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THE DEVELOPMENT OF DISASTER HISTORY LEARNING MATERIALS IN SENIOR HIGH SCHOOL HISTORY EDUCATION BASED ON FINDINGS FROM THE LIYANGAN ARCHAEOLOGICAL SITE

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ABSTRAK

Pembahasan sejarah kebencanaan dalam pembelajaran sejarah di tingkat Sekolah Menengah Atas masih relatif terbatas, meskipun Indonesia merupakan wilayah yang memiliki tingkat kerentanan bencana. Penelitian ini bertujuan mengkaji pengembangan materi sejarah kebencanaan dalam pembelajaran sejarah berdasarkan temuan arkeologis Situs Liyangan serta relevansinya dengan pembelajaran sejarah di SMA. Penelitian ini menggunakan pendekatan kualitatif. Pengumpulan data dilakukan melalui studi pustaka dengan menelaah berbagai sumber literatur seperti buku akademik, artikel jurnal, serta dokumen pendidikan yang berkaitan dengan sejarah kebencanaan dan pembelajaran sejarah. Analisis data dilakukan secara kualitatif dengan pendekatan interpretatif untuk memahami keterkaitan antara temuan arkeologis dan pengembangan materi pembelajaran sejarah. Hasil penelitian menunjukkan temuan arkeologis Situs Liyangan memberikan bukti mengenai kehidupan masyarakat masa lalu serta dampak bencana vulkanik yang menimbun kawasan permukiman tersebut. Temuan tersebut memiliki potensi untuk dikembangkan sebagai materi sejarah kebencanaan yang kontekstual. Integrasi materi ini dalam pembelajaran sejarah dapat memperkaya pemahaman siswa mengenai hubungan antara manusia dan lingkungan dalam perspektif historis serta meningkatkan kesadaran terhadap pentingnya mitigasi bencana.

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1. INTRODUCTION

History education at the Senior High School (SMA) level has generally focused on political dynamics, national struggles, and social transformations that have shaped the trajectory of the nation. Such materials are indeed important for developing a chronological understanding of the historical development of Indonesian society (Amalia & Gunadi, 2025). However, historical aspects related to the relationship between humans and the environment, particularly disaster history, have not received sufficient attention in school history instruction. In fact, Indonesia is geographically located in a region with a high level of disaster vulnerability, including volcanic eruptions, earthquakes, and hydrometeorological hazards (Silalahi, 2025). This condition indicates that an understanding of disaster history should become an integral component of history education. Through the study of disaster history, students can gain insights into how past societies confronted and adapted to various natural events. Such knowledge is not only informative but also provides a reflective framework for understanding contemporary environmental challenges (Kaseng, 2024). Therefore, the development of disaster history materials in history learning has become increasingly relevant.

The limited discussion of disaster history in history subjects is closely related to the scarcity of teaching materials that specifically address this theme (Gokmenoglu et al., 2023). Most history textbooks used in schools still position natural disasters as peripheral events rather than as central topics of analysis. As a consequence, students tend to perceive disasters merely as isolated natural phenomena without understanding their historical context (Bertoli et al., 2024). From a historical perspective, however, disasters often have significant impacts on social, economic, and cultural transformations within societies (Rajabi et al., 2022). The lack of integration between historical studies and environmental phenomena makes history learning less contextual to Indonesia's geographical realities. This situation also contributes to students' limited understanding of the historical relationship between humans and their environment (Hendra & Pambudi, 2025). Therefore, efforts are needed to expand the scope of historical materials by incorporating disaster history in a more systematic manner. Such an approach is expected to enrich students' perspectives in understanding past events.

One approach to developing disaster history materials is through the utilization of archaeological sources as a foundation for learning (Li, 2024). Archaeological data not only provide information about past human life but also reveal environmental dynamics that influenced the sustainability of settlements (Demján et al., 2022). Through the analysis of architectural remains, artifacts, and soil stratigraphy, researchers can reconstruct various natural events that occurred in the past. These findings are valuable for understanding how communities experienced change as a result of natural disasters (Westra et al., 2022). Archaeological research therefore offers a rich source of knowledge for the development of disaster history materials (Bodén, 2023). The integration of archaeological data into history education can also create a more evidence-based learning experience. This approach enables students to understand historical narratives through tangible findings that can be scientifically examined.

