though the knowledge to prevent and address disasters

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should be instilled from an early age. Good disaster mitigation is one that can be passed down through generations via local culture, providing practical knowledge that can be used during a disaster. One of the cultural traditions from Gorontalo that will be used is Mo Hungguli. Mo Hungguli is a storytelling culture, which is very suitable for integrating with disaster mitigation, as it aligns with the essence of practical value in the dissemination of knowledge to young children.

Keywords: Mitigation; disaster; culture; Mo Hungguli; axiology.

1. INTRODUCTION

Geologically, Indonesia is an archipelagic country prone to natural disasters due to its highly complex geographical position. It lies on the Pacific Ring of Fire, where it is traversed by major tectonic plates such as the Eurasian Plate, the Indo-Australian Plate, and the Pacific Plate. The collisions and friction between these plates can lead to earthquakes. Indonesia is also vulnerable to tsunamis, especially when earthquakes occur beneath the ocean floor. Additionally, Indonesia's tropical climate results in high rainfall, particularly during the rainy season. Heavy rainfall can trigger disasters such as floods, flash floods, and soil erosion (Desderius et al., 2024).

Natural disasters often have significant physical and mental impacts, particularly on vulnerable groups such as the elderly and children. These groups have physical and psychological limitations that make them more susceptible to emergency conditions caused by disasters. Physically, disasters can result in injuries, loss of shelter, or difficulties in accessing basic needs such as food and clean water. Mentally, the stress caused by the loss of loved ones, environmental destruction, or sudden life changes can trigger trauma, anxiety, and depression, especially in children who may lack the capacity to fully comprehend such situations. To address these challenges, efforts in disaster management are essential, particularly in the form of disaster mitigation.

Disaster mitigation for early childhood is crucial, as disasters can significantly affect children, including their physical health, mental well-being, and educational continuity. The length of time it takes for a child to process and recover from a disaster heavily depends on their surroundings, including family, community, and the environment where they live. Therefore, it is essential to improve disaster mitigation policies and coping strategies for children (Kousky, 2016; Dewi & Anggarasari, 2020).

In addition to providing knowledge about disasters and how to manage them, disaster

mitigation education should include self-protection skills training and mental resilience exercises to minimize the psychological impact of disasters. Activities like these can also encourage active participation among young children, fostering dimensions of the Pancasila Student Profile, including independence, critical thinking, and cooperation.

Disaster mitigation education can be instilled from an early age using local Gorontalo culture, specifically *Mohungguli*. This cultural tradition has existed since the time of the Gorontalo ancestors. In the Gorontalo language dictionary compiled by Kartin Lihawa et al., the term *Mohungguli motihuloo* means "expressing while sitting together." This aligns with the typical Gorontalo community habit of gathering and discussing topics. Several articles also highlight that *Mohungguli* is a method of instilling noble values in the younger generation and building the nation's character. As a result, in recent years, *Mohungguli* competitions have often been held, involving students from elementary to secondary schools.

In this context, disaster mitigation education integrated with *Mohungguli* culture, when viewed from an axiological perspective, can embody aesthetic, practical, and value-based meanings. Axiology, as a branch of philosophy, focuses on values, including moral, aesthetic, and practical values. The term "axiology" originates from the Greek words *axios*, meaning "worthy" or "valuable," and *logos*, meaning "the study of" or "science of values." Axiology thus serves as a branch of philosophy dedicated to the study of values, exploring their significance and applications in various aspects of life.

2. THEORETICAL REVIEW

2.1 Definition of Axiology

Philosophical studies are often abstract, focusing on sharpening reasoning, while social life consists of factual realities experienced and lived by society (Nurhayati et al, 2023). This contrast

has at times created two divergent modes of thought, giving the impression that philosophical studies and social sciences operate within separate paradigms. Thus, this discussion seeks to bridge abstract philosophical studies, particularly those concerning axiology, with concrete social studies that are directly linked to real-life contexts, thereby fostering mutual reinforcement (Nasir, 2021).

Axiology is the study of values and life principles from the perspective of philosophy. It can also be defined as the science that seeks to understand values and the principles of human life within the framework of axiological philosophy itself (Santi et al., 2023).

Axiology, as a branch of the philosophy of science, examines how humans utilize knowledge. The primary aim of axiology is to uncover the essence and benefits contained within a body of knowledge. As a discipline, axiology investigates values. The term "axiology" is derived from the Greek words *axios*, meaning "value" or "something valuable," and *logos*, meaning "reason" or "theory" (Nasir, 2021).

