



Optimizing the Function of Museums as a Medium for Evaluating History Learning in Supporting Students' Critical Thinking Skills

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Abstract

The use of museums as a medium for evaluating history learning plays a strategic role in improving the quality of the learning process while sharpening students' critical thinking skills. This study aims to evaluate history learning at the Learning Museum of Universitas Negeri Malang (UM), focusing on optimizing the museum's role in supporting students' critical thinking abilities. A qualitative approach with a participatory design was employed, involving museum administrators, lecturers, and history students as key participants. Primary data were collected through participant observation and in-depth interviews, while secondary data were obtained from literature studies, documentation, and museum archives. Data analysis was conducted thematically through the stages of data reduction, display, and verification to ensure the validity of the findings. The results indicate that the application of a participatory approach in history learning at the museum significantly enhances student engagement, strengthens critical and reflective thinking skills, and fosters a deeper understanding of historical material. Students not only function as recipients of information but also actively engage in discussing historical contexts and reflecting on the relevance of historical values in contemporary life. Furthermore, the museum has proven to be an effective medium for authentic, contextual, and enjoyable learning evaluation, capable of bridging the gap between theory and practice. This study contributes to the literature on museums as a medium for participatory learning and critical thinking in history education. The findings also provide practical recommendations for museum administrators and educators in designing innovative history learning programs. More broadly, this research may serve as a reference for developing museum-based history learning strategies in Indonesia and at the international level.

Keywords:

critical thinking skills; evaluation of history learning; museum; participatory approach

Abstrak

Evaluasi pembelajaran melalui pemanfaatan museum sangatlah dibutuhkan, mengingat museum memiliki fungsi dan peran penting dalam meningkatkan kualitas pembelajaran sejarah. Melalui pendekatan partisipatori, museum bisa menjadi solusi dalam meningkatkan kemampuan berpikir kritis Mahasiswa sejarah. Penelitian ini bertujuan untuk mengkaji tentang evaluasi pembelajaran sejarah di Museum Pembelajaran Universitas Negeri Malang, dengan mengamati kemampuan mahasiswa dalam berpikir kritis saat mengikuti pembelajaran sejarah selama di Museum. Penelitian ini menggunakan metode kualitatif dengan pendekatan studi kasus. Pengumpulan data melibatkan Mahasiswa selaku pengunjung dan pengelola museum, dengan melakukan observasi langsung di Museum Pembelajaran UM dan wawaancara bersama pengelola museum dan Mahasiswa pendidikan sejarah UM saat melakukan kunjungan di Museum. Sementara analisis data dilakukan dengan mencatat dan mendokumentasi koleksi berupa arsip dan benda-benda bersejarah lainnya. Hasil dalam penelitian menunjukkan bahwa, melalui pendekatan partisipatori Museum Pembelajaran UM dapat dijadikan sebagai alat evaluasi pembelajaran sejarah. Selain itu, dengan memanfaatkan museum sebagai media evaluasi pembelajaran sejarah dapat memotivasi dan meningkatkan kemampuan berpikir kritis Mahasiswa sejarah dalam menerima materi tentang sejarah.

Kata Kunci:

evaluasi pembelajaran sejarah; kemampuan berpikir kritis; museum; pendekatan partisipatori



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Introduction

History education today faces increasingly complex challenges alongside the rapid development of technology, social change, and the demands of 21st-century education. Ideally, history learning should not only focus on transferring knowledge about past events but also aim to foster students' ability to connect historical events with contemporary contexts while encouraging the development of critical, reflective, and solution-oriented attitudes (Asmara, 2019; Mareta & Jamil, 2022). This transformation in history education requires continuous innovation in teaching methods and approaches so that learning is not merely informative but also empowers students as active agents in the learning process (Howell, 2021; Zainuddin, 2018).

Traditional teaching methods such as lectures, memorization, and textbookbased learning are often considered less effective in enhancing student engagement and deep understanding (Alnasser & Yi, 2023). To address this, the use of alternative media and learning resources, such as museums, has become highly relevant. Museums not only serve as spaces for artifact preservation but also as public educational centers that offer interactive, contextual, and meaningful learning experiences (Amrozi & Amiranti, 2012; Posha & Yusnita, 2023; Kiswantoro & Damiasih, 2018).