In this context, one source with significant potential to be developed as learning material is the Liyangan Site. This site represents an ancient settlement complex that was buried by volcanic materials due to past eruptions of Mount Sindoro. Various archaeological discoveries at this location reveal traces of the lives of communities that once inhabited the area. Artifacts such as household utensils, structural remains of buildings, and evidence of agricultural activities provide insights into the daily life of the community during that period (Tanudirjo et al., 2019). The fact that the site was buried by volcanic deposits also indicates that the area experienced a significant natural disaster in the past. This characteristic makes the site an important source for understanding disaster history within the context of past human life. By utilizing information derived from this site, history learning can present concrete examples of how disasters affected human societies. This provides opportunities to develop more contextual learning materials.

Despite its considerable potential, academic studies on the Liyangan Site have largely been dominated by archaeological research. Scholars have primarily focused on aspects such as chronology, settlement patterns, and the characteristics of artifacts discovered at the site. In addition, several studies have explored the potential of the site as a cultural tourism destination that could support regional economic development. These approaches undoubtedly contribute to expanding the understanding of the archaeological and economic value of the site. Nevertheless, the utilization of these research findings within the context of education, particularly in school history learning, remains relatively limited. In fact, the archaeological discoveries at the site hold significant potential to serve as learning resources. The lack of integration between archaeological research and educational material development has resulted in the underutilization of the site's educational value related to disaster history. Therefore, an approach that connects scientific research with classroom learning practices is necessary.

The development of disaster history materials based on findings from the Liyangan Site has the potential to provide a new perspective in history learning at the Senior High School level. Such materials enable students to understand that natural disasters are part of historical processes that influence the dynamics of human life (Li et al., 2022). Through this approach, students can learn how past communities established settlements, managed natural resources, and confronted disaster risks arising from their environment (Smith et al., 2023). This knowledge offers insights into the various forms of adaptation undertaken by communities in response to environmental changes. Furthermore, learning that is grounded in real historical evidence can enhance students' interest in the study of history. When students are exposed to tangible evidence from the past, they tend to develop a deeper understanding of historical concepts (Nokes, 2022). Consequently, the development of such materials can contribute to creating more meaningful learning experiences.

The integration of disaster history materials into history education also has strategic value in fostering disaster mitigation awareness among younger generations (Muryani & Ni'matussyahara, 2024). By understanding the experiences of past societies, students can recognize that disasters are not entirely new phenomena in human history (Sadeghloo & Mikhak, 2022). Historical records show that various communities have faced similar events in different ways depending on their social and environmental conditions (Kamyab et al., 2023). Such learning experiences can help students appreciate the importance of preparedness in dealing with disaster risks (Cvetković et al., 2024). Moreover, historical understanding of disasters can encourage students to develop greater environmental awareness (Breen et al., 2023). This awareness is particularly important for societies living in disaster-prone regions such as Indonesia. Therefore, the development of disaster history materials holds not only academic value but also broader educational significance.

In classroom practice, disaster history materials based on archaeological sites can be implemented through various learning strategies (Li, 2024). Teachers may utilize visual resources such as documentation of archaeological findings, reconstructions of ancient settlements, and site location maps as instructional media (Miller et al., 2023). Students can also be encouraged to analyze historical sources and discuss the impacts of disasters on past societies. Such approaches can support the development of students' critical and analytical thinking skills. Learning activities may also be combined with project-based learning methods that encourage students to explore environmental history within their own regions (Pan et al., 2023). Through these strategies, history learning becomes more active and participatory rather than merely passive knowledge acquisition. This approach can enhance students' engagement in understanding historical materials.