Fundamentally, axiology has a specific meaning closely related to knowledge. Referring to the educational philosophy of Ki Hajar Dewantara, education is the guidance that enables individuals to become the best versions of themselves based on their inherent potential and in harmony with the natural and contemporary environment. Knowledge and education are inseparable, making it crucial to guide individuals using knowledge that is rooted in local values while also addressing the demands of modern times.

Education must help individuals build a new worldview based on global axiological values. Such a new perspective should form the foundation for educational values that acknowledge the necessity of radical changes in ethics and the importance of progressive and artificial civilization. This does not mean abandoning all existing values or seeking "higher" ones, but rather adopting a minimal set of values and principles essential for overall survival and unrestricted development (Pieshev et al., 2022).

The most basic level of formal education is kindergarten. Imparting knowledge at an early age makes it easier to guide individuals toward a better future. One of the key areas of focus is disaster mitigation. Given recent predictions of imminent natural disasters, disaster mitigation

education should already be implemented in kindergartens.

2.2 Disaster Mitigation for Early Childhood

A disaster is an event or series of events that threaten and disrupt the lives and livelihoods of communities, caused by natural and/or human factors, resulting in casualties, environmental damage, property loss, and psychological impact (Dewi & Anggarasari, 2020).

Disaster mitigation refers to a series of efforts aimed at reducing disaster risks through both physical development and raising awareness as well as improving the ability to face disaster threats (Article 1, Clause 6 of Government Regulation No. 21 of 2008 on Disaster Management). Mitigation encompasses a range of efforts, including physical development, awareness, and capacity-building to reduce disaster risks (Law No. 24 of 2007, Chapter I, General Provisions, Article 1, Clause 9; Government Regulation No. 21 of 2008, Chapter I, General Provisions, Article 1, Clause 6). As stated in Article 44(c), mitigation is carried out to reduce disaster risks for communities residing in disaster-prone areas (Law No. 24 of 2007, Article 47, Clause 1).

The process of raising awareness and building disaster preparedness skills must be disseminated to all community members, from children to the elderly. Implementing disaster mitigation is essential, as it can significantly reduce disaster risks. For early childhood, it is particularly important to provide disaster mitigation education to ensure they are better prepared both physically and mentally to face disasters.

Mitigation is not only about raising awareness or sharing knowledge about disasters. It also involves training individuals in the skills and abilities necessary to handle disaster situations. Such efforts can help minimize the psychological impact of disasters, as children will have been mentally trained and prepared from an early age. According to OASIS (2015), disaster mitigation programs for early childhood should be well-structured to ensure that the understanding and skills gained can be retained for a long time (Dewi & Anggarasari, 2020).

Disaster mitigation education for early childhood is essential because it provides positive impacts on children. The goal is to help children

understand and absorb knowledge about the types of disasters and how to manage them from an early age, making it a priority in efforts to minimize disaster risks. Disaster mitigation education should encompass all stages, from preventive measures before a disaster occurs to post-disaster response, fostering readiness and preparedness in children.

2.3 The *Mo Hungguli* Culture

The educational process that includes elements of character building is a real effort to pass down and develop the culture and character of the nation to the younger generation. This educational process will ultimately improve the quality of society in the future (Kirom, 2018).

The *Mo Hungguli* culture is highly suitable for disaster mitigation education, especially for young children. Children enjoy storytelling activities, as repeated advice delivered through stories is easily retained in their memory and lasts for a long time.

Disaster mitigation can be packaged into storytelling-based learning, or in Gorontalo's local language, referred to as *Mo Hungguli*. One of the distinctive characteristics of the Gorontalo community is their habit of gathering with relatives, neighbors, and even within larger community groups to engage in conversations. This makes *Mo Hungguli* an innovative approach for teaching disaster mitigation.

The integration of local culture into disaster mitigation efforts has been widely applied in various disaster-prone regions. Examples include the application of *SMONG* in Simeulue District (Aceh), the communities around Mount Bromo, the traditional village of Neglasari in Tasikmalaya, and others. Such local cultures can take the form of traditional songs, architectural designs, village layouts, and more. These traditions are passed down through generations, drawing on the collective experience of past communities.

Examining local practices such as *SMONG* used by the Simeulue community demonstrates how effective local culture can be in saving lives during disasters. The *SMONG* story played a crucial role in protecting the Simeuluean people during the 2004 tsunami. Numerous studies have highlighted the success of such cultural practices, offering valuable insights and conclusions about their effectiveness in disaster risk reduction.

The first finding showed the narrative consistency of the interviewees when they described their experiences of the 2004 earthquake and tsunami and their knowledge of the 1907 tsunami. The narrative described the interrelation between knowledge of the 1907 tsunami and the process of defining and acting. This is an essential element to access the way that the community defined, recognized, and interpreted risks, and communicated knowledge to community members.(Rahman et al., 2018).