Several studies have shown that incorporating museums into history learning can enrich students' knowledge, enhance historical literacy, and foster critical awareness of past social and cultural values (Ahnaf et al., 2021; Haq & Wiyanarti, 2019; Kustyaningsih et al., 2018). Learning history in a museum setting has its own distinctiveness, as it integrates formal and informal educational approaches. Museums as informal educational media provide an environment where students can learn directly from historical artifacts and primary sources (Burhanuddin & Sulaiman, 2020). Unlike traditional classrooms, museums offer a more interactive and multisensory experience, where students can see, touch, and directly interact with historical objects (Jos & Salleh, 2023). This direct engagement with artifacts helps strengthen students' emotional and intellectual connection to the material, making the learning process more meaningful and memorable. This approach also aligns with constructivist learning theory, which posits that knowledge is constructed through active interaction with the environment (Suparlan, 2019). In the museum context, students are not passive recipients of information but active participants in exploration and discovery, enabling them to build their own understanding of historical events and figures. For example, by viewing original artifacts from a historical event, students can form stronger and more relevant connections between what they learn in class and the historical realities they encounter firsthand (Schaper et al., 2018). Such activities involve critical reflection, where students are encouraged to question, analyze information, and develop their own interpretations.

Furthermore, museums provide unique opportunities for project-based and collaborative learning (Novitasari, 2023). Students can engage in activities such as research projects, presentations, or mini-exhibitions, which require teamwork, idea sharing, and the integration of various information sources. This approach not only deepens their historical understanding but also cultivates important skills such as teamwork, communication, and problem-solving (Dara & Kesavan, 2024). Thus, museums function as dynamic educational laboratories where history learning becomes a living and continuous process, involving direct experience, social interaction, and in-depth critical reflection (Rohanda & Agustina, 2016).

One example is the Learning Museum at Universitas Negeri Malang (UM), which has significant potential as an innovative center for history education. According to the museum's director, Moch. Nurfahrul Lukmanul Khakim (2024), during observation and interviews, the UM Learning Museum not only offers a collection of historical artifacts but is also designed as an educational space where the academic community and the general public can engage in interactive learning. However, the low level of student understanding of the museum's educational function and the lack of engaging educational programs present significant challenges in museum management (Lutfi et al., 2019; Rahmawati et al., 2024).

Most students are drawn only to the visual displays of the exhibitions without delving into the deeper meaning of the collections. Yet museums hold great potential as effective media for evaluating history learning through participatory approaches that can enhance students' active engagement while sharpening their critical thinking skills. In the current digital era, museums are also encouraged to adapt to technological developments to increase accessibility and effectiveness, including the use of virtual reality applications, interactive media, and experience-based learning programs (Kusumaningsih et al., 2018; Sularsa & Prihatmanto, 2015; Talib et al., 2023).

Although research on museums and history learning is relatively extensive, studies specifically examining the evaluation of history learning at the UM Learning Museum remain limited. This creates a research gap that needs to be addressed, particularly regarding how museums can be optimally utilized as media to enhance students' critical thinking skills through participatory approaches. This study aims to explore the role of museums as media for evaluating history learning using participatory approaches, with a focus on students' critical thinking abilities.

Museum search not only contributes to the development of theory on the role of museums in historical education but also offers practical recommendations for museum administrators and educators in designing innovative, interactive, and authentic evaluation-based educational programs during museum visits. Beyond its theoretical contributions to literature, the findings of this study also provide practical implications for the management of interactive and innovative museums, potentially serving as a model for other museums both nationally and internationally.

Methods

This study employed a qualitative approach with a participatory design to examine the role of the museum as a medium for evaluating history learning that supports the development of students' critical thinking skills. A qualitative approach was chosen to explore the meanings, experiences, and perspectives of students in depth within the context of museum-based history learning. The participatory approach enabled the researcher not only to observe passively but also to engage actively in the learning process, thus providing a more holistic understanding of the dynamics of interaction between students, lecturers, and museum administrators (Creswell, 2018; Istiawan, 2021).

Participatory Research Design

The participatory design in this study focused on evaluating visitor participation and optimizing the museum's function as a medium for history learning that supports students' critical thinking abilities. This design was developed to involve students-specifically, history students at Universitas Negeri Malang (UM)-as active subjects throughout all phases of the research and learning process, from planning and implementation to reflection on the history learning activities in the museum. The primary instruments used included participant observation, in-depth interviews, documentation of learning activities, and field notes.