The utilization of findings from the Liyangan Site in developing learning materials can also enrich the study of local history within history education. So far, history teaching in schools has often emphasized national events that are general in nature (Ruhushandy, 2025). As a result, students are less familiar with historical developments related to the geographical and cultural environments surrounding them (Sudarto et al., 2025). By integrating findings from this site, students can gain a more concrete understanding of historical dynamics that occurred in the Indonesian archipelago. This approach also helps students recognize that history does not only unfold in centers of political power but also in the everyday lives of local communities. Moreover, the study of local history can strengthen students' sense of identity and appreciation for cultural heritage (Rahma, 2024). The use of archaeological sites in history education therefore plays an important role in broadening perspectives in historical learning.

The development of disaster history materials in Senior High School history subjects represents an important step forward. Utilizing findings from the Liyangan Site can provide a strong empirical basis for constructing learning materials that are more contextual and evidence-based. Furthermore, integrating archaeological research with history education can expand the societal benefits of scientific research. Through this approach, history learning not only serves to understand the past but also to build awareness of contemporary environmental challenges. Disaster history materials can help students recognize the connections between past events and the conditions they face today. Ultimately, the development of such materials is expected to enhance the quality of history education in schools. History learning can thus contribute to shaping a generation that possesses both historical awareness and preparedness in facing disaster risks.

2. METHODOLOGY

The research method employed in this study is a qualitative approach. This approach was chosen because the research aims to understand and examine in depth the development of disaster history materials in history learning at the Senior High School (SMA) level based on archaeological findings from the Liyangan Site. Qualitative research allows the researcher to interpret various sources of knowledge in a comprehensive and contextual manner (Lim, 2025). Through this approach, the researcher can explore the relationship between archaeological research findings, studies of disaster history, and their relevance to history learning in schools. This study not only presents available data but also analyzes the interconnections among concepts that support the development of disaster history materials. The qualitative approach is therefore considered appropriate for generating a deeper understanding of the potential utilization of archaeological findings as learning resources in history education.

The data collection technique used in this research is a literature study. The literature review was conducted by examining various written sources relevant to the research topic (Galvan & Galvan, 2024). These sources include academic books, scientific journal articles, archaeological research reports, curriculum documents, and publications discussing history education and disaster studies. Through the literature search process, the researcher gathered information regarding the concept of disaster history, the characteristics of archaeological findings at the Liyangan Site, and relevant approaches to history learning at the Senior High School level. The literature review also served to understand the development of previous studies related to the site. By utilizing various sources of literature, the researcher obtained a more comprehensive understanding of the potential integration of archaeological findings into history learning materials. This technique enables systematic data collection from a wide range of credible references. Furthermore, the literature review assists the researcher in constructing the conceptual framework of the study.

The data collection process was conducted through several stages. The first stage involved the identification and selection of literature sources that were relevant to the research topic. At this stage, the researcher examined various scientific publications discussing the archaeology of the Liyangan Site, disaster history, and the development of history learning materials. The second stage involved the classification of sources based on thematic categories, such as archaeological studies, environmental history studies, and history education studies. This categorization was carried out to facilitate the analysis of relationships among the various concepts employed in the research. The next stage involved recording and organizing the data obtained from the literature. Information considered relevant was systematically arranged to support the research analysis. Through these stages, the data obtained from the literature study could be effectively utilized in the writing and analytical processes.

The data analysis technique employed in this study is qualitative analysis using an interpretative approach. The data collected from various literature sources were analyzed through critical reading, identification of key concepts, and the examination of relationships among findings relevant to the research objectives. The analysis process was conducted gradually by interpreting information contained in the literature to identify connections between archaeological studies, disaster history, and history learning in schools. The researcher also carried out a synthesis of various ideas identified in the literature to produce a more comprehensive understanding. This analysis aims to formulate a conceptual framework for the development of disaster history materials that can be implemented in history learning at the Senior High School level. Through this approach, the research findings are expected to provide a clear overview of the potential use of archaeological discoveries as educational resources. The results of the analysis serve as the basis for developing recommendations for more contextual and relevant history learning materials suited to the Indonesian context.

