

Perception of History Education Students on the Use of Virtual Reality Tour 3D Media of the Wings Palace in Pelalawan

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Abstract

This research is based on the results of the development of the Theasys Virtual Reality Tour of Pelalawan Wing Palace software. This research aims to see the extent to which students' perceptions as research objects assess the results of products that have been designed. So that becomes the initial basis for using this product in the community (school or campus). The research method used in this research is descriptive quantitative. The data collection techniques used in this research were questionnaires and interviews. Based on the results of data analysis of students' perceptions of the Virtual Reality Tour of Pelalawan Wing Palace, the five indicators of media product suitability (material, illustrations, media appearance and attractiveness) through a Likert scale questionnaire were at an average score of 5 and 4, which means they were rated as good and Very good. It can be concluded that the product is suitable for dissemination and use in the community (school or campus) as additional teaching material for historical material, especially Riau Malay History material.

Keywords: Theasys, Virtual Tour, Perception

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Introduction

We now live in the Cyber Era filled with social networks, virtual communities, artificial humans, 3D worlds, digital applications, and collaborative games that are able to change the way we see the world. The most important thing in this era is our ability to record, share, and disseminate information. According to Remondino and Campana (2014, p. 113), creative technology has brought new breakthroughs in human behavior and interaction with others and the surrounding environment. With various features on social media, video calls that can be made via smart watches, to virtual reality interactions that feel so alive.

This is the reality of today's life that is highly dependent on digital devices. With the development of the era that continues to change, the education system must adapt. In this modern era, an important issue in the world of Indonesian education is the use of digital learning, especially when the academic community is faced with conditions that encourage education to be carried out online.

Not only that, the use of efficient digital learning materials. With the increase in education through the internet, virtual education systems are increasingly developing, such as virtual reality, virtual stores, and virtual companies where users can access learning through digital devices and the internet. This shows that the world is currently heading towards the Industrial Revolution 4. Society 5. 0 and zero. Almost all community activities have now adopted digital technology and the internet (Ismavida et al., 2022).

The development of Information and Communication Technology has made a significant contribution to humans in various sectors, including in the field of education. With the development of this situation, we can see changes in the way of learning that has undergone many developments, both personal learning methods, learning media, and learning processes (Husnita & Junaidi, 2023). The development of information technology in the world of education now includes the use of Virtual Tour 360 to present historical tourism objects.

In line with technological developments, according to Nunuk Suryani (2016), it is time for history learning to change. Not only recording the sequence of events, but also discussing the values that can be learned from these events. One of them is the values of historical awareness. That way, historical awareness is not limited to tragic memories of the past such as war, defeat, and destruction (Syahputra, 2020). One of the important values is awareness of local history.

Therefore, in an effort to introduce local history through the latest learning media and answer the challenges of education in the era of digitalization 5.0, history learning in schools and on campuses, especially in history learning, must develop. One of them is by using 3D Virtual Reality (VR) Media which is applied to the Istana Sayap site in Pelalawan Regency, Riau Province. By collaborating Learning Media and Local Historical Heritage, it is believed that it can increase the passion for history in schools and universities.

Basically, Virtual Reality 3D (hereinafter abbreviated as VR 3D) is a technology that allows users to interact with a computer-simulated environment in a virtual world that is capable of generating a three- or even four-dimensional atmosphere, making the user feel as if they are directly physically involved in the environment.

In short, the importance of the position of history learning is in shaping students as the young generation who will continue the nation's struggle (Sardiman, 2015, p. 2). However, in fact, the negative paradigm towards history learning still exists. There are still often erroneous interpretations of the implementation and meaning of history learning among the community today. Problems in history lessons from time to time are always related to traditional teaching methods (Suryani, 2013, p. 211). Learning history that only relies on memorization without including character building tends to encourage thoughts that tend to be practical and pragmatic.

However, there are limitations in terms of learning resources and media, especially in Indonesia. Many times, the traditional method of using textbooks and lectures is not fully able to inspire maximum learning interest, especially in history lessons (Adiyono et al., 2023). The reason is because history teachers find it difficult to package local history content so that it can be aligned with the material that has been set in the national curriculum (Fahrizal, 2023).

In line with the main study of this study, namely to see students' perceptions in using the Virtual Tour Istana Sayap application in Pelalawan. Perception occurs when users of the five senses begin to receive stimuli, then arrange and interpret them to understand what they are feeling (Nafendani et al., 2021). Perception is a process in which we organize and interpret patterns of stimuli in the surrounding environment. The main application of online learning is the unstable network connection, the costs are getting higher, learning becomes less effective, and the workload becomes too heavy. An individual's determination to use technology products is greatly influenced by the views they have.