Technically, following the findings of Oorschot et al., (2022), the participatory design in this study was implemented through three main phases. **First**, the planning phase, which involved collaboration among the researcher, lecturers, students, and museum administrators to engage students in interactive learning activities, including discussions, role-playing simulations, and historical analysis of the museum. **Second**, the implementation phase, during which students participated in museum activities such as examining the museum's exhibition collections, discussing findings, and reflecting on the history learning process in the museum. **Third**, the evaluation phase, which was carried out by analyzing data from observations, interviews, and learning documentation to assess the level of participation, development of critical thinking skills, and challenges encountered.

The theoretical foundation of this research included critical pedagogy, which Emphasizes the importance of students' reflective awareness of social realities (Pernantah, 2020), as well as social constructivism, which views knowledge as the result of joint construction through social interaction (Pranyata, 2023). The technical implementation of these theories was realized through learning strategies in the museum that encouraged students to analyze historical narratives, evaluate the validity of sources, and develop critical perspectives through group work.

Participants and Research Location

The participants in this study consisted of three main groups: history students from Universitas Negeri Malang (UM) as museum visitors, UM history course lecturers, and administrators of the UM Learning Museum. Participants were selected using purposive sampling, taking into consideration the students' involvement in museum-based learning activities with participatory programs implemented (Campbell et al., 2020). The UM Learning Museum was chosen as the research site because it is one of the educational museums actively developing participatory learning approaches in the higher education context (Rahmawati et al., 2024). The participant data and open-ended interview question points are presented in table 1.

Table 1. Participant Data and Open-Ended Interview Question Points

Participant Category (Code)	Number	Open-Ended Interview Question Guide
Museum Educator & Administrators (PM)	2	 Vision and mission of the learning museum for history education The role of the museum in supporting history learning for students Participatory programs or activities that have been implemented or are planned at the museum Impact of museum programs/activities on students' critical thinking skills Challenges encountered in developing participatory learning programs in the museum
UM History Lecturers (PL)	1	 Design of history learning using museum facilities To what extent the participatory approach helps improve students' understanding Types of activities most effective in enhancing students' critical thinking skills when learning in the museum Challenges encountered when implementing this approach Recommendations for optimizing museum-based learning
Museum Visitors/UM History Students (PS)	5	 Students' impressions after participating in history learning at the museum Activities students find most interesting and beneficial during museum-based learning Students' experiences in discussions or active participation during learning at the museum Students' views on the participatory approach in supporting critical thinking skills Students' suggestions or recommendations for improving the quality of history learning at the museum

Source: Author's Analysis, 2024

Data Collection Techniques

The data collection in this study included participatory observation, in-depth interviews, literature review, and document analysis. Participatory observation was conducted by directly observing the history learning process at the museum, including student interactions and their engagement in various activities (Moen &

Middelthon, 2015). In-depth semi-structured interviews were carried out with students, lecturers, and museum administrators to explore their perceptions, experiences, and challenges related to the participatory approach and its impact on critical thinking. The literature review was employed to examine scholarly references on history education, museums as learning media, and the development of critical thinking (Geerts et al., 2024). Meanwhile, document analysis involved the examination of lesson plans, activity modules, exhibition archives, and program evaluation reports to assess the alignment between program design and implementation (Kamariotou et al., 2021).

Data Analysis Techniques and Validity

Data were analyzed using thematic analysis techniques. Following Castleberry & Nolen, (2018), the thematic analysis process in this study involved three main stages: (1) data reduction, which entailed filtering relevant data from observations, interviews, and documentation; (2) data presentation in the form of descriptive narratives that organized the data according to emerging categories or themes, such as active participation, critical reflection, or historical meaning-making; and (3) verification or drawing conclusions by linking field findings to relevant theories to ensure the validity and consistency of interpretations.

To ensure data validity, the study employed source and method triangulation, comparing information from various data types and participant groups (Santos et al., 2020). Additionally, member checking was conducted by confirming preliminary interpretations with several participants to ensure that the reported findings accurately reflected their experiences (Vella, 2024). Through these analytical and validation procedures, this study provides a comprehensive account of the museum's function as a medium for evaluating history learning, not only enriching the learning experience but also fostering students' reflective and critical thinking skills.