3. RESULTS AND DISCUSSION

The discussion section of this article examines the development of disaster history materials in history learning at the Senior High School (SMA) level by utilizing archaeological findings from the Liyangan Site as a learning resource. These archaeological findings provide information about the lives of past communities while also recording natural disaster events that influenced the dynamics of settlement patterns. Therefore, the use of archaeological data is important in presenting history learning materials that are more contextual and evidence-based. To facilitate the analysis, this discussion is divided into two main sections: first, an examination of the relevance of disaster history materials derived from the findings of the Liyangan Site in relation to the history curriculum at the Senior High School level; and second, the development of disaster history materials that can be integrated into the process of history learning in schools. The explanation of these discussions is presented as follows.

3.1. The Relevance of Disaster History Materials Based on the Findings of the Liyangan Site to the Senior High School History Curriculum

The discussion on the development of disaster history materials in history learning at the Senior High School level should begin by examining their relationship with the existing curriculum. Within the structure of the history curriculum at the Senior High School level, several topics address the development of Indonesian society during the Hindu–Buddhist kingdoms. These topics constitute an important component for understanding the social, political, and cultural dynamics during the early formation of civilization in the Indonesian archipelago. According to the scope of the history subject outlined in the national education policy issued by the Ministry of Primary and Secondary Education of the Republic of Indonesia in 2025, Senior High School students are expected to study the development of Hindu–Buddhist kingdoms in Indonesia (Peraturan Menteri Pendidikan Dasar dan Menengah Republik Indonesia Nomor 12 Tahun 2025 Tentang Standar Isi Pada Pendidikan Anak Usia Dini, Jenjang Pendidikan Dasar, dan Jenjang Pendidikan Menengah, 2025). The material includes discussions on governmental structures, belief systems, economic life, and archaeological remains associated with these kingdoms. In this context, archaeological sites play an important role as learning resources that can enrich students' understanding. The utilization of archaeological sites as sources of instructional material therefore represents a relevant step in connecting the curriculum with tangible historical evidence.

One archaeological site that has a close connection with the topic of Hindu–Buddhist kingdoms is the Liyangan Site. This site is an ancient settlement complex believed to have developed during the period of the Mataram Kuno Kingdom. Archaeological discoveries at this location reveal structural remains of buildings, religious artifacts, and various tools used in the daily lives of the community (Riyanto, 2017). These findings indicate that the area once formed part of a network of settlements that developed during the Hindu–Buddhist kingdoms in Java. The existence of this site provides insight into the life of communities that lived under the influence of Hindu culture at that time. The Liyangan Site therefore has the potential to be utilized as a learning resource to explain the context of community life during the Mataram Kuno Kingdom. By incorporating data from this site, history learning can become more concrete and supported by archaeological evidence.

The relationship between the Liyangan Site and the topic of Hindu–Buddhist kingdoms in the Senior High School curriculum can be observed through various aspects of past community life. One aspect that can be examined is the belief system that developed during that period. Archaeological findings at the site indicate the presence of sacred structures and artifacts related to Hindu religious practices. This evidence suggests that the community inhabiting the area had strong connections with the Hindu religious traditions that flourished during the Mataram Kuno Kingdom (Riyanto et al., 2023). Such information can be used as learning material to explain how belief systems influenced the social life of communities. Students therefore learn not only abstract concepts about kingdoms but also encounter tangible evidence of cultural practices that developed during that period. This approach helps students understand history in a more contextual manner.

In addition to providing information about the social and cultural life of past communities, the findings at the Liyangan Site are also relevant to the study of disaster history. The site is known to have been buried by volcanic materials resulting from past volcanic activity (Giamboro et al., 2024). This event demonstrates that natural disasters had a significant influence on changes in settlement patterns. In the context of history learning, this information can be used to explain how past communities faced disaster risks originating from their natural environment. Through this perspective, students can understand that natural disasters are not merely natural phenomena but also have historical implications for human life. The Liyangan Site can therefore serve as an important example for integrating disaster history studies into history learning materials. This approach offers a new perspective for understanding the dynamics of historical development in society.

