Learning History Activities on Site (LHAOS) Based on Videography Technology

Wahyu Djoko Sulistyo*, Ulfatun Nafi’ah, Moch. Nurfahrul Lukmanul Khakim, and Hartono

Abstract—The learning model is an important and strategic aspect that affects the implementation of learning. Therefore, the learning model used must be varied and innovative to create effective and optimal learning outcomes. The first innovation in learning is the incorporation of technology and the second innovation is the use of historical sites in learning. This has a lot of potential and can solve many problems in history classes. This article presents a videography-based learning history activities on site (LHAOS) learning model that utilizes the Negeri Baru Temple site. The research method used is the research and development (R&D) method, following the analyze, design, develop, implement, and evaluate (ADDIE) approach, which includes the stages of analysis, design, development, implementation, and evaluation. The literature review is also conducted with descriptive analysis. The sources used include books, articles, archives, and other relevant sources. The results of this study include: first, a study of the Negeri Baru Temple site in Ketapang Regency, West Kalimantan, and second, a videography-based LHAOS learning model that utilizes the Negeri Baru Temple site. This learning model consists of three stages: observation, exploration, and reflection. This study reached an average score of 90 from the four aspects of the validator's assessment. The implementation results for the practical test and the effectiveness of the media consisting of seven aspects of the assessment, show an average score of 93.4. From these figures, it can be concluded that the product of the LHAOS model is an effective product.

Index Terms—Outdoor learning, videography, Negeri Baru Temple site, local history

I. INTRODUCTION

Education is one of the important elements and the key holder of control in building the civilization of a nation. Education acts as a foundation that supports progress, as developed countries are supported by solid education system [1, 2]. A solid education system gives birth to quality human resources capable of advancing the country. With the knowledge gained, individuals can cultivate their abilities and those of the environment around them. Given the importance of education, it is necessary to continuously improve its quality through a learning process that emphasizes the learning experience. Therefore, the education system must continue to transform to improve the quality of education [3, 4].

One of the lessons that should be carried out for sustainable transformation is the lesson of history. History lessons are lessons that serve a strategic function in shaping human character and building a dignified Indonesian civilization.

The distinctive characteristics of history have great potential to develop character education for students [5, 6]. From history, students can study events that occurred in the past with a critical analysis of causality and the challenges faced. Armed with this knowledge, students can take lessons to develop in the future [7].

In the era of globalization, education has developed significantly. These developments require many changes in learning. Teachers, as the driving force in learning, are required to carry out various innovations and demonstrate creativity [8–10]. Teachers have the full responsibility of creating a learning atmosphere and involving students in the learning process [11]. So that learning can be made active, interactive, and fun.

Teachers must prepare various solutions to deal with all the problems and dynamics that occur in learning. Innovation in learning becomes a necessity. These innovations include models, methods, media, learning resources, and various other learning components. The learning model is an important factor in achieving learning that prioritizes learning experiences. The learning model is a unified whole comprising approaches, strategies, methods, techniques and learning tactics [12]. The learning model describes in detail the typical form of learning from beginning to end [13].

History lessons are often seen as boring, uninteresting, and difficult to understand [14]. This paradigm is in line with the facts that occur in the field. On the other hand, there are many untapped potentials in history. It is a challenge that must be solved with a concrete solution. The use of varied learning models is one solution that can be done to change the negative stigma in history learning [15]. So that history can be expected to be a lesson that is considered important and provides relevance for students' lives in the real world.

The history learning model needed is a model that is able to provide an understanding of material concepts (conceptual) as well as being able to reconstruct the history of the past in a more realistic (contextual) way. One of the learning models that can be applied to understand history more deeply is outdoor learning. Collaboration with technology is needed in the development of innovative models [16]. Outdoor learning is learning to know the real-life situation [17]. Outdoor learning activities take advantage of the potential of the surrounding environment as a classroom [18]. By engaging in the field, students become active in exploring the site with a comprehensive understanding. Cooperative outdoor learning based on the use of technology creates fun and effective history learning [19]. One technology that is relevant to the development of today's era is videography. Learning activities with videography stimulate students' motor skills, making learning more active [20].