Results and Discussion

This study reveals several key findings regarding the effectiveness of the participatory approach in history learning at the Learning Museum of Universitas Negeri Malang (UM) and its impact on students' critical thinking abilities. These findings are based on data analysis from participant observation, in-depth interviews, and document analysis.

The Role of the Learning Museum in Supporting History Education

The Learning Museum of Universitas Negeri Malang (UM) plays an important role as an educational partner in university-level history learning, particularly for UM students. Based on in-depth interviews with two museum administrators, the museum's main vision is to become a learning center that integrates historical knowledge with real-life experience, while its mission includes enhancing historical literacy, promoting cultural appreciation, and fostering critical thinking skills. One administrator, PM.1, stated, PM.1, *"We want students, whenever they visit the museum, not just to see inanimate objects, but to understand the historical narratives behind them"* (Interview results, October 2024), aligning with the findings of Zhou et al., (2022), who argue that museums are effective educational media connecting artifacts with historical narratives. The administrators also emphasized that the museum is not merely a place for visits but should become an integral part of the history learning process. PM.2 noted, *"The museum serves as an extension of the classroom, allowing students to learn through real experiences rather than relying solely on textbooks"* (Interview results, October 2024). This is supported by the research of Moorhouse et al., (2019), which asserts that experiential learning in museums can enhance students' critical thinking skills. This is reflected in lesson plan documents that include museum visits as part of the learning strategy rather than merely supplementary activities.

Based on participatory observation, the museum provides various supporting facilities, such as exhibition halls, multimedia corners, and educational programs designed to align with the curriculum. Document analysis, including activity modules and program evaluation reports, shows that the museum's educational function is continually being developed, including through thematic exhibitions and workshops relevant to course materials. This aligns with the findings of Gregoriou, (2019), who highlights that interactive museum facilities encourage students to explore and evaluate information more deeply.

The museum's infographic catalog, developed by researcher Rahmawati (2025) as part of her thesis project, was designed as an innovation in history learning for museum visitors. According to Mujtaba et al., (2018), the involvement of museum staff in collaboratively designing programs with lecturers and students indicates positive synergy, which is crucial for promoting reflective and relevant history learning. PM.2 emphasized, *"This role enriches students' understanding of history as something alive and relevant to their present lives"* (Interview results, October 2024).

Active Student Engagement in the Learning Process at the Museum

Interview findings with students, from five participants, revealed that most expressed great enthusiasm for actively participating in museum learning activities. Students were not merely passive participants but played active roles at every stage, from exploration and discussion to presentations. One student stated, PS.1: *"Initially, I was shy to ask questions, but as my friends became more active and the atmosphere became supportive, I became eager to join in as well"* (Personal Interview, November 2025). This aligns with Leftheriotis et al., (2017), who found that informal learning environments such as museums can create conditions that encourage social and cognitive engagement, thereby facilitating deeper learning.

Observations showed that students' active involvement was influenced by peer dynamics and the activity design, which required their direct participation. During the visit, students were invited to observe and answer questions from educators, gather information, and formulate group conclusions. Museum educators observed that the interaction patterns in the museum were much more dynamic compared to regular classrooms, as students felt freer to express themselves and share their opinions. PM.1 remarked, *"We see this as a positive activity; students appear more active and responsive compared to previous visits"* (Observation results, October 2024).



Figure 1. History students' activities during their visit to the UM Learning Museum Source: Author's Documentation, 2024

In-depth interviews revealed that some students found the learning experience at the museum more memorable compared to conventional classroom learning. They reported gaining a more contextual understanding of historical material and were able to connect it to current issues. PS.2 stated, *"Learning at the museum made me realize that history is not only about the past but is also connected to the present"* (Personal Interview, November 2024).

With a high level of engagement, this participatory approach has been shown to encourage students to become more reflective, critical, and independent learners, while also boosting their motivation to study history. PS.3 noted, *"I feel that this kind of learning approach is quite effective in encouraging student engagement during visits to the museum"* (Observation results, October 2024). This aligns with the findings of de Oliveira & Bizerra, (2024), who showed that participatory approaches in museums can increase student participation and strengthen conceptual understanding.

