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The Virtual Reality Socialization and Training: Virtual Tour

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Abstract

The rapid world of virtual reality (VR) technology provides opportunities for school promotion media using VR widely, namely Virtual Tour training. FIRST This also challenges SMK MUTU to understand better the effectiveness of VR experiences in encouraging better attitudes towards promotional objectives and shaping visiting patterns. SECOND: This basic procedure is technical for taking panoramic images, identifying the resulting panoramic images owned, and observing 360-degree changes when processed in 3DVISTA software. THIRD If the panoramic image has become 360o, then make it into a series of images so that when processed, it will become a single image that is more alive in 3D like Google Street View, when in compile Virtual Tour will provide an experience where users can interact with a 3D image. FOURTH how positive are the consequences of the feeling of presence in the VR experience for the first time, the feeling of being in a virtual environment increases the peak of enjoyment of VR users both the increased touch of VR technology, such as being there results in a stronger sense of liking and preference at the destination. A positive attitude change leads to a higher level of intention to visit.

Keyword_1; VR_SMK MUTU, Virtual Reality Technology, 3D Vista SMK Mutu, VR Promotion, VR Experience

1. Introduction

One of the significant technological developments that are expected to have a major impact on the tourism industry today is Virtual Reality (VR). Recent innovations in VR platforms, devices, and tools for content production have allowed VR to evolve from a niche technology favored in the gaming community into an everyday experience (Dedi Jubaedi et al., 2020). The availability of cheap VR viewers such as GoogleCardboard, Oculus, or the like and the abundance of VR content make it easy for anyone to experience a virtual city tour of sightseeing, promotional events, and the world of education (Levonis et al., 2021). VR is a powerful marketing tool because it can offer a more attractive image of the destination in the promotion to potential visitors by giving them an idea of what it was like to be there. Then since the pandemic started, everything has been closed – universities, restaurants, sightseeing, etc. The impact of the pandemic is exhaustion and boredom because people can't go out to have fun too many restrictions on the rules of going out (Herman & Sherman, 2019). However, with virtual reality technology, places

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will appear in the virtual world using the 3D Vista Virtual Tour, even in the comfort that will make you feel comfortable during a picnic without having to meet face to face(Caro, 2021).

It was mentioned by utilizing virtual reality technology, researchers would place prime virtual spots in the MUTU Vocational School in Tegal City and be able to mobilize the advantages of virtual reality technology in the field of informatics. Psychological research has attempted to explain the reasons behind VR's effectiveness in shaping behavioral and behavioral responses to technological stimuli (Erin Ariandis Baura, Virginia Tulenan, 2018), focusing primarily on the concept of presence. VR is a friendly environment where users can capture information through sensory processes, including visual, auditory, and kinesthetic, allowing users to see real-world representations of the depicted environment (Kabassi et al., 2019).

In addition, the VR environment provides access to information that supports user actions in the environment. For example, people and the earth can move (Napolitano et al., 2018). Therefore, the user's perception of the VR environment depends on the actions they can take. This theory leads to a sense of being “introduced” or “evicted” into the modern environment. The essence of the travel and promotion experience is to meet the existing facilities in “reality” at SMK MUTU Kota Tegal. Users experiment with the beauty of school buildings and landscapes; Some point primarily to a desire for visual perception in remote areas (Panduputri & Novani, 2021), while others to a deeper meaning of ending social interaction in the destination area (Darmadi et al., 2021). Successfully promoting actions such as seeing a destination directly will make users feel as if they are present at that location and themselves and their destination (Darmadi et al., 2021).

2. Method

This section describes a situational analysis that includes the following. In the world of education at SMK MUTU, Tegal City is a high school that is currently a leading school in the field of research. However, since the Covid-19 pandemic, there has been a decline in new student admissions due to limitations on face-to-face activities. So it is challenging to promote the school. Promotional media used by SMK MUTU Kota Tegal include school websites and social media such as Facebook, Instagram, Twitter, TikTok, etc.