The *Smong* story has been recognized as the indigenous knowledge (IK) of the Simeuluean people, which successfully protected them from the 2004 Indian Ocean tsunami. The success of the *Smong* story in safeguarding the community from the tsunami has attracted international attention (Rahman et al., 2018).

If other regions can carry out disaster mitigation by integrating local culture, then the Gorontalo region, which has the *Mohungguli* culture, can also disseminate disaster mitigation orally to the community. Therefore, its application can begin by formalizing the integration of *Mohungguli* culture into disaster mitigation education in kindergartens.

3. METHODOLOGY

This study uses a qualitative methodological approach, which focuses on an in-depth exploration of the meaning and phenomena related to the research topic. The data collection technique used is a literature study, which involves gathering various literatures and reading materials relevant to the theme of the study. In this case, the research focuses on the concept of axiology, specifically the integration of *Mo Hungguli* culture in disaster mitigation education.

The collected literature sources encompass various types, including academic books, journal articles, the Gorontalo Language Dictionary, and other relevant reading materials. The data collection process is carried out systematically by selecting literature that is highly relevant and credible to support the research analysis. Once the data has been gathered, the next step is to perform a deductive analysis. This deductive analysis aims to link theoretical concepts found in the literature with the context of implementing *Mo Hungguli* culture in disaster mitigation, thus providing a comprehensive understanding of the topic being studied.

4. RESULTS AND DISCUSSION

Disaster mitigation education is extremely valuable in training children's preparedness skills to face disasters. This education can be implemented by providing knowledge both before a disaster occurs and in terms of response after a disaster (Suleman et al, 2022; Nurhaedah et al, 2023).

These activities can be included in the Kindergarten Education Curriculum under the topic of Disaster Mitigation, packaged through *Mo Hungguli* culture or storytelling. This form of activity represents the Basic Literacy and STEAM elements in the Merdeka Curriculum. Storytelling is highly beneficial for the development of young children. It turns out that many ethnic groups across the country recognize the power of stories (Shafieyan et al, 2017; Beck & Neil, 2021). The tradition of storytelling through folktales is found in almost every culture around the world. This fact, along with the effectiveness of storytelling in captivating and influencing listeners, highlights its benefits in three key areas: 1) memory, 2) recovery, and 3) character building (Nasution & Tambunan, 2021; Ke Lomi, Aleksius & Sahan, 2024). Given these benefits, integrating disaster mitigation education through *Mohungguli* culture is expected to have a significant impact on the community's knowledge of how to face disasters.

From an axiological perspective, the benefits of disaster mitigation education integrated with *Mo Hungguli* culture can ease the delivery of material to young children in alignment with their natural development. The expected impacts of integrating *Mo Hungguli* cultural values into disaster mitigation education are as follows:

1. Understanding of Disaster Mitigation for Early Childhood

Knowledge delivery through *Mo Hungguli* culture can be achieved by storytelling activities about the geographical location of Gorontalo Province, common disasters, and historical disaster stories. It can also be developed further by creating original stories that feature disaster hero characters. This storytelling method can be expanded into role-playing activities based on the stories shared with the children.

2. Behavioral Change in Facing Disasters or Preparedness

Through the disaster mitigation understanding instilled in young children via *Mo Hungguli*, it is expected that there

will be behavioral changes in how children face disasters. Their disaster preparedness skills and abilities will develop optimally.

In addition to these impacts, it is hoped that disaster mitigation education integrated with *Mo Hungguli* culture will build community awareness about disaster response. Therefore, it is crucial to include this in the early childhood education curriculum so it can spread throughout the community.

Disaster mitigation learning integrated with the *Mo Hungguli* culture is also highly relevant to the Merdeka Curriculum. In fact, this can shape the Profile of Pancasila Students. According to the Indonesian Ministry of Education and Culture Regulation No. 22 of 2020 on the Guidelines for the Profile of Pancasila Students, there are six dimensions that students should possess, namely: having noble character, embracing global diversity, being independent, fostering collaboration, thinking critically, and being creative, all of which can be achieved through these learning activities. However, in this case, the focus is on three dimensions: Independence, Critical Thinking, and Cooperation (Seddighi et al., 2020).

- **Independence** is reflected in how students can save themselves during a disaster and take effective steps to ensure their safety.
- **Critical Thinking** is seen in how students can make quick and accurate decisions during a disaster.
- **Cooperation** is demonstrated by how students help others during a disaster.

