

Research Article

Need Analysis of Innovative Media Development Based on Local History of the Agung Temple in South Kalimantan

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Abstract.

This article aims to analyze the current needs of history learning since the introduction of the Independent Curriculum. Some of the latest needs that researchers get include, the renewal of materials and learning media. Following up on some of these needs, researchers present alternative solutions for history learning media with various appropriate technologies. Some of the appropriate technologies in question include 3D objects, 360 virtual media, augmented reality, and e-Books (OMAE). In the process of making and implementing it as an alternative solution, OMAE products are presented with content based on local history that is not Javacentric, namely the Agung Temple in South Kalimantan. In order to facilitate researchers in achieving these goals, qualitative research methods with an intrinsic case study approach was used as a basis for this research. The results obtained from this method, shows that OMAE products can be declared effective along with many benefits. In addition, with the presence of local history-based material content that is not Javacentric, it can make students wiser and able to maintain the harmonization of national and state life.

Keywords: learning media, innovation, independent curriculum, Agung Temple

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1. INTRODUCTION

History is a very important lesson for a nation, especially the Indonesian nation. By studying history, students can develop historical thinking skills which are linearly capable of making them wiser [1]. This historical thinking ability and wise attitude can be maximized in various ways, one of which is through innovation in history learning. The innovation in history learning is related to the novelty of materials and media [2].

The important role of historical learning innovation in practice has not been fully applied [3]. This can be observed from the low innovation of learning media [2], teaching materials are still Javacentric [4], and the lack of enthusiasm of students in learning history [5]. Based on some of these problems, linearly it can cause the image of boring history learning to be stronger [6]. To overcome these problems, researchers offer

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innovations in the form of 3D Objects, 360 Virtual Media, Augmented Reality, and E-Books (OMAE). OMAE products also offer non-Javacentric material content, namely about the Agung Temple in South Kalimantan.

The presence of OMAE products for history learning in the classroom can provide various benefits. First, OMAE's innovative and psychologically interactive products can help increase students' interest and motivation to study history [7]. The second benefit is that it can help students understand the material because previously abstract and textual information becomes clearer with the help of 3D objects [8]. The next benefit is that students get a realistic and contextual exploration experience in real time through a virtual environment [9]

The various experiences that students get from the virtual environment are a stimulant for the development of their imagination about teaching materials. The teaching material in question is about the context and value of the life of the people of South Kalimantan in the Hindu-Buddhist period through the Agung Temple in South Kalimantan[9]. Another benefit obtained through OMAE products is the presence of novelty in teaching materials. The novelty is based on the fact that so far the material has not found space in the study of Indonesian history in the classroom. Whereas the Agung Temple is one of the important buildings that describes the life of the people of South Kalimantan in the Hindu-Buddhist period [10]. This can be seen from the absolute dating results which show that the Agung Temple is an ancient building from the 8th century AD. Meanwhile, based on the relative dating, it is estimated that the Agung Temple dates from the 7th century AD [10].

The presence of educational policy products in the form of the Independent Curriculum is an opportunity for researchers to strengthen arguments about OMAE innovation with material about the Agung Temple in South Kalimantan. This is based on a derivative rule from the Independent Curriculum which provides space for schools and teachers to develop learning based on environmental conditions [6]. So with this potential, students in South Kalimantan can more easily understand the context and value of life from the Hindu-Buddhist period. On the other hand, this potential makes it easier for students in South Kalimantan to internalize the values of life [11].

The Independent Curriculum can also be used as a basic argument through the derivation of the learning concepts in it. This refers to the concepts of differentiated learning and deep learning. Through these two learning concepts, it is possible for teachers to design a scheme of learning activities starting from the selection of materials and media based on efforts to appreciate the diversity of students. In addition, through

these two concepts, teachers can also plan essential material content to make it easier for students to achieve learning goals and internalize life values [6].

In order to strengthen the argument regarding the selection of OMAE product innovation as an alternative solution, the researcher then presents several similar previous studies. The purpose of presenting several similar previous studies is to find the novelty element of OMAE product innovation. The first research is the work of Basri et al., (2021) [12] entitled "Utilization of ICT-Based Learning Media in Local Historical Learning". From the first previous research, it was found that the output was still a conceptual framework, while in this study the output produced a product in the form of OMAE media.