The number of historical sites that are not yet known by
students is a great potential that can be developed as outdoor learning. Using historical sites in learning can involve students and present interesting and fun learning. Outdoor history learning activities based on videography technology aim to create more realistic and maximum history learning [21]. Furthermore, it aims to eliminate the negative stigma of learning history which is boring and full of memorization.

The Negeri Baru Temple site is one of the new sites in Ketapang City, West Kalimantan Province. The New Country Temple site is one of the heritage sites of the Majapahit Kingdom in West Kalimantan. So far, the Negeri Baru Temple site has become less popular among students and the public. This is due to the lack of sources and historiography that discusses the Negeri Baru Temple site. This site can be a source of direct student learning in learning activities [22, 23].

Outdoor learning activities at the historical site of Negeri Baru Temple are an idea for the right solution for history learning. This activity also makes it easier for teachers to explain the material and motivates students in learning history. This activity is also a form of utilizing the Negeri Baru Temple site as well as an effort to increase local historical insight for students in West Kalimantan. A historical heritage site in an area should be the main source of historical insight for students in West Kalimantan. Seeing this potential, utilizing historical sites as a vehicle for outdoor learning. Through a combination of the use of historical sites and the adaptation of videography technology in one learning model, this research is an advantage compared to previous research. In this study, outdoor learning on historical sites is combined with videography technology. This combination is an optimization of creation and innovation by adapting to technological developments. It is hoped that with the combination of using videography technology, learning can be accessed anytime and anywhere, by educators and students alike. This learning model is also adapted to the problems and needs in the field, both in terms of models, materials, and technology.

Based on the above background, the authors describe the results of research and development of an interactive and fun history learning model product. The resulting model is called the Learning History Activities on Site (LHAOS) based on videography. This model is designed as an effort to present concrete learning by utilizing videography technology as the basis for the development and the Negeri Baru Temple site in Ketapang Regency, West Kalimantan Province as the content.

II. METHOD

The method used in this research is the research and development (R&D) method. This method contains a series of systematic and procedural steps to produce products that are tested for their effectiveness and can be accounted for. These steps are intended to produce a feasible and valid product, making it suitable for use in learning [32]. In this research, the R&D method used is the ADDIE model. The products in this development research will be prepared in stages according to the ADDIE model development steps. The ADDIE development model was introduced by Dick & Carrey in 1996 [33, 34]. The stages in this method consist of five stages: analysis, design, development, implementation, and evaluation (ADDIE), as shown in Fig. 1 [34, 35].

The ADDIE model was chosen because this model is a descriptive procedural model, showing careful and clear steps. In addition, this stage also aligns with the basic standardization of the development research stage [36]. The analysis phase is carried out by studying curriculum analysis, student character analysis, material analysis, problem analysis, and needs analysis, accompanied by references from sources as references [37]. The design phase was carried out to design an outdoor learning model on historical sites based on videography technology. The design is based on the results of the analysis that have been obtained on the draft LHAOS learning model, along with the instrument questionnaire.
At the development stage, field studies were carried out with data exploration and the complete process of making videography. Development activities include preparing learning model products and modifying/revising according to suggestions from material and media experts. Validation from material and media experts is the main basis for revisions before field trials are carried out.

The implementation phase is carried out by conducting concrete and real trials with the application of models that have been developed in the learning process. Products that have been developed are implemented in field trials with target students to provide a feasibility assessment. This stage is carried out to collect data about the quality of learning model products in achieving the goals of effective history learning. The data is used for materials for repairing and perfecting the Learning History Activities on Site (LHAOS) learning model. With the application in this field, the quality of the learning model will be truly tested empirically.