The Influence of Museum Activities on the Development of Critical Thinking Skills

The research findings indicate that museum activities play a significant role in fostering students' critical thinking skills. Based on interviews, students reported that they learned to analyze information, question historical narratives, and view events from multiple perspectives. PS.4: "I learned to see historical events from two sides, not just what is taught in class," said one student (Personal Interview, November 2024).

Observations revealed that students began to demonstrate the ability to identify cause-and-effect relationships, detect social patterns, and pose critical questions such as why an event occurred and how it impacted society. During discussion sessions, students were able to construct well-reasoned, data-based arguments. These findings are consistent with research by Chang et al., (2025), which states that experiential history learning can help students develop historical thinking skills, including the ability to analyze causality and understand social dynamics.

Document analysis of evaluation reports showed that following museum activities, there was a significant impact on students' critical thinking abilities, particularly in formulating reflective questions and constructing arguments. This is supported by a lecturer's statement, PL.1: "*After the museum visit, I noticed students were more critical during class discussions,*" (Personal Interview, October 2024). These findings align with Santos-Meneses et al., (2023), who argue that real-world experiential learning, such as museum visits, effectively enhances students' critical thinking skills by stimulating reflective questioning and argument formulation. Thus, museums not only enrich students' factual knowledge but also serve as a medium for sharpening critical thinking skills, which are crucial in higher education.

The Importance of Critical Thinking Skills in History Learning

In interviews, a museum manager stated, PL.1: "We observe that students become more courageous in asking critical questions when directly engaging with museum artifacts. They no longer simply memorize historical facts but begin to ask why an artifact matters, who made it, and how the social context of the time influenced its meaning," (Personal Interview, October 2024). This observation is reinforced by research Oktariani & Ekadiansyah, (2020), which found that direct interaction with authentic sources can spark student curiosity and facilitate critical thinking through analytical and reflective activities.

Moreover, museum staff reported, PM.2: "We often see students engaging in lively discussions in front of the exhibits. This is very different from regular visits that are merely guided tours," (Personal Interview, October 2024). This aligns with (Hartati, 2016) findings, which suggest that museum-based learning creates deeper learning experiences, as students are not just passive recipients of information but actively involved in meaning-making processes. In one observation session, the researcher documented an interesting moment when students engaged in questions and interactions regarding the museum's exhibition layout. One student asked, PS.5: "Why are museums often quiet and less visited? Could it be due to a lack of innovation and promotion from the management?" (Observation data, November 2024), as shown in Figure 2 below.



Figure 2. Students interacting and engaging in Q&A in one of the exhibition rooms at the UM Learning Museum Source: Author's documentation, 2024

Such interactions (Figure 2) demonstrate students' ability to evaluate dominant narratives and identify biases, as emphasized by Unwakoly, (2022), who argues that

critical thinking is not only about understanding content but also about challenging existing perspectives and opening space for alternative analyses.

In addition, one museum education staff member remarked, PM.2: "We see that students more easily grasp contemporary issues, such as tolerance and diversity, when they learn through historical artifacts. They become more sensitive to the relevance of history to current social issues," (Personal Interview, October 2024). This statement reinforces (Riana, 2021), view that critical thinking enables students to connect the past to the present, allowing them to become not merely rememberers of historical events but also reflective and contextually aware social actors.

Challenges in Museum-Based History Learning

Implementing museum-based learning is not without challenges. Interviews with museum managers revealed limitations such as small exhibition spaces and a lack of interactive audiovisual media. PM.1: *"We would like to extend the duration of visits to allow for deeper discussions, but sometimes we are constrained by class schedules,"* explained one museum manager (Personal Interview, October 2024).

From the lecturers' perspective, one of the main challenges is preparing students with preliminary knowledge before the visit. Many students come without sufficient historical literacy, requiring more time to adapt to the museum materials. PL.1: *"Without an introduction, students tend to just browse without understanding the context,"* said one lecturer (Personal Interview, November 2024). Research by Abril-López et al., (2021) supports this finding, emphasizing the importance of prior knowledge as a key factor in maximizing museum learning experiences. Furthermore, Trunfio et al., (2022) also highlight that without adequate preparation, museum experiences tend to be superficial and fail to stimulate deep cognitive engagement.

Students also face constraints such as limited time to explore each exhibit and difficulties understanding the historical language or terminology used in exhibit descriptions. Some students suggested the provision of simple guides or supporting applications to enable more independent learning. Identifying these challenges is essential for evaluating and improving future program implementation to better meet the needs of all stakeholders.