The development of disaster history materials based on the findings from the Liyangan Site can also enrich discussions about the lives of communities during the Hindu–Buddhist kingdoms. History materials in schools have often emphasized political and governmental aspects of these kingdoms. However, the lives of communities during that period were also influenced by environmental factors that could trigger significant changes in their lives. By utilizing data from the Liyangan Site, teachers can explain that the development of a settlement was not determined solely by political authority but also by the surrounding natural conditions. Natural disasters could lead to changes in settlement patterns, economic activities, and even social structures within communities. Such understanding allows students to perceive history as a complex and multidimensional process.

From a pedagogical perspective, the use of the Liyangan Site as a source of learning materials can also improve the quality of classroom learning processes. Teachers can employ various forms of documentation of archaeological findings as engaging learning media for students. For instance, images of artifacts, reconstructions of ancient structures, and maps showing the location of the site can be used to explain the historical context being studied (Septriani, 2025). This approach can help students develop analytical skills in interpreting historical sources.

Furthermore, students may be encouraged to discuss the relationship between archaeological findings and the lives of past communities. Through such activities, history learning becomes not only narrative but also analytical in nature. This can encourage students to think more critically in understanding historical events.

The development of site-based materials is also consistent with the contextual learning approach that is widely implemented in history education today (Soetopo & Mursidi, 2026). This approach emphasizes the importance of linking learning materials with real conditions that can be observed by students. Archaeological sites such as the Liyangan Site can serve as a medium for connecting historical theory with empirical evidence in the field. By utilizing the site, students can understand that history is not only contained in textbooks but also preserved in material remains that can be scientifically studied. This approach can also increase students' interest in learning history. When students realize that historical evidence can be encountered in tangible forms, they become more motivated to explore the past in greater depth. The integration of archaeological sites in history education therefore holds significant pedagogical value.

The use of the Liyangan Site in history learning can also support the development of local history within the school curriculum. Local history plays an important role in enriching students' understanding of the diversity of historical experiences in Indonesia (Setiawan & Kurniasih, 2025). Through the study of archaeological sites, students can learn how a particular region contributed to the development of civilization in the past. This perspective helps students understand that national history is formed through various interconnected local experiences (Martha et al., 2023). History learning therefore does not focus solely on major centers of political power but also considers the dynamics of community life in different regions. This approach can strengthen students' sense of identity and appreciation for cultural heritage. Such understanding forms an important component of history education oriented toward cultural preservation.

The integration of disaster history materials based on the Liyangan Site can also contribute to disaster mitigation education in schools. By studying events that occurred in the past, students can understand that natural disasters have long been part of the historical trajectory of Indonesian society. This understanding can help students recognize the importance of preparedness in facing disaster risks. Furthermore, such learning can foster awareness of the relationship between human activities and environmental conditions. This awareness is particularly important for younger generations living in regions with high disaster potential. Disaster history learning therefore provides broader benefits for public education (Wibowo & Syaifulloh, 2022). The material is not only related to the past but also highly relevant to present-day life.

Based on these discussions, it can be understood that the archaeological findings from the Liyangan Site have significant potential to be developed as history learning materials at the Senior High School level. The site not only provides information about the lives of communities during the period of the Mataram Kuno Kingdom but also illustrates how natural disasters influenced the dynamics of human life. Integrating these findings into the history curriculum can enrich students' understanding of the Hindu–Buddhist kingdoms in Indonesia. Furthermore, this approach allows for the development of disaster history materials that are more contextual and evidence-based. History learning therefore functions not only to understand the past but also to build awareness of the relationship between humans and the environment. The utilization of the Liyangan Site in history education is expected to become an innovation in the development of history learning materials in Indonesia.