The type of data used in this study is primary data, which is obtained from research subjects. The research data is in the form of qualitative and quantitative data. Qualitative data is obtained through suggestions for product improvement from experts, while quantitative data is obtained from the results of expert validation and trial questionnaires regarding the effectiveness of learning using the Learning History Activities on Site (LHAOS) learning model. Expert validation data and student response questionnaires were made using an assessment instrument with a value interval of 1–100. Data from the assessment results will be calculated for each answer and processed using the following formula [32]:

\[
\text{Percentage of Value} = \frac{\text{Total Score obtained}}{\text{Total Maximum Score}} \times 100\%
\]

<table>
<thead>
<tr>
<th>No</th>
<th>Value Intervals</th>
<th>Classification</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>80–100</td>
<td>Very Eligible/Highly Effective</td>
</tr>
<tr>
<td>2</td>
<td>66–79</td>
<td>Eligible/Effective</td>
</tr>
<tr>
<td>3</td>
<td>56–65</td>
<td>Adequate/Effective</td>
</tr>
<tr>
<td>4</td>
<td>40–55</td>
<td>Less Feasible/Less Effective</td>
</tr>
<tr>
<td>5</td>
<td>0–39</td>
<td>Inadequate/Ineffective</td>
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</tbody>
</table>

With the above formula, the percentage of values obtained will make it easier for researchers to measure the level of validity and effectiveness of the learning history activities on site (LHAOS) learning model. After obtaining the percentage value of the expert validation results and the student response questionnaire, the value is converted to the classification of validation results and effectiveness according to Table 1 [38, 39].

The final stage is an evaluation to improve the product of this learning model. Evaluation is carried out to measure the success and suitability of the developed learning model. The results of the evaluation will be the conclusion regarding the developed learning model and a benchmark for the success of researchers in addressing and providing concrete solutions to existing problems and potentials. Evaluation is carried out by incorporating input and suggestions from various parties, data from trial results, and referring to student satisfaction questionnaires after learning.

The sources used in this research are books, literature, notes, research reports, articles, scientific papers, and other relevant sources. From the information and data obtained from these sources, they are carefully reviewed, studied, and analyzed to obtain mature information. The results of the analysis are then summarized descriptively to achieve maximum results. The object of study in this study is the site of the Negeri Baru Temple located in Ketapang Regency, West Kalimantan Province. The product trial subjects consisted of 100 students, five lecturers, and five teachers. The ideas in this article are organized as described in Fig. 2 below.

### III. RESULT AND DISCUSSION

#### A. Geographical and Historical Study of the Negeri Baru Temple Site

The site of the Negeri Baru Temple is in the administrative area of Negeri Baru Village, Benua Kayong District, Ketapang Regency, West Kalimantan Province. Astronomically, this site is located at 110°00’35.9” east longitude and 1°50’40.3” south latitude. The geographical condition of this site is located on the outskirts of the Pawan River, characterized by a fluvial landscape [40].

The geomorphological conditions at the Negeri Baru Temple site are in the form of a light brown to black colored sand deposition environment. This site is in the stages of development of river flow patterns, known as stadia, of an old river. This can be seen from the floodplain, which is filled with meanders (local) and has a wider width than the meander belt [41]. The area around the Negeri Baru Temple site is rich in oil palm plantations, banana trees, elephant grass, and other plants which are used as cattle feed by...
residents.

This site was discovered in several stages of the excavation process. In 2007, the excavation was started by the National Archaeological Research Center team and continued by the South Kalimantan Archaeological Center in 2010–2011. In 2013, the research was continued by the East Kalimantan Cultural Heritage Preservation Center (BPCB). Since then, the development of this site has been under the auspices of the South Kalimantan Archaeological Center and the East Kalimantan BPCB. In 2019, the team from East Kalimantan BPCB also carried out further studies and rescue excavations at the Negeri Baru Temple site to prevent damage from natural or man-made events. Additionally, the excavations were conducted to gather data on the completeness of the Negeri Baru Temple site (Fig. 3) [40].

The excavation at the Negeri Baru Temple site was carried out using artifactual and contextual analysis methods. Artifactual analysis involves studying the shape, size, technology, and style of the objects found in order to determine their function. Contextual analysis involves studying the relationship of the artifacts to their surroundings and the environment. The results from both analyses will be compared and used to draw conclusions about the site [40].

