

The Innovation of Digital Learning Media Based on Local History: A Conceptual Model

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Abstract. Local history learning plays a very important role in the teaching of history in school. Through local history, students can understand about historical events and the development process of human life along with the noble values in it starting from the environment around them. However, reality nowadays shows that historical learning tends to merely orient to national history. This condition leads to a low level of students' knowledge and understanding of local history. The situation is made worse by the rapid development of technology, information, and communication at the current 4.0 industrial revolution so that local history is ignored progressively. This study aimed to compile a conceptual model of digital learning media innovation based on local history as an alternative solution in improving students' understanding of the local history. This research was qualitative research conducted by literature review method. The results of this study showed that digital learning media was proven to have positive influences in improving the achievement of learning competencies on cognitive aspects. The conceptual model of digital learning media based on local history produced in this study is expected to be an alternative solution to improve the students' understanding of the local history.

Keywords: History Learning, Local History, Digital Learning Media, Conceptual Model

1. INTRODUCTION

In the middle of the rapid flow of industrial revolution 4.0, as what we are facing this day, history plays an important role in teaching the process of human life development by the time along with all the noble values and attitudes in it. History is a subject which instills knowledge, attitudes, and values regarding the process of change and the development of Indonesian and world society from the past to the present [1]. There are so many lessons can be taken from the values of the process of change and human development which then can be used as reflections in having a deal with today's issues. In addition, the essence of historical learning is certainly to train students to be able to think historically and to understand deeply about history. Teaching history in schools aims to provide students the ability of thinking historically and comprehending history [2]. Through historical learning, the students are expected to be able to

think chronologically in order to understand the process of change and development of whole aspects of people's lives so that it can shape the nation's identity in the life of the world community.

The historical learning referred in this case is not merely covering the Indonesian national history but the whole histories included into the parts of the life journey of the nation such as local history. Local history is a part of changes and development of Indonesian society in a smaller area, but it still has the same essence for people living on the area completed by all the cultural values, struggles, and local wisdom. The learning of local history needs to be introduced to the students so that they can recognize their local identities and respect other ethnics or regional identities in Indonesia by considering the principle of learning and the stage of student development [3]. The introduction to the historical events in their area is very important for the students because, with this, they will recognize the processes and changes occurred [4]. This explains that the students can easily understand the dynamics of people's lives in their environment, a place where they are indirectly feeling involved since they have certain attachments and closeness on it. Thus, learning local history becomes an important element in the process of learning history whereby emphasizing knowledge on aspects of the locality of a historical event, the students can recognize history by starting from their closest environment.

Based on several descriptions explained above, we can see how the urgency of local history learning at school really is. Nonetheless, the reality shows that the history learning implemented in schools today predominantly tends to be merely oriented to the national history written in textbooks, without involving any more efforts from the teachers to explore more local historical events in their environment, so this condition leads to a low level of students' knowledge and understanding of local history [3] [5] [6]. The majority of students do not know about their local history. As the result, the local history became neglected and began to be forgotten, especially by the younger generation. This is certainly made worse by the current world conditions where the role of learning history in expressing local wisdom is often obscured by the rise of global culture and technological sophistication [7]. But, actually, the local history can be used as an enrichment material or reinforcement of historical materials which are interrelated by using a locality approach so that the students can further interpret the meaning of a historical event because they feel like they are parts of it. For this reason, an alternative solution needed is to integrate local history in learning of history in the classroom.

Basically, there are several alternative solutions which can be used to solve the problem of local history learning. One of them is to take an example of local history events and then illustrate as well as connect it to the national history being taught [8]. This condition can be realized through local history-based learning media innovations. Learning media created can be used to support the process of integrating local history learning materials. Learning media was chosen because the portion of local history learning material is as an enrichment and reinforcement for existing learning material of history- not as main material - so that by using learning media, the points and essences of local historical material can be conveyed but not more dominant than the main historical materials taught. Meanwhile, if we take a reflection on the current condition of the world - where the industrial revolution 4.0 is happening - so the learning media innovations made must be able to answer the existing challenges. In this all-digital era, learning media should also be digital-oriented.

This research is a new innovation conducted in order to find the most appropriate means for implementing local history learning in schools. This research can be used as a starting point for developing local history-based digital learning media in optimizing the process of teaching local history.

2. METHOD

This research is qualitative research conducted by literature review. The study was conducted by reviewing books and journals related to the concepts and objectives of the study to be compiled to form a conceptual model of digital learning media based on local history. The data obtained was analyzed by descriptive exploratory analysis method.