This research is expected to help achieve the objectives of learning history on campus and in schools, so the author tries to see how high the level of perception of students in the History Education study program at Riau University is, as evaluation material for researchers to disseminate this application in the community (schools or campuses).

Research Methods

This research was conducted with a descriptive approach based on quantity. Mardalis (2007) explains that quantitative research is conducted by testing hypotheses or solving problems based on theoretical deduction, with the use of statistical data for measurement. Descriptive quantitative research is a type of research conducted by describing and analyzing a phenomenon objectively.

According to Sugiyono (2012, p. 29), this study applies a descriptive approach with the aim of providing an overview of the object or research results. The definition of descriptive according to Sugiyono is a method that functions to provide an overview or description of the research object based on data or samples that have been collected, without making general conclusions. In this research approach, a quantitative approach is used starting from data collection, data interpretation, to presentation of the results. This approach is also related to research samples that emphasize current issues and actual phenomena with research results in the form of significant data.

The population used in this study was 39 students, namely students from the class of 2024. The sample used was 39 students by distributing a Likert scale observation questionnaire.

Research Result

Products Under Assessment

Virtual reality tours, often referred to as panoramic tours, are simulations of a specific location made up of multiple 360-photographs. In various ways, images, videos, and other multimedia elements can be connected to each other to create a cohesive and engaging display. Here is the concept of creating a Virtual Tour of the Istana Sayap and the snapshot of the product display that was assessed regarding student perceptions.