3.2. The Development of Disaster History Materials in Senior High School History Learning Based on the Findings of the Liyangan Site

The development of disaster history materials in history learning at the Senior High School level can be undertaken by utilizing archaeological findings that record natural events from the past (Kholiq, 2025). One important source that can be used is the Liyangan Site, an ancient settlement from the period of the Mataram Kuno Kingdom that provides insights into the lives of past communities while simultaneously recording evidence of natural disasters that once occurred (Riyanto, 2017). The site preserves various archaeological remains, including structural remnants of buildings, household artifacts, and religious structures that reflect community activities during that period. The uniqueness of the site lies in the condition of the settlement, which was buried by volcanic material (Riyanto et al., 2023). This condition indicates that the area once experienced a disaster event that brought about major changes in the lives of its inhabitants. Such information offers opportunities to develop disaster history materials for history education in schools. By utilizing this archaeological evidence, students can understand that natural disasters also form part of historical processes. The Liyangan Site can therefore serve as a relevant learning resource in the study of disaster history.

One important aspect that can be developed from the findings of this site is the reconstruction of community life prior to the occurrence of the disaster. Various archaeological discoveries indicate that the community living in the area possessed a well-organized settlement system. The structural remains reveal the existence of residential houses, places of worship, and spaces used for communal activities. These findings provide an overview of the patterns of community life that developed during that period (Riyanto et al., 2023). Through such information, students can learn how past societies constructed their living environments in accordance with their geographical conditions. Understanding life before the disaster occurred is essential in the study of disaster history. It helps explain how a community developed before being disrupted by natural events. Learning materials can therefore illustrate the dynamics of community life both before and after the occurrence of a disaster.

In addition to describing community life prior to the disaster, the learning materials can also explain the process through which the disaster occurred and eventually buried the site. Based on archaeological and geological studies, the Liyangan Site area was covered by volcanic material originating from the activity of Mount Sindoro. The volcanic eruption produced flows of materials such as volcanic ash, sand, and rocks that subsequently buried the settlement area. This event brought community activities in the area to a halt and left traces preserved within the soil layers (Giamboro et al., 2024). This information can be used in history learning to explain the relationship between geological activities and changes in human life. Students can understand that natural phenomena such as volcanic eruptions can significantly affect the sustainability of human communities. History learning therefore does not only examine social and political events but also explores the interaction between humans and the natural environment.

Disaster history materials can also be developed by explaining the social impacts of disaster events on community life. When a settlement is buried by volcanic material, the people living in the area must face major transformations in their lives. Such events may result in population displacement, changes in economic patterns, and the loss of certain cultural heritage possessed by the community (Hudayana, 2025). In the context of the Liyangan Site, the natural disaster most likely forced the inhabitants to abandon their settlement. This information can help students understand that disasters affect not only the physical environment but also the social structures of communities. Discussions about the social impacts of disasters can broaden students' perspectives on the complexity

of historical events. Learning materials can therefore provide a deeper understanding of the consequences of natural disasters.

The development of disaster history materials can also address how past communities adapted to disaster-prone environments. Although areas surrounding volcanoes carry potential hazards, they also offer natural resources that support human life. Fertile soil resulting from volcanic activity has often encouraged communities to settle in such regions (Rasidi et al., 2024). This indicates that past societies considered multiple factors when determining the locations of their settlements. Through this learning process, students can understand that the relationship between humans and the environment is dynamic. Communities are not merely victims of disasters but also attempt to adjust and adapt to the natural conditions surrounding them. Such understanding helps students view history as a complex process of interaction between humans and nature. Disaster history materials can therefore enrich perspectives within history education.

Findings from the Liyangan Site can also be used to explain how archaeological evidence assists researchers in reconstructing disaster events in the past. The soil layers that covered the settlement provide information about the process of volcanic eruptions and their impact on the surrounding environment (Giamboro et al., 2024). Archaeologists and geologists can analyze these layers to determine the sequence of events that occurred in the past. This information demonstrates that scientific research can reveal historical narratives hidden beneath the ground. In history learning, this research process can be introduced to students as part of the scientific method for understanding the past. It helps students realize that historical knowledge is not derived solely from written texts but also from material evidence uncovered through archaeological investigation. Students can thus understand how historical narratives are reconstructed through scientific research.