3. RESULT AND DISCUSSION

The relationship built into the conceptual model in this study starts from the influence of digital learning media on the cognitive aspects of students, which then underlies the assumption that the innovation of local history-based digital learning media is an alternative solution to improve the students' understanding of the local history.

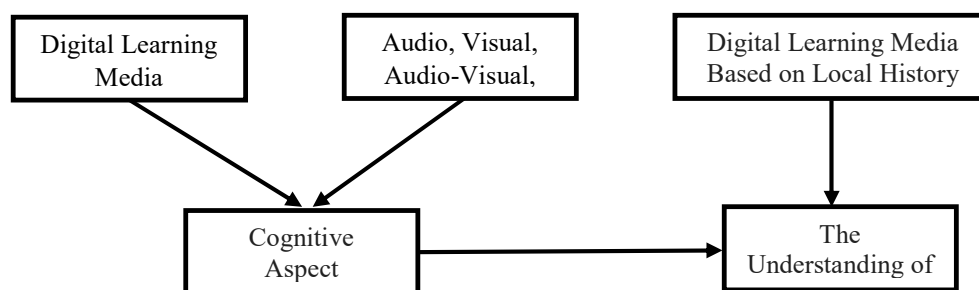


Figure 1. Correlation of Digital Learning Media, Digital Learning Media Based on Local History, Cognitive Aspects, and the Understanding of Local History

Learning media is every person, material, tool or event that can create conditions that allow learners to receive knowledge, skills, and attitudes [9]. In addition, learning media can also be interpreted as everything that is used to channel messages and can stimulate the mind, feelings, attention, and willingness of students so that it can encourage the occurrence of deliberate, purposeful and controlled learning [10]. Based on the opinions expressed about the learning media it can be concluded that the learning media is all the tools used in the learning process, with the intention to convey the message (information) learning from the source or the teacher to the recipient in this case students and allow communication between the teacher and students can go well.

Learning media consists of various types ranging from media in the form of text, audio, visual, audio-visual and so on. Along with the development of the times, learning media continues to experience change. In the digital era and industrial revolution 4.0 as it is today, learning media has evolved into digital-oriented media. Digital forms were chosen as a response to the high mobility of people in fast-paced times like today. Digital media allows students to access learning from anywhere and anytime. In history learning, digital learning media makes the learning process more enjoyable; with the use of digital learning media students can directly witness the shape of historical heritage objects (not just imagining them), so that in the end the quality of historical learning can increase and become more interesting [11].

Each type of learning media basically has a different influence on the achievement of learning objectives. Edgar Dale explained in his theory about the "Cone of Experience" as follows:

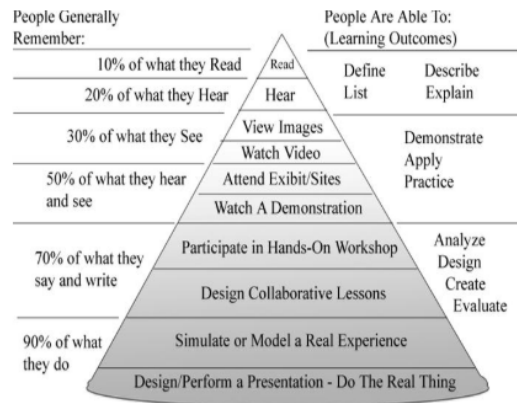


Figure 2. Edgar Dale's "Cone of Experience" [12]

Edgar Dale's cone of experience above explains the classification of learning outcomes based on learning experiences related to the learning media used. The learning experience depicted in the cone of Edgar Dale is arranged - from the bottom up - starting from the level of experience that is concrete to experience through the most abstract symbols [13]. Based on the cone of Edgar Dale's experience, it is known that learning media that involves many senses has a higher percentage of learning outcomes so that the learning media created in the conceptual model of this study seeks to meet these criteria with local history-oriented content. The use of instructional media is highly recommended in the learning process in order to maximize the effectiveness of learning [14]. In any form of learning communication, the role of the media is needed to further increase the effectiveness of achieving goals or competencies [15]. This shows that the learning process will occur if there is communication between the recipient of the message and the source of the message through a media or intermediary.

In several studies that have been conducted, learning media are proven to have a positive influence on the achievement of learning competencies, one of which is cognitive aspects [16] [17]. Cognitive aspects according to Anderson and Krathwohl - revised results from Bloom's Taxonomy - are divided into six categories, namely remembering, understanding, applying, analyzing, evaluating and creating [18]. The explanation shows that 'The Understanding of Local History' which is the domain of the conceptual model of this research is one part of the cognitive aspect. The positive influence of learning media on cognitive aspects includes the increase in student learning outcomes [19] [20] [21], learning achievement [22], and conceptual understanding [23]. In addition, learning media are also proven to have a positive impact on improving student history learning outcomes [24] [25] [26] [27].