![Fig. 3. Finding the structure of the Negeri Baru Temple Site.](image)

Artifactualy, the site of the Negeri Baru Temple consists of three temple buildings lined up from north to south. The main temple is in the northernmost part with a companion temple in the south. This position is an unique position that exists in the universe. These temple-shaped towers are typically replicating the concept of Mount Mahameru as a microcosm of the universe. The main temple is in the northernmost part with a companion temple in the southernmost part. These temple-shaped towers are typically made of stone, brick, or a combination of both, and are commonly found in the ruins of the Majapahit Kingdom [44].

Historically, Negeri Baru was also known as “Banua Lama” which means old settlement. This area is closely related to the Tanjung Pura Kingdom in the southwest region of Kalimantan [43]. Tanjung Pura is one of the vassal areas of the Majapahit Kingdom as found in the Negarakertagama Book, the Pararaton Book, the Waringin Putu inscription and the Tome Pires Note. In the Negarakertagama book written by Prapanca, Tanjung Pura is mentioned in verse 14 along with other areas [45].

The Waringin Putu inscription also states that at the time of King Wijaya Parakrama Wardhana, Tanjung Pura was under the authority of Dyah Suragharini as the leader of the region [43]. The word “Tanjung Pura” is also mentioned in the Palapa Oath of Gajah Mada as contained in the Pararaton book as one of the areas to be conquered [40]. Based on the evidence above, Tanjung Pura has links with the Majapahit Kingdom. This is reinforced by the local history of the community, which states that their area was a former center of government. The existence of the Tanjung Pura Kingdom is estimated to have existed around the 12th century AD. During this period, socio-cultural developments were influenced by the Hindu-Buddhist religion. Therefore, it can be inferred that the site of the Negeri Baru Temple has a relationship with the Tanjung Pura Kingdom.

B. LHAOS (Learning History Activities on Site) Based on Videography with the Use of the Negeri Baru Temple Site

History learning covers a wide range of material in a limited amount of time. Therefore, teachers are required to present this material in a concrete and innovative way to ensure effective learning. The implementation of effective learning must be supported by various components, which are essential requirements for learning. These include basic competencies, indicators, objectives, students, teachers, materials, methods, models, learning resources, learning media, time allocation, evaluation instruments, class conditions, and the learning environment. These components are interconnected and cannot be separated in the learning process. The learning model is an often-overlooked component in teaching, but it is crucial as it guides the learning steps. The videography-based LHAOS (Learning History Activities on Site) model, utilizing the Negeri Baru Temple, is one variation of a learning model that can be used in history learning.

1) Analysis

The development of the videography-based LHAOS model was carried out based on an analysis which included three aspects: curriculum, potential/needs, and goals. The results of the analysis found that the curriculum had sufficient basic competencies that are relevant to the lives of Indonesian society today. Therefore, based on the material analysis of the curriculum, this development is in accordance with the applicable curriculum and in line with the learning objectives [46–48].

The second analysis is a needs analysis which is described in Table II:

<table>
<thead>
<tr>
<th>Availability of supporting facilities</th>
<th>Urgency of local material content</th>
<th>Learning model needs</th>
<th>Videographic media needs</th>
</tr>
</thead>
<tbody>
<tr>
<td>88%</td>
<td>95%</td>
<td>90%</td>
<td>98%</td>
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</table>
The table above shows the conclusion of the significant results from the needs analysis, which indicates that the videography-based LHAOS model is in need of development. The lowest percentage among the four indicators is in the availability of supporting facilities. This is due to the limited access to video shooting equipment such as cameras and drones. This highlights the urgent need for the development of this learning model considering the rapid technological advancements in education.

