

## COMBINING HERITAGE AND TECHNOLOGY THROUGH DIGITAL CATALOGUE MEDIA TO IMPROVE STUDENTS' HISTORICAL LITERACY SKILLS IN SENIOR HIGH SCHOOL

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### ABSTRACT

Historical literacy is an ability that must be possessed by students when studying history. The purpose of historical literacy itself is not only about the ability to remember, but to know how a direction is made. Combining heritage with today's technology is one way to provide literacy-based history learning activities. This is because heritage objects not only provide information about historical stories but the relationship of buildings to events. The purpose of this research is to see how the learning process uses heritage objects with technology through the media developed. The research is qualitative research with a case study approach. Digital catalogue media is developed based on development research methods. Through combining heritage with technology, it is felt that it can provide more meaningful learning activities to improve historical literacy skills.

**Keywords:** Historical literacy, Digital Catalogue, Heritage, Technology

### 1.0 INTRODUCTION

History when seen as an event is an event that occurred in the past, while when seen as a knowledge is a science that studies events in the past. Historical literacy is one of the abilities that must be possessed by students in studying history at school. This is because history lessons themselves are different from other subjects, people often assume that history is a subject that "makes sense" without the abstraction that can be found in science and maths lessons (Lee, 2005).

According to Wineburg (1991), the concept of historical literacy is more than just remembering facts as proposed by Ravicht (1989). Wineburg (1991) explains that historical literacy is what is referred to as the three heuristic skills of Sourcing, Corroboration and contextualisation. This is because in historical literacy sourcing represents the lowest level of literacy and contextualisation ability is the highest level of literacy.

Sourcing itself refers to the activity of "noticing and evaluating historical sources" (Wineburg, 1991). It can be said to be a method or process that needs to be practised by someone when becoming a historian. Corroboration itself refers to the activity of checking the facts described in a source based on other documents (Perfetti et al, 1994). This activity develops the ability to prove or check information that has been collected and then tested using other sources to develop multi-perspective skills. Boix-Masilla (2000) explains that this ability is referred to as

"historical thinking", when doing this, a person will know about the strengths and weaknesses of a particular source. Contextualisation itself according to Lee (2005) is a key indicator that is difficult for students to achieve. This is because students must draw a connection between an event and a larger event. This is because someone who has high historical literacy must see that events are not a story but a map so that history can be contextualised in time and space (Shemilt, 2000).

The study in learning history is a variety of events that occurred in the past so that the history learning activities themselves must at least involve historical sources such as documents, photos and buildings or cultural heritage areas. This is because the events studied have passed so that we only know information based on the work of others or buildings or sources that have become historical sources (Lee & Ashby, 2000); Lee, 2005).

The use of heritage in educational contexts, especially history learning, is like crossing the boundaries that have been established between historical objects and history and bringing together different things. Crossing these boundaries can be difficult but it also has the potential to open a space for negotiating meaning (Akkerman & Baker, 2011).

Learning activities based on cultural heritage will make history a learning resource that is able to facilitate the understanding of historical concepts and help students understand how the world we live in, so that it can contribute to the understanding of history and the construction of the three pillars of history education, namely history, memory, and identity (Magro, Carvalho & Marcelino, 2014).

The pedagogical use of cultural assets and heritage buildings is an important aspect because these objects when implemented in learning activities will make learning activities less focused on books and make activities livelier to provide more meaning to students (Mendes, 2009). Not only that, the use of heritage buildings also introduces students to several methodologies in learning activities so that it can motivate so that students are more interested in learning history. This is because during learning activities, teachers will place the environment around students as an aspect that must be understood by students.

On the other hand, combining history learning activities with technology and multimedia will motivate students to use technology more wisely "digital-born" so that they will utilise gadgets not only as a means of playing but also to learn, communicate and interact as well (Moura, 2008). The utilisation of technology in learning activities will also utilise students' potential because students today are more familiar with the internet and increasingly sophisticated technology. This will indirectly provide opportunities for all students in fighting the digital divide.

Based on the explanation of the importance of historical literacy and the use of historical objects in learning activities, the researcher will conduct a study that discusses teacher preparation in teaching historical literacy using historical objects around students. Researchers will explain how the teacher's implementation in teaching using historical objects. The results of teacher learning in using heritage objects in learning activities to students and learning evaluation will be a framework for formulating problems in this study.

## **2.0 MATERIALS AND METHODS**

This research uses qualitative methods with a case study approach. Data sources were obtained from informants, namely a history teacher and students using in-depth interview methods, collecting through various events or activities carried out and taking learning device documents. The population used by researchers is high school in Surabaya with samples of SMAN 10 Surabaya and SMAN 14 Surabaya. Data collection techniques using interviews, observation, and documentation techniques. Interviews were used to find out the history learning process that can improve historical literacy. Observation was used to obtain data on how the learning process using heritage buildings to improve literacy skills. Documentation was used to find out how the description of history learning has been implemented. Data validity testing used triangulation and source triangulation methods. Data analysis uses interactive analysis, namely data reduction, data presentation and conclusion drawing based on the data that has been obtained.