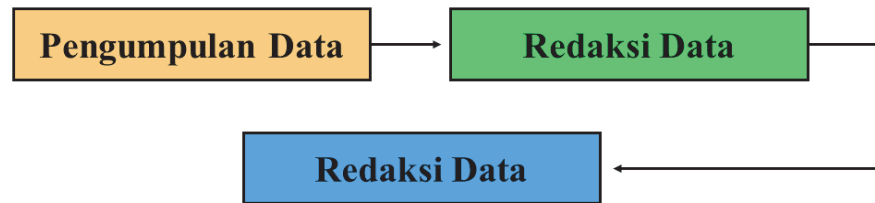
The next analysis was carried out through a comparison with the second previous study from Selim, et al., (2021) [13] entitled "Digitizing Heritage as an Integrated Sustainable Tool of Informative Interpretation of the Past: The Case of Umm Qais Heritage in Jordan". From the second previous research, it was found that novelty in terms of technology was presented. In previous studies, the two outputs produced were in the form of multimedia containing ArcGIS story maps, 360 tours, 3D modeling, and short films, while in this study the outputs were 3D objects, 360 virtual media, Augmented Reality, and e-books.

The next analysis was carried out through a comparison with the third previous study from Putra et al., (2021) [14] entitled "Application of 360 Video Technology on Google Cardboard Based on Virtual Reality Using the MDLC Method". From the third previous research, it was found that novelty in the form of 360 virtual media technology development as a means of presenting a virtual environment for the Telkom Institute of Technology Purwokerto Campus. In contrast to previous research, the development of 360 virtual media on OMAE products provides a more concrete explanation of the Candi Agung site, providing a virtual picture according to its original condition.

2. METHOD

This activity is carried out using qualitative research methods with an intrinsic case study approach [15]. The choice of the method and approach was based on the scope of the study that specifically addressed the application of the Independent Curriculum in history learning. In addition, the chosen qualitative method with an intrinsic case study approach was carried out with the aim of describing specifically a case study of the use of OMAE products with material about the Agung Temple in South Kalimantan for historical learning based on local values. In order to collect data related to the selected case studies, the researcher used a literature study technique. The research

data obtained from the literature study were then analyzed by procedures (1) data collection, (2) data reduction, and (3) data analysis and presentation [16] (see Figure 1).



1. Pengumpulan Data = Data collection
2. Redaksi Data = Editorial Data

Figure 1: Research Flow.

3. RESULTS AND DISCUSSION

The presence of the Independent Curriculum in the education system in Indonesia has a significant impact on history learning. This can be observed from the concept derived from the curriculum which shows a tendency to override historical narratives that are political, chauvinistic, and biased in interpretation. The narrative of history learning in the Merdeka Curriculum is currently directed towards a more ideal condition, namely a comprehensive and multidimensional narrative [6]. One of the topics with a comprehensive and multidimensional nuanced narrative category that can be taught in class is the study of local history.

So far, local history learning has received less space in teaching practice and in textbooks. Whereas the study of local history is part of knowledge about all aspects of human life from the past that can be taken value for present and future life [17] [11]. On the other hand, local history can also be stated as something that is close to student life and has enormous potential to be connected with current conditions [18].

Local history, apart from having less place in learning, is also often misunderstood. This refers to the locality context offered in textbooks so far, which is more Javacentric [4]. Therefore, with the presence of the Independent Curriculum, it is hoped that it can give a new nuance in history learning. On the other hand, the presence of the Independent Curriculum can also be used as a basis for presenting material content about the Agung Temple in South Kalimantan as a material innovation.

The argument for choosing the material content about the Agung Temple in South Kalimantan is based on various considerations. First, the environment around the Agung

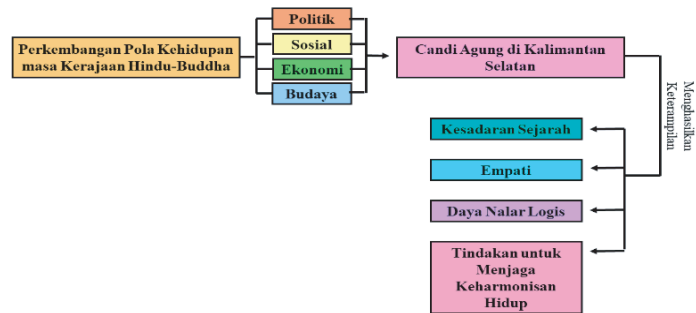
Temple contains many findings that show the life and culture of the people across the ages. In several excavations, many prehistoric artifacts were found, mainly from the paleometallic period [10]. Second, the Agung Temple site is one of the artefactual markers that shows the life and culture of the people of South Kalimantan in the Hindu-Buddhist period. This refers to the results of absolute dating (absolute) and relative dating. From the results of absolute dating, information is obtained that the Agung Temple is a monument from the early 8th century AD, while in the relative dating it is estimated that the Agung Temple is from the 7th century AD [10].