The next analysis relates to the purpose of the developed model. The aim of the videography-based LHAOS (Learning History Activities on Site) utilizing the Negeri Baru Temple is to introduce and expose students to historical sites that have connections to Hindu-Buddhist material in their area directly. Additionally, this model will also provide concrete and real-life experiences for students. By directly observing and learning, it is hoped that students will actively participate in learning activities, leading to more interesting, effective, and interactive learning [49]. Involving students directly can improve their skills in assimilating, adapting and reconstructing knowledge. The students can be shown and explained the history of the Kingdom of Tanjung Pura as a vassal of the Majapahit Kingdom and its relation to the Negeri Baru Temple site from various perspectives. This allows students to gain new insights about the Negeri Baru Temple site, along with the conceptual and contextual knowledge provided. Learning directly at the source is an effective step that can provide a complete understanding [50].

Based on the above analysis, the development of the videography-based LHAOS (Learning History Activities on Site) learning model utilizing the Negeri Baru Temple is an innovative step in incorporating local historical studies of Hindu-Buddhist material. The use of this learning model is expected to increase student interest and improve learning outcomes in history subjects.

2) Design

In the design stage, the videography-based LHAOS is designed to be implemented collaboratively by students and teachers. This will allow to produce a series of active and interactive learning activities. An outdoor learning scheme is adopted, emphasizing learning that takes place in learning resources, in this case, historical sites [30, 51].

Good learning is based on a structured and systematic learning implementation plan [52, 53]. The LHAOS learning scheme, as outlined above, is carried out in the field or outdoors, specifically at the Negeri Baru Temple site. The schematic above illustrates that the videography-based LHAOS activity consists of three stages: orientation, exploration, and reflection (Fig. 4). This learning scheme requires students to actively participate in learning, beginning with paying attention to the teacher's introduction, forming groups, exploring sites, conducting discussions, and engaging in reflection activities.

This learning process utilizes a student-centered approach, with students as the main focus of the learning experience [54]. Teachers act as stimulators, facilitators, and motivators in the learning process [55]. The teacher helps coordinate the process with management and secures permissions for the use of the Negeri Baru Temple site. During the early stages of interaction activities between teachers and students, the teacher opens the lesson and communicates its objectives, provides learning directions, and gives instructions. Clear instructions and directions are crucial for the success of learning activities [56]. Then, the teacher continues by providing an appreciation and brief material about the Negeri Baru Temple site, which serves as a very important stimulus. This introductory material serves as basic knowledge and is provided to students before conducting the exploration and videography process [57] (Fig. 5).

In the second stage, students are given full freedom to carry out exploration activities by utilizing all the resources available to them. Students conduct searches, observations, interviews, and documentation on the Negeri Baru Temple site in detail and thoroughly to obtain in-depth information from various aspects. At this stage, the teacher only accompanies and provides assistance to students who are having difficulties. By providing flexibility, it is hoped that students will be motivated and enjoy learning with appreciation, so that learning runs effectively and optimally [58]. In this stage, students also integrate the conceptual knowledge previously obtained with contextual knowledge in the field.

The third stage is the reflection stage or the final stage of learning. In this stage, the teacher facilitates students to discuss the findings of the site exploration. Students within a class conduct discussions and exchange information from the results of each group's study, play the videography. In addition, the discussion also reflects on the function and existence of the Negeri Baru Temple site. The teacher is tasked with providing feedback and strengthening the results of student discussions. After reflection, the teacher gives instructions on project assignments resulting from the site exploration and provides notes on the results of the discussion.

Through site exploration activities, students'
understanding of historical sites in their environment will increase, along with their awareness of sustainability aspects. Students’ understanding will be built strongly through the exploration of the Negeri Baru Temple site and the learning experiences they undertake. The videography-based LHAOS activity at the Negeri Baru Temple is an effective solution to the problems of learning history. Exploration of the Negeri Baru Temple site is an effective use of local historical sites that can increase students' interest and motivation in studying history. Indirectly, learning history in the field also instills critical and chronological thinking, as well as character values, in students.