### 3.0 RESULT

#### 3.1 Pre-implementation

The first step in this research is to search for materials to be taught based on the material to be taught. The material to be taught is packaged in the form of a catalogue book that has been digitised so that students can access via computer or smartphone.

The materials will be developed using the constructivism approach to better understand the students when they learn independently. The packaging of historical objects material using catalogues is used based on the results of interviews with history teachers and students at SMAN 10 and SMAN 14 Surabaya (22 August 2023). Based on these interviews, the use of technology can help students in learning history using historical objects, this is because the distance from each historical object is far apart.



**Figure 1. Interview with teachers related to learning media.**

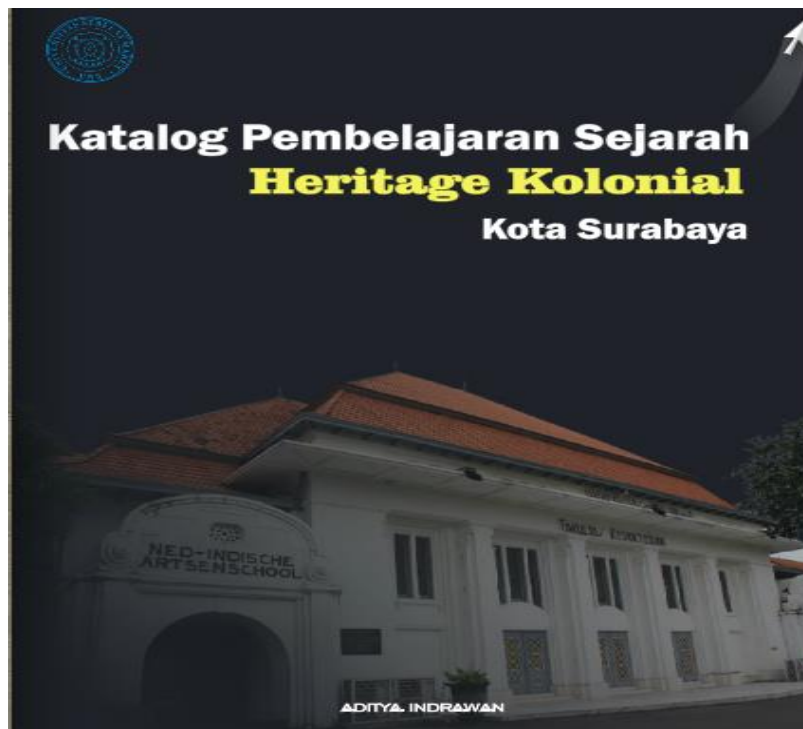
The digital catalogue book used in the learning process is based on the development research method. The digital catalogue contains images and materials about the impact of colonisation in Surabaya. The material is from local history, this is because local history itself is the basis for developing students' personal, cultural, and social personality (Fitzsimons, 2015).

Before learning activities begin, teachers prepare various media and materials to be taught. The use of various media in teaching is in line with the existing curriculum in Indonesia, where in the independent curriculum teachers have the freedom to use media and methods in learning so that activities can run optimally.

In the assessment process the teacher will use an assessment using essay questions based on the results of these questions, the teacher will review the results that have been obtained with the previous value. The purpose of this assessment is to see how the development of students' historical literacy skills.

### **3.2 Media Implementation Process**

Learning activities were conducted in two classes at SMAN 10 Surabaya and SMAN 14 Surabaya with a total of 65 students. In the learning activities carried out by the teacher using the constructivism approach, this is because through the constructivism approach students can combine experiences with various ideas that have been obtained to produce their own references to what is taught. In the learning process of constructivism, the process of building knowledge will depend on students' experiences and how they apply it to new experiences, so here the teacher is only seen as a guide for students in organising a conceptual knowledge not as a provider of knowledge (Glaserfeld, 2008).



**Figure 2. The front page of the developed digital catalogue media**

Learning activities are opened with (elicit prior knowledge) asking questions to students about the material to be taught, Students are given questions such as:

- Do you know the history of Surabaya?
- Why did Surabaya become a trading city?
- What was the shape of the city of Surabaya during the colonial government?

This question is asked with the aim of seeing how far the initial understanding of the material to be taught. Learning activities are continued with (create cognitive dissonance) students will be given problems to solve.



**Figure 3. Students using digital learning media.**

Students will look for solutions to problems using the knowledge they have, and they will look for the latest information using valid sources provided by the teacher or sources they find themselves. At this stage students will be given tutorials to access scientific journals and given access to open the digital catalogue media that has been developed. The use of various sources in learning activities is done not only to broaden students' horizons, but to create understanding from each student.