Based on the description presented above, it is generally understood that learning media (digital) is proven to have a positive influence on improving the achievement of learning competencies in cognitive aspects. This can be a basic assumption to make local history-based digital learning media innovations to improve the students' understanding of local history. Digital learning media innovations developed can be in the form of applications or other digital media with content in the form of local history learning materials. With the implementation of these innovations, it is expected that the learning media produced can be an alternative solution to overcome the problem of low the students' understanding of local history. Other advantages derived from innovation in local history-based digital learning media include the means of

architecture heritage learning [28], improving quality of history learning through local history [29], and promoting local history and culture [30].

The conceptual model made in this study refers to the cognitive theory of multimedia learning by Richard Mayer. The basic assumption of Mayer's theory is that human working memory has two sub-components that work in parallel (visual and auditory) and learning can succeed if both of these channels are used for processing information at the same time [31]. In this study material about local history was integrated into the conceptual model of the cognitive theory of multimedia learning. The conceptual model produced through this research can be described as follows:

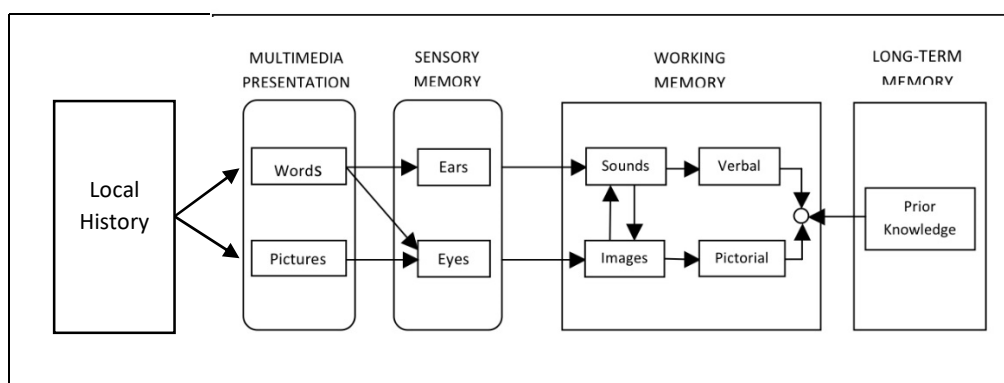


Figure 3. The Conceptual Model of Digital Learning Media Based on Local History

Figure 3 describes the interaction between multimedia based on local history and cognitive processes that show the mind's work in processing information during learning through the media. Based on Mayer's theory model there are three assumptions that underlie the interaction between multimedia and cognitive processes during learning. The three assumptions are [32]:

Table 1. The Assumptions about the Interaction between Multimedia and Cognitive Processes during Learning

Assumption	Definition
Two Channels	In information processing, humans have two separate channels to get information verbally and visually. Both channels have different tasks and abilities.
Different Capacity	There is a limited amount of information capacity available in verbal and visual channels. Each channel has a limited capacity in processing information obtained.
Active Process	Learning requires cognitive processes in the visual and verbal channels. The use of both channels in learning will lead to an active process in processing the information entered on both channels.

Based on table 1, it can be seen that the effectiveness of cognitive processes can occur when two channels (verbal and visual) are used simultaneously. This shows that the conceptual model

of digital learning media created in this study can be one of the effective media in implementing the learning process because it has been integrated between the visual and verbal channels [33].

4. CONCLUSION

Digital learning media has a positive influence on improving the achievement of learning competencies on cognitive aspects. Digital learning media can be composed of several types of media, does not rule out the possibility of including - in this case - digital learning media based on local history. The influence given to cognitive aspects can also occur in several categories of cognitive aspects such as aspects of understanding, including the understanding of local history.

The conceptual model of local history-based digital learning media produced through this research is a modification of Mayer's cognitive theory of multimedia learning model. The resulting conceptual model combines visual and verbal channels in integrating local history using digital learning media in the learning process. The conceptual model is expected to be an alternative solution to improving the students' understanding of local history. In addition, from the conceptual model that created, it is also expected that there will be other advantages that can be obtained related to the media as supporting the implementation of the learning process. This research is still limited to a conceptual model. The real step that must be taken in the next research is to conduct development research to create a tangible form of local history-based learning media.

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