Based on some of the considerations previously mentioned, it can be concluded that the material content about the Agung Temple in South Kalimantan can be used to develop student empathy. The process of developing empathy is carried out by contextualizing past events with the lives of the people of South Kalimantan in the present [17]. These efforts can linearly stimulate the emergence and development of awareness about the continuity of events from the past to the present, thus creating empathy for social realities, including the relics of the Agung Temple in South Kalimantan.

Empathy that has grown and developed in students can then be used by teachers to practice the ability to internalize the value of life. The results obtained from the process of internalizing these values are expected to be used to maintain and pass them on to the next generations. In addition, with the empathy that students have, it is also hoped that they can make them accustomed to using their reasoning logically so that they can create harmony in the life of the nation and state [17].

The ability to empathize, logical reasoning, and actions to maintain harmony can be further strengthened if in using OMAE products the teacher provides direction to students. The form of direction in question is to present historical background information from the Agung Temple in South Kalimantan and then contextualize it with life in the present. The process of contextualizing the material can be done by explaining the geopolitical and geoeconomic picture in the Archipelago since the prehistoric period has become a meeting place for various ethnic groups. The logical consequence of the meeting was the presence of various new cultures and their acculturation (see Figure 2). From this explanation, teachers can use the Agung Temple in South Kalimantan as an example to make it easier for students to understand teaching materials [19].

The presence of the Independent Curriculum is not only an opportunity for material content innovation, but also an opportunity to upgrade learning tools. Specifically, the researcher's intention about learning devices that get upgraded is learning media. In the process of upgrading learning media, it is necessary to analyze the needs for infrastructure and resource capabilities first. Some of these analytical activities were



1. Perkembangan Pola Kehidupan masa kerajaan Hindu Budha = The development of the pattern of life during the Hindu-Buddhist kingdom
2. Politik = Politic
3. Sosial = Social
4. Ekonomi = Economy
5. Candi Agung di Kalimantan Selatan = The Agung Temple in South Kalimantan
6. Kesadaran Sejarah = historical consciousness
7. Empati = Empathy
8. Daya Nalar logis = logical reasoning
9. Tindakan untuk menjaga keharmonisan hidup = action to maintain the harmony of life

Figure 2: The Path of Achieving Several Skills After Understanding Teaching Materials.

carried out with the aim of making OMAE products more appropriate to the needs in the classroom[20].

Effective OMAE products, their presence is very important for students and teachers in the classroom. This is because every novelty that is presented psychologically affects the interest and motivation of students to study history [7]. Moreover, almost all schools and students currently have the resources and capabilities to process digital technology. So it can be concluded that the presence of an independent curriculum not only provides a new nuance in history learning, but also tries to change the conventional learning paradigm into IT-based learning [21].

Following up on such conditions, the researchers then developed learning innovations that could be used as markers of progressive change. The innovations presented can also be used as alternative solutions to overcome various problems in history learning, especially those related to the lack of media innovation and the lack of accommodation for local history studies. The innovations in question are 3D Objects, 360 Virtual Media, Augmented Reality, and E-Books (OMAE). The developed OMAE product presents local historical material content that is not Javacentric, namely about the Agung Temple in South Kalimantan (see Fig. 3).

The application of OMAE products in history learning in the classroom has many advantages compared to other similar products. In a study written by Efendi, et al., (2018) [22], for example, the products produced are only in the form of historical learning media with the ability to display 3D objects through the help of cards as markers. Other