**Figure 4. Map of the distribution of cultural heritage by the Surabaya City Culture and Tourism Office.**

In the information search stage, students are also given access to a map of the distribution of cultural heritage in Surabaya, the map was developed by the Surabaya City Culture and Tourism Office. The map is integrated into the media catalogue as a tool so that students have wider access to information. The use of a map of the distribution of cultural heritage in Surabaya is carried out to provide information on the existence of links between historical events locally and nationally and can provide understanding and experience of the environment and local identity (Gomes, Silva & Marcelino, 2005).



**Figure 5 Students make presentations about the information they have obtained.**

In the next stage, after searching for information using valid sources, students will conduct presentation activities on the problems given by the teacher. This is done for review activities whether the information that has been obtained by the student is able to solve the problem given as a whole or there are shortcomings, if there are shortcomings then it will be filled in by other students' knowledge so that it becomes intact. In the next stage, a quizz will be conducted using the quizziz application to see how far the knowledge has been obtained by students. Activities such as presentations and quizzes are carried out to encourage students to evaluate the new information, they have obtained so that the information can be modified according to their respective understanding.



## Figure 6. Quiz game activities using the kahoot app

### 3.3 Learning Evaluation Phase

In the learning process, evaluation activities are very necessary to see how effective the learning activities carried out by the teacher in general (Aulia, Rahmawati & Permana, 2020). Evaluation activities in learning are also carried out to see how far the development of each student is.

Evaluation activities in learning are carried out after students have completed various kinds of activities that teachers have arranged in learning. Evaluation activities are carried out twice, before the learning activities begin and after the learning activities are completed.

At this stage students will work on the essay questions that have been made. This question is used to provide an opportunity for students to show how deep their understanding is. The use of essay questions in the evaluation process is intended to see the level of students' literacy skills, this is because when students are given multiple choice questions there is a chance that students will answer questions randomly. Meanwhile, when using essay questions, they must use the understanding and information they have gained during learning.

### 4.0 DISCUSSION

Learning activities in Indonesia refer to the independent curriculum. In the formulation of history learning outcomes in the independent curriculum there are thirteen formulations of history learning objectives, the formulation of these objectives includes (1) fostering historical awareness, (2) fostering an understanding of oneself; (3) fostering collective understanding as a nation; (4) fostering a sense of pride in the glory of the past; (5) fostering a sense of nationalism and patriotism; (6) develop moral, humanitarian and environmental values; (7) develop the values of diversity and mutual cooperation; (8) develop an understanding of the human dimension, namely the ability to analyze thoughts, atmosphere, mysticism, actions, and works that have meaning in history; (9) develop an understanding of the spatial dimension, such as the ability to analyze the relationship or connection between events that occur locally, nationally and globally; (10) to develop an understanding of time, such as the ability to see events as a whole including the dimensions of the past, present and future and to analyze development, continuity, repetition and change in human life; (11) to train diachronic (chronology), synchronic, imaginative causality, creative, critical, reflective, contextual and multiperspective thinking skills; (12) train skills in finding sources (heuristics), criticism and selection of sources (verification), analysis and synthesis of sources (interpretation), and writing history (historiography); (13) train skills in processing historical information non-digitally and digitally in various forms of historical applications, sound recording, documentary film, photo, maker, vlog storyboard, timeline, infographic, videographic, posters, comics and others (Kemendikbudristek, 2022).

Referring to point 11 on contextual thinking skills and point 12 regarding students must have skills in conducting heuristics, criticism, interpretation, and historiography, it can be linked to the concept of historical literacy provided by Wineburg (1991) that students must have the abilities possessed by historians in reading sources such as sourcing, contextualization and corroboration. For students to have sourcing, contextualisation and corroboration skills, they

must first understand how history is produced. Understanding how history is produced can be done if learning activities are conducted using valid historical sources such as heritage buildings.

The use of historical buildings through digital catalogue media contributes to history learning activities. This is because through these activities, the integration of technology in learning activities can provide learning experiences that are not too fixated on reading books from schools. The utilisation of historical buildings in the local context also provides more meaning in learning activities, this is in line with what was conveyed by Kochar (2008) that learning history using local history will make students not just learn about events in the past but provide benefits for current and future life. The use of heritage objects is not only learning about an object, but the object has a biography or understanding that is interrelated with a larger history, this is because sometimes students do not know about the value of a building or historical area to historical events (Nemko, 2009; Seixas & Clark, 2004).

## 5.0 CONCLUSION

Historical literacy is a skill that every student in Indonesia should have. Through historical literacy, students will not only learn about how history is told but will also understand how history is made. The utilisation of heritage and technology in history learning activities can be one way to conduct learning activities based on historical literacy. This is because by heritage buildings, students not only get information from the building but also the connection between the heritage building and historical events in the past. The use of technology in history learning activities is not only about helping learning activities, but also being able to provide more experience in learning activities.

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