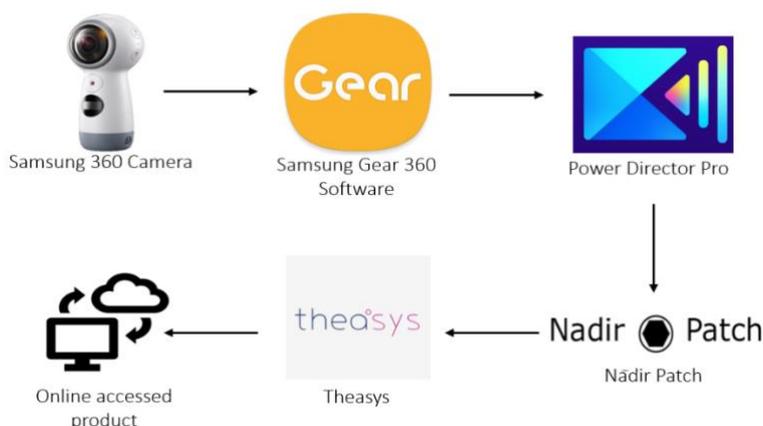


Figure 1: The Concept of Virtual Reality (VR) Tour by Theasys Software

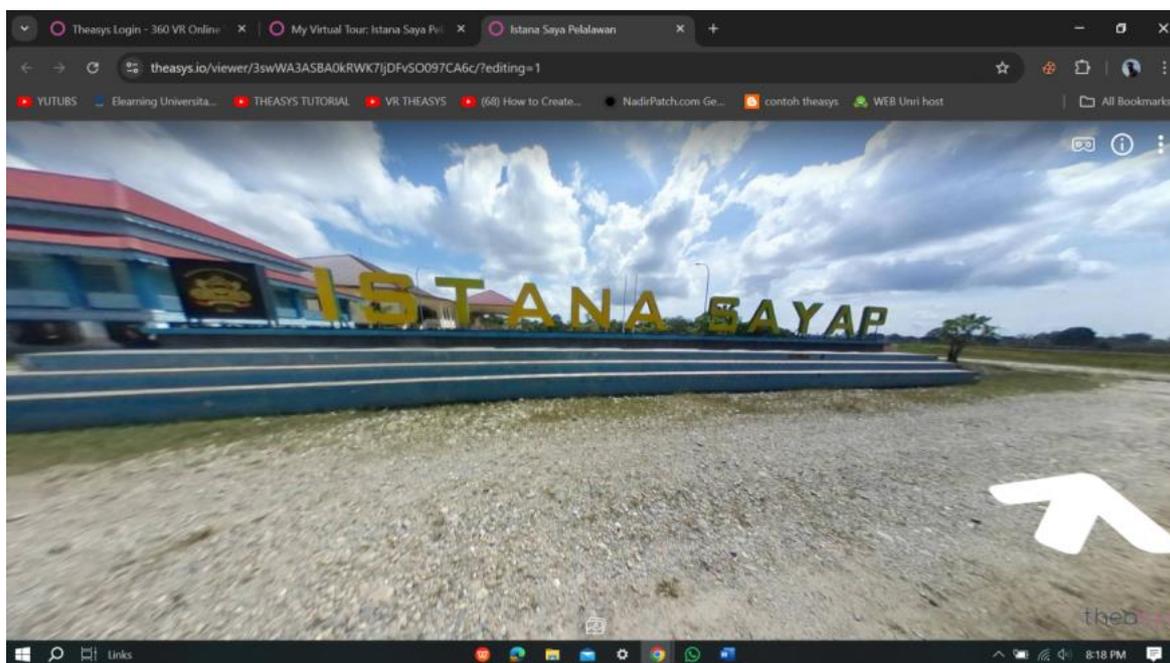


Figure 2: Istana Sayap’s Gate on VR Tour

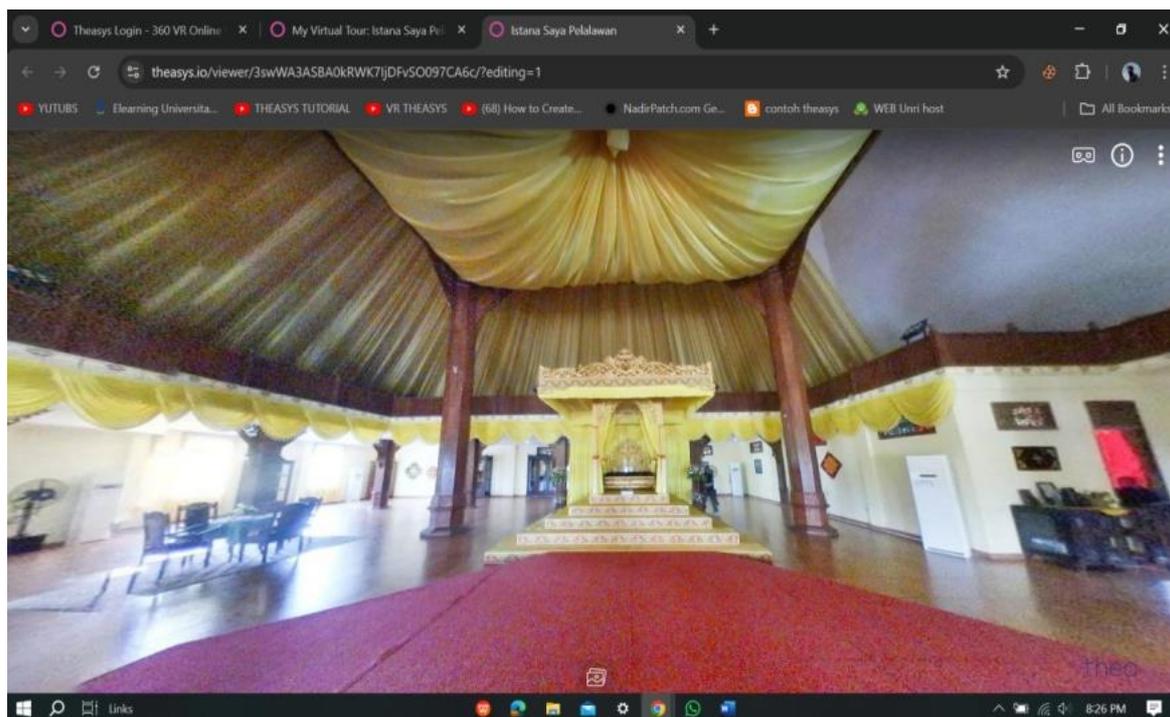


Figure 3: The First Room of the Wing Palace Functions as a Throne

Data Description

In accordance with the established research variables, the description of the research data results explains the perception of students in the History Education study program towards learning through the Istana Sayap Virtual Tour Application media. In this study, researchers will evaluate how students in the History Education Study Program, University of Riau assess this product from the student's perspective. Data were obtained from distributing questionnaires to 39 respondents, then processed and analyzed.

Overview of Student Perception Assessment Results

Perception assessment is seen from the media or product suitability indicators of material, illustrations, media appearance, and attractiveness (Winarno, 2009).