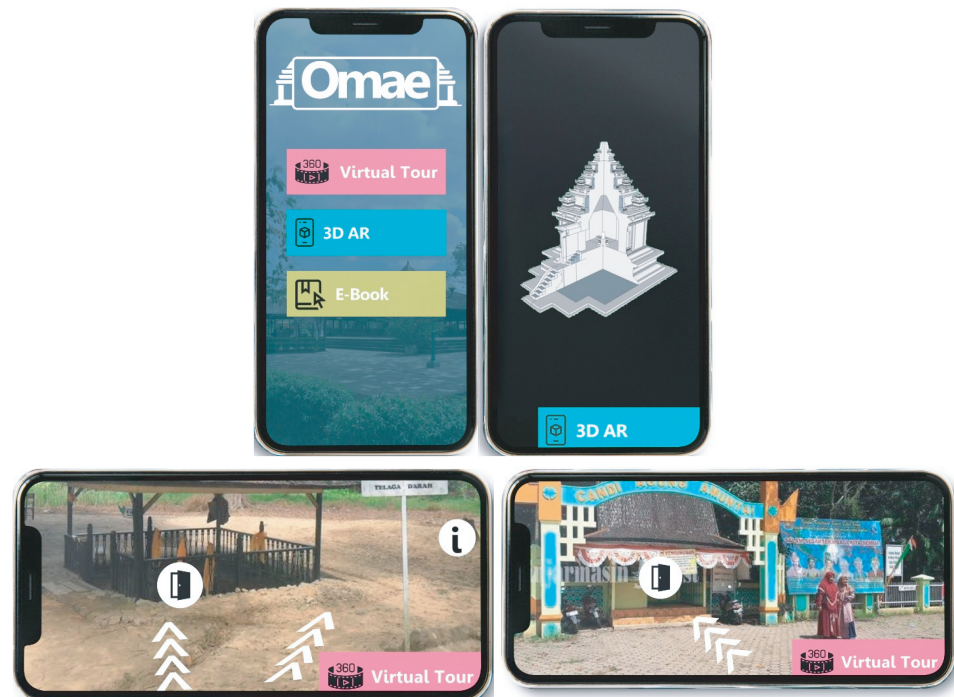


Figure 3: Prototype of OMAE Product.

differences can also be observed and compared with the output product of the study developed by Hoon & Shaharuddin, (2019) [23], namely a 3D hologram product. The differences in the output of the 3D hologram product with OMAE include the embedded technology innovation and the content of the material. The 3D hologram product was developed as a supporting tool for understanding plant growth material, while OMAE was developed as a supporting tool for historical material for the Hindu-Buddhist period.

Another advantage of OMAE products can be observed through each of the benefits possessed by each technology. For example, 3D object technology with its projection is able to clarify the concept of knowledge that was previously only abstract and textual [9]. In addition, with 3D Objects, the interaction between students and teaching materials becomes more intense. Moreover, the 3D projection object in the OMAE product is a site that has not received space in learning or textbooks, namely the Agung Temple in South Kalimantan.

Several other advantages that can be found from OMAE products are the ability to provide a new atmosphere for learning, exploratory experiences, and contextual experiences through virtual environments from Virtual 360 Media and Augmented Reality [24]. With the presence of the virtual environment, it can linearly help students in their efforts to reflect and internalize the values of life from the material about the Agung Temple in South Kalimantan [25]. The various advantages mentioned earlier certainly

require a means to be packaged and presented to students to make it easier to use. So in practice, OMAE products are then packaged in the form of an E-Book. The benefits of E-Books in relation to OMAE products are that they make it easier to use without any limitations of space and time [7].

The presence of OMAE products as learning innovations must of course be presented with proper learning planning. Moreover, the content of the material presented has novelty and significant meaning for learning history at school. In addition, with appropriate learning planning, the potential of OMAE products can still be maximized. This is because learning media is not something that stands alone. Learning media basically still needs users and systems that accommodate the use of these products so that learning activities become more efficient [26].

Based on this urgency, the researcher then began to develop an appropriate learning plan for OMAE products. In the process of preparing learning plans, there are several activities that must be systematically carried out. First, make adjustments to the Learning Outcomes (CP) presented in the Independent Curriculum. The next step is to adjust and analyze CP to formulate Learning Objectives (TP) and Learning Objectives (ATP) as a concrete form of efforts to maximize the benefits of OMAE products [6]. After the preparation of the TP and ATP, the next step that can be done is to plan the implementation of learning and its assessment (see table 1).

TABLE 1: List of Learning Outcomes (CP), Learning Objectives (TP), and Learning Objectives (ATP) on Materials About the Agung Temple in South Kalimantan.

Element	Competency	Material	TP	ATP	Attitude Dimension
History Process Skills	Analyzing the development of life patterns during the Hindu-Buddhist period and interpreting it in the form of works of art	The development of life during the Hindu-Buddhist kingdom	Students are able to analyze the development of life patterns during the Hindu-Buddhist period independently or collaboratively and then interpret it in the form of works of art.	Political, social, economic and cultural developments during the Hindu-Buddhist kingdom in South Kalimantan	Fear of God Mutual Cooperation Creative Independent

4. CONCLUSION

Provide a statement that what is expected, as stated in the "INTRODUCTION" section can ultimately result in "RESULTS AND DISCUSSION" section, so there is compatibility. Moreover, it can also be added the prospect of the development of research results and application prospects of further studies into the next (based on result and discussion).

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