3) Development

From the design above, it was then developed into a product that is a videography-based LHAOS (Learning History Activities on Site) learning model. The development is carried out in stages and carefully to obtain maximum results. The first step is to collect sources and explore the historical sites of Negeri Baru Temple, which will be used as material content in this learning model. Then, the mapping and compiling of the material, taking videos on the site, as well as editing and repairing the videos, then uploading them on the YouTube platform so that students can access them online anytime and anywhere using smartphones or PC devices. This learning model product is used in the learning process in class, as can be seen in Fig. 6 below.

The implementation of the videography-based LHAOS model was carried out with student trial subjects, consisting of 100 respondents, and 10 teachers and lecturers. This stage was carried out to provide an assessment of the effectiveness of using the model. Respondents’ assessment is categorized into eight aspects related to effective learning. The results can be seen in Fig. 8 below:

The diagram above illustrates the achievements of the implementation of the videography-based LHAOS model in terms of seven assessment aspects. For the aspect of the use of technology in learning, as a form of learning innovation, it achieves an average rating of 95.5. Secondly, related to the aspect of local wisdom as learning values in this model, it achieves an average rating of 89. Thirdly, for the aspect of contextual learning adaptation, it reaches an average of 94. Fourthly, for the role of the model in creating active and participatory learning, students achieve an average of 91. Fifthly, for the ease of implementation of the model by students and teachers, it reached an average of 96.5. Sixthly, it relates to the aspect of clarity of the learning syntax in the model, which reaches an average of 98. Seventhly, the aspect of comprehensiveness of the model, which is supported by various aspects, reaches an average of 94. Apart from that, it is also supported by aspects of completeness of the model support, such as evaluation instruments and others, which reach an average of 96. In general, from the results of the videography-based LHAOS model trials, it gets an overall final score average of 93.4. Therefore, based on the assessment criteria, it can be categorized as very effective.
Based on the test results above, it can be seen that the use of the videography-based LHAOS learning model can be said to be very effective in improving the quality of learning. Very effective can be interpreted as influencing, impacting, and bringing effect. The aim is to have the effect of changing students' understanding of the material being taught. In the future, the learning model presented needs to be maximized so that the function of the learning model can be carried out optimally.

There were several suggestions and inputs from the trial participants regarding the eight aspects of the assessment they provided. These suggestions become evaluation material for the developer to make revisions. This is done to achieve a product that fits the needs of the field. The suggestions given are qualitative data in nature because they are in the form of special notes about something that is lacking or that can be added for several elements that are considered to be optimized. The recommended evaluation materials include: 1) Making the details for the site exploration syntax more detailed; 2) Equipping the evaluation instrument with multiple choices for critical thinking levels; 3) Adding a description of supporting equipment; 4) Optimizing the criteria for videography devices. These four suggestions were used as evaluation material for further application in the final product of the videography-based LHAOS model.

IV. CONCLUSION

The results of this study answer the problems described in the background. The results of developing this model proved to be capable of being an innovative solution to history learning. In this study, the resulting learning model was LHAOS (Learning History Activities on Site) based on videography. It combines outdoor learning, videography technology, and local historical sites. The site used in this study is the Negeri Baru Temple site in Ketapang Regency, West Kalimantan Province. The utilization of this site aims to foster the character of critical and chronological thinking, curiosity, attractiveness, motivation, enthusiasm, and interest in student learning. The ADDIE model development research is the development model used in this research with the stages of analysis, design, development, implementation, and evaluation. The videography-based LHAOS learning model can change history learning from conceptual to participatory and innovative contextual. This model optimizes learning by visualizing and analyzing students of the Negeri Baru Temple site. The development of this learning model has produced a learning model product that has been validated by experts with an average value of 90 or in the very decent category. In addition, an effectiveness test was also carried out with field trials with a result value of 93.4 or in the very effective classification.

The results of each stage of development using the Research and Development method, from analysis to implementation, show significant results with very effective criteria. Through the evaluation stage, the final product—the output of this research—can be developed. It can be concluded that the developed learning model is very feasible and effective in achieving learning objectives. This model also increases students’ interest in learning history and is accompanied by high motivation and interest in learning.
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