The Role of Educators and Museum Managers in Optimizing Museum Functions

Interviews with lecturers and museum staff revealed that collaboration between educators and museum managers plays a key role in the success of participatory approaches. Lecturers actively involved in designing and implementing museum activities reported that this approach helped them better understand students' learning needs and create more meaningful learning experiences. PL.1 stated, *"When we co-design activities, we can ensure they are not only engaging but also aligned with the intended learning outcomes,"* (Personal Interview, October 2024).

Through this collaboration, educators can design programs that directly accommodate the curriculum and academic needs while leveraging the museum's unique resources. They can also tailor activities based on student feedback, making the implemented programs more relevant and engaging. Research by Harlow & Skinner, (2019) supports the importance of such collaboration, showing that synergy

between educators and museums can create visitor-centered learning that integrates academic content with interactive experiences.

Museum staff also demonstrated strong commitment to providing services and programs that support critical learning, including the provision of relevant exhibition materials and the facilitation of interactive activities. PM.1 noted, "We always strive to design exhibitions that not only educate but also provoke critical questions from students," (Personal Interview, October 2024). They work alongside lecturers to develop materials that are not only informative but also challenge students to think critically. Museum staff play a role in designing exhibits and activities that promote active engagement, such as historical simulations, workshops, and the use of interactive technologies.

This commitment is reflected in ongoing efforts to update and enrich exhibition content to remain relevant to the latest developments in history and education. This is consistent with the findings of Harlow & Skinner, (2019), who emphasize that successful educational museums are those that combine elements of exploration, interaction, and reflection in every program. Close collaboration between lecturers and museum staff ensures that museum learning programs go beyond mere information transfer to become educational experiences that encourage students to think critically and analytically.

Strategies and Recommendations for Developing Participatory Learning Programs in Museums

To address existing challenges, this study recommends several development strategies. Lecturers suggest the importance of providing preparatory readings before visits to better equip students. PL.1: *"It would be better if students were provided with literature beforehand so they are more prepared for discussion,"* (Personal Interview, October 2024). This preparation can be conducted through pre-class assignments or preliminary discussions. From the museum side, managers proposed developing visual and audiovisual media, such as catalogs, posters, or other applications containing museum document and archive collections, to facilitate students' exploration of all museum-related information. PM.2: *"We are considering developing visual or audiovisual media, possibly app- or digital-based, so visitors can learn independently,"* said the museum manager (Personal Interview, November 2024). This is believed to enhance the effectiveness of visits and address the limited number of educational staff.

Additionally, it is necessary to strengthen collaboration between lecturers and museum managers, including through joint program design, student training, and the enrichment of learning materials based on literature studies. Students also suggested the creation of post-visit reflection forums to deepen their understanding of the material learned. These recommendations serve as important guidelines for optimizing museum-based history learning to be more inclusive, effective, and impactful.

Conclusion

This study evaluates the effectiveness of a participatory approach in history learning at the Learning Museum of Malang State University (UM) with a focus on optimizing students' thinking skills. Data analysis found that the participatory approach significantly increased student engagement in history learning activities. Students involved in group discussions, collaborative projects, and practical activities demonstrated higher interest and more active participation compared to those taught using conventional learning methods. The participatory approach in museum-based history education encourages students to develop critical thinking skills, such as analyzing information, evaluating historical sources, and asking more in-depth questions. Furthermore, collaboration between lecturers, students, and museum staff proved to be a key factor in the success of this approach, with all parties playing an active role in designing and implementing relevant and interactive educational programs.

This research also supports the view that participatory approaches and critical pedagogy can create a dynamic learning environment, foster critical reflection, and build knowledge through social interaction. However, this study also identifies several challenges, including students' difficulties in adapting to more active learning methods and the limitations of museum facilities. To address these challenges, the recommendations include developing more diverse educational programs, providing training for lecturers and museum staff, improving facilities and technology, and strengthening collaboration between universities and museums. Overall, this study concludes that the participatory approach has great potential to enhance student engagement and critical thinking skills in museum-based history learning. Sustained efforts to develop educational programs, strengthen educators' capacities, and improve learning facilities are expected to create more meaningful, relevant, and effective learning experiences. These findings are expected to make a significant contribution to the development of history education in Indonesia, particularly in the context of museum-based learning.

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