Based on the results of the analysis of student perceptions of learning through the Virtual Tour Application media, Istana Sayap is in the Good category. This is evident from the results of the analysis of the percentage level, 55% answered good, 45% answered very good, and 2% considered it quite good. Based on the results of the analysis, it can be concluded that in general, student perceptions of learning through E-Learning media in History Education Study Program Students are in the Good category. This can be seen in the following table and histogram:

Table 1: Student Perception Assessment Data

No	Aspect Evaluation	Statement	Average	Information
1	Material	a. The Virtual Tour of Istana Sayap application used can support the material to be taught.	5	Very good
		b. The Istana Sayap Virtual Tour application is used in accordance with learning objectives.	4	Good
		c. The use of the Istana Saya Virtual Tour Application is in accordance with CPMK	4	Good
2	Illustration	a. The Virtual Tour Application Media of Istana Sayap that is used can make it easier for students to understand historical material in online learning.	5	Very good
		b. The Virtual Tour of Istana Sayap application that is used can present videos that are true to the original to support history learning.	5	Very good
3	Media View	a. The appearance of the Istana Sayap Virtual Tour Application can attract students' attention and support students' online learning activities.	4	Good
		b. The Istana Saya Virtual Tour application displays attractive colors, images and visuals.	4	Good
4	Attractiveness	A. The use of the Istana Sayap Virtual Tour Application can increase students' enthusiasm for learning during online learning.	4	Good
		B. The use of the Istana Sayap Virtual Tour Application can help lecturers deliver history lessons effectively to students in the classroom.	5	Very good
Total number			2470	
Average			4.2	

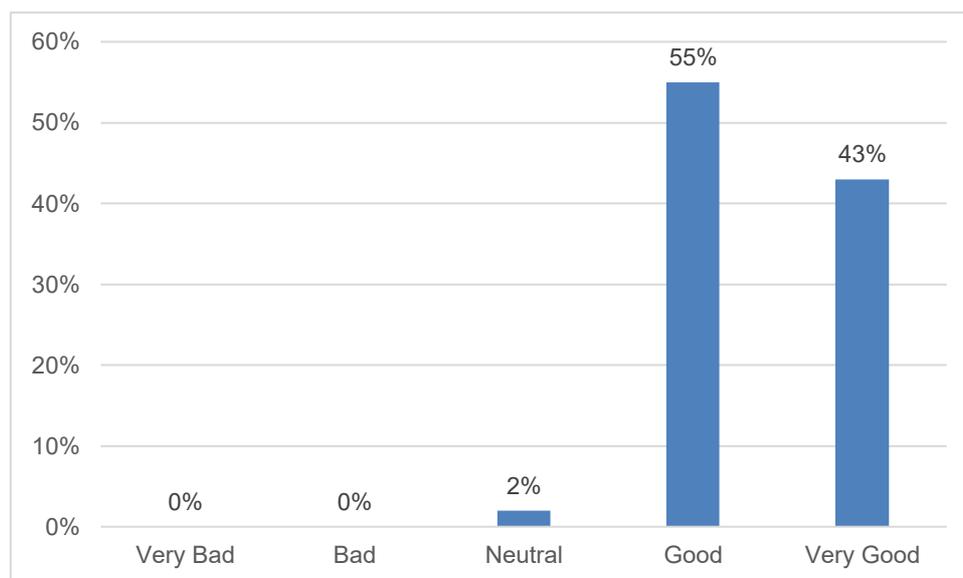


Figure 4: Students Perceptions Percentage

Based on the results of the perception assessment obtained by students, the Istana Sayap application media in Pelalawan received a score of 4.2. This shows that the product developed is included in the good category. Thus, this development media is worthy of being distributed. Then in the presentation of the percentage also shows that there are 55% who answered good, 43% answered very good, and only 2% felt sufficient.

Conclusion

Based on the results of the analysis of student perception data on the Virtual Reality Tour of Istana Sayap Pelalawan, from the five indicators of media product feasibility (material, illustration, media display, and appeal) through a Likert scale questionnaire, the average score is 5 and 4, which means it is considered good and very good. It can be concluded that the product is worthy of being disseminated and utilized in the community (schools or campuses) as additional teaching materials for History material, especially for the Riau Malay History material. In the description of the data from this study, it is explained that each data indicator about student perceptions of learning through E-Learning media consists of 5 indicators, namely: 1) Material, 2) Illustration, 3) Media Display, 4) Appeal.

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