Thus, the integration of *Mo Hungguli* culture can help shape students' attitudes and behaviors based on local cultural values in the context of disaster preparedness, while also forming students who align with the Pancasila Student Profile.

1. Instilling the Values of Togetherness and Cooperation

Mo Hungguli, as a storytelling tradition during gatherings, often carries messages of cooperation and solidarity. In disaster mitigation, the value of togetherness is crucial to instill. Through *Mo Hungguli* stories, students are taught that when disasters occur, cooperation between individuals and communities is essential. Stories that depict how communities work

together during crises can motivate children to understand the importance of cooperation in facing disasters.

2. Building Moral Awareness

Disaster mitigation education integrated with *Mo Hungguli* helps shape moral awareness in children. The stories within *Mo Hungguli* convey ethical messages, such as personal and social responsibility in ensuring the safety of oneself and others. For example, children can learn that protecting the environment from disaster risks, such as floods or landslides, is part of their moral responsibility.

3. Forming Emergency Response Attitudes Based on Local Values

Mo Hungguli can be used to share stories about the community's experiences in facing past disasters. These stories can teach lessons on resilience, courage, and how to behave during emergency situations. Local wisdom values, such as respect for nature, bravery in facing challenges, and the importance of preparedness, can be instilled through relevant stories.

4. Values of Sustainability and Environmental Care

In the context of disaster mitigation, *Mo Hungguli* stories can be used to instill values of environmental care. Many natural disasters occur as a result of environmental degradation, so through the stories in *Mo Hungguli*, children can learn about the importance of protecting nature and their environment. This includes messages about not littering, conserving forests, and acting wisely in managing natural resources.

5. Conveying Religious and Spiritual Values

In Gorontalo culture, *Mo Hungguli* stories often carry religious values. This can serve as a means to teach that disaster preparedness involves not only physical readiness but also mental and spiritual strength. An attitude of surrender to God, prayer, and strengthening spiritual bonds can become part of the meaningful disaster mitigation narrative, providing inner strength when facing adversity.

Thus, the integration of *Mo Hungguli* in disaster mitigation education, from an axiological perspective, not only provides knowledge about the technical steps to face disasters but also shapes students' character by embedding ethical

and moral local wisdom values for facing life's challenges.

From an aesthetic perspective, disaster mitigation stories presented through *Mo Hungguli* can be crafted by emphasizing the beauty of Gorontalo's local culture. The following steps can be taken:

1. **Using the Beauty of Language:** Select words in the Gorontalo language that have attractive expressions, metaphors, diction, or rhythm. Simple figures of speech or analogies can also be used to convey messages effectively to young children.
2. **Creating an Engaging Plot:** Craft a story with an interesting plot that is not too long, so it is easy for young children to remember. The story should maintain good harmony and structure when delivered.
3. **Incorporating Expressions in Storytelling:** Storytelling about disaster mitigation can be accompanied by expressions while telling the story. These expressions can be adjusted to fit the story that has been prepared beforehand.
4. **Using Symbols or Characters:** The use of symbols or characters in the story can add a unique appeal to *Mo Hungguli*.
5. **Incorporating Moral Beauty, Culture, and Social Interaction:** The moral beauty and cultural values, as well as social interactions within a community, can be included in *Mo Hungguli*. The stories can reflect everyday life values that occur within a community.
By emphasizing these elements, the storytelling process can become a powerful tool for teaching disaster mitigation while also preserving and promoting local cultural beauty.

5. CONCLUSION

Disaster mitigation education for early childhood, integrated with the values of *Mo Hungguli* culture, makes a significant contribution across various aspects of life. From an axiological perspective, this integration has positive impacts in practical, aesthetic, and moral domains. The practical impact is seen in the increased understanding of disasters by young children, accompanied by behavioral changes reflected in their improved disaster preparedness skills. In the aesthetic domain, the values of *Mo Hungguli* offer a more meaningful approach to learning. In the moral domain, *Mo Hungguli* helps build

collective awareness within the community to face disasters through value-based education.

The integration of local cultural values also contributes to the development of a more adaptive and contextual curriculum. By incorporating the local wisdom of *Mo Hungguli* into disaster mitigation education, this effort not only supports individual preparedness but also strengthens community awareness and solidarity in facing disaster challenges. This approach reflects modern educational methods that combine local wisdom with global guidance, making it relevant for application in today's educational context.

DISCLAIMER (ARTIFICIAL INTELLIGENCE)

Author(s) hereby declare that NO generative AI technologies such as Large Language Models (ChatGPT, COPILOT, etc.) and text-to-image generators have been used during the writing or editing of this manuscript.

COMPETING INTERESTS

Authors have declared that no competing interests exist.

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