The relationship between the findings of the Liyangan Site and history learning can also be directed toward strengthening disaster mitigation awareness. Disaster mitigation is an important effort to reduce the risks and impacts caused by natural events (Rahayu et al., 2024). Through disaster history learning, students can understand that disasters have long been part of the historical trajectory of Indonesian society. Knowledge of past community experiences can serve as an important lesson for addressing potential disasters in the present (Sulistiyani et al., 2022). By understanding how a community was affected by a volcanic eruption, students can learn about the importance of preparedness in facing disaster risks. This learning process can also encourage students to develop a better understanding of the geographical conditions of their living environments. History can therefore function as a medium for building awareness of the importance of disaster mitigation.

In the classroom context, disaster history materials based on the findings of the Liyangan Site can be presented through various engaging approaches. Teachers may utilize images of archaeological discoveries, maps showing the location of the site, or visual reconstructions of the settlement to help students understand the historical context being studied. In addition, students can be invited to discuss the relationship between volcanic activity and the lives of communities living in the surrounding areas. Such an approach can help students develop critical thinking skills in interpreting historical events (Hatibu et al., 2025). Source analysis activities can also be used to demonstrate how archaeological evidence is employed in historical research. Through interactive learning methods, students can more easily understand the relationship between disaster events and transformations in community life. This approach can contribute to improving the quality of history learning in schools.

The development of site-based disaster history materials can also strengthen the integration between history learning and environmental education. Through this study, students can understand that humans have always lived

alongside natural environments that carry potential risks. Awareness of this relationship is essential in fostering a sense of responsibility toward environmental preservation (Maresi & Basoeki, 2024). By studying events that occurred at the Liyangan Site, students can understand how environmental changes may influence human life. This learning process can also encourage awareness of the importance of maintaining a balance between human activities and natural conditions. Furthermore, students can recognize that knowledge of disaster history can serve as a valuable resource for future learning.

The archaeological findings at the Liyangan Site have strong potential to be developed as disaster history materials in Senior High School history learning. The site provides concrete evidence of how a community once experienced disaster events caused by volcanic activity. Such information can be used to explain the relationship between human life, the natural environment, and disaster risks. Through the development of learning materials based on the findings from this site, students can gain a more comprehensive understanding of disaster history. Moreover, this learning process can enhance students' awareness of the importance of disaster mitigation in community life. The utilization of findings from the Liyangan Site in history learning can therefore make an important contribution to building an educational approach that is more contextual and relevant to Indonesia's geographical conditions.

4. CONCLUSION

Based on the discussion presented above, the development of disaster history materials in history learning at the Senior High School level has significant potential to enrich perspectives in history education. Thus far, history materials in schools have largely emphasized political aspects, governmental structures, and social dynamics within society, while the dimension of the relationship between humans and the environment particularly in the context of natural disasters has received limited attention. The utilization of archaeological findings from the Liyangan Site provides an opportunity to present learning materials that are more contextual and grounded in empirical evidence. The site records a natural disaster event in the form of the eruption of Mount Sindoro, which buried past community settlements under volcanic material. This information indicates that natural disasters are part of historical dynamics that influence human life. By integrating these findings into history learning materials, students can understand that history is not only concerned with social and political events but also with interactions between humans and their natural environment.

In addition to enriching historical understanding, the development of disaster history materials based on findings from the Liyangan Site also holds important relevance for disaster mitigation education. Through this learning process, students can study the experiences of past communities in confronting natural events that significantly affected their lives. Such knowledge can help students understand the importance of preparedness and awareness of potential disasters in their surrounding environment. The integration of disaster history studies into history learning at the Senior High School level not only enhances the quality of historical understanding but also contributes to building awareness among younger generations regarding the importance of disaster mitigation. The use of archaeological sites as learning resources also demonstrates that the results of scientific research can provide broader benefits for the field of education. The development of disaster history materials based on archaeological findings can therefore become an innovative approach in history education that is more relevant to Indonesia's geographical and environmental conditions.

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