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This new alternative Virtual Reality as a promotional supporter as well as this program is made so that prospective students who want to register can see all school facilities without meeting face to face considering that the Covid-19 pandemic situation is still there, with the help of VR technology as if they were in reality so that the information sought easy to get.

Some of the problems that SMK MUTU Kota Tegal has problems with its promotions include: (1) Can't do face-to-face promotions due to the COVID-19 pandemic, so they have limitations in their activities. (2) The promotional media used is still the same as the previous year, so it does not have a change in shape that impacts the results of the number of new student admissions. (3) Does not have a creative team in the field of promotion, so the promotional media used are not conveyed properly.

SMK MUTU Tegal City is a school that excels in research but has had problems promoting new student admissions since the covid-19 pandemic. The existence of limitations on face-to-face activities impacts the number of students who enter the MUTU Vocational School in Tegal City because they are still using the old promotional media, which tends to increase and decrease the acceptance of new students so that it is felt less than optimal. Priority issues that were mutually agreed upon include: (1) A new strategy is needed for promotion in the era of the Covid-19 pandemic, where cultures such as face-to-face meetings during this pandemic are replaced by virtual. (2) The limitations of human resources in schools in making online media promotions of various kinds are an obstacle, so schools have difficulty introducing schools to the community.

The implementation of this community service activity uses two methods: the lecture method and practical exercises (drill practice), making promotional media in a website-based computer laboratory using 3D Vista Tour software. The lecture method is carried out by the proposing team visiting the school. Destination76ating to the school, namely to socialize the training development of making promotional media using 3D Vista Tour software. Lecture activities carried out considering that there are still many teachers who have difficulty in conveying the material in class each at the time of learning. Based on the opinion (Sudjana, 2011), the drill method is an activity of doing the same thing over and over again in earnest with the aim of perfecting a skill so that it becomes permanent.

The steps for this activity are: (1) The training activities are scheduled for 1 (day) from 08.00-12.00. The implementation of the 3D Vista Virtual Tour learning assistance is

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carried out regularly offline by implementing strict health protocols. (2) The initial stage of training reviews the importance of learning media because it will motivate students to learn. Explain the meaning of virtual reality. (3) The second stage of training is to train partners in creating a virtual reality 3D Vista Virtual Tour. Create accounts, retrieve data objects, and process data until the results. (4) The final stage of training is evaluation. This activity is intended as an indicator. Training success. (5) The evaluation stage of this training is in the form of a short-term evaluation carried out by filling out the questionnaire and continued by providing enrichment in the form of training assignments for participants to consistently complete and perfect the process of making a virtual reality.

Taking pictures with the Panorama Technique on an Android Smartphone, if you don't have a 360o camera taking pictures, there is a technicality, namely using a tripod then. The tripod is rotated clockwise 360o then does the same thing. Still, in the next shooting, the locations must be interrelated, like taking pictures on google street-view so that the images of each other become a single unit and are connected. If the panoramic image data is ready, import it into Vista 3D software with the hope that the result will be a Virtual Tour.

3. Results and Discussion

The solution to the problem of this community service activity is to make digital promotional media in the form of virtual reality as a medium for promoting local schools, especially at SMK MUTU, Tegal City. This community service activity is carried out in several stages: Learning the basics of virtual reality. We are delivering material about virtual reality and the introduction of programs or software to create a virtual reality, which is carried out by learning in class under the guidance of several lecturers.

Practice creating virtual reality. We are introducing 3D Virtual Reality software, taking panoramic image objects and processing them into 3D Virtual Reality. Objectives, Benefits, and Expected Impact of Activities. Some of the objectives of this activity are as follows: Provide training on creating and using virtual reality as a digital promotional medium and provide skills in making promotional media with digital technology. The expected benefits are: The students can promote media for their school; New promotional media for educational institutions, namely virtual reality technology. The expected impact of this activity is to improve schools' digital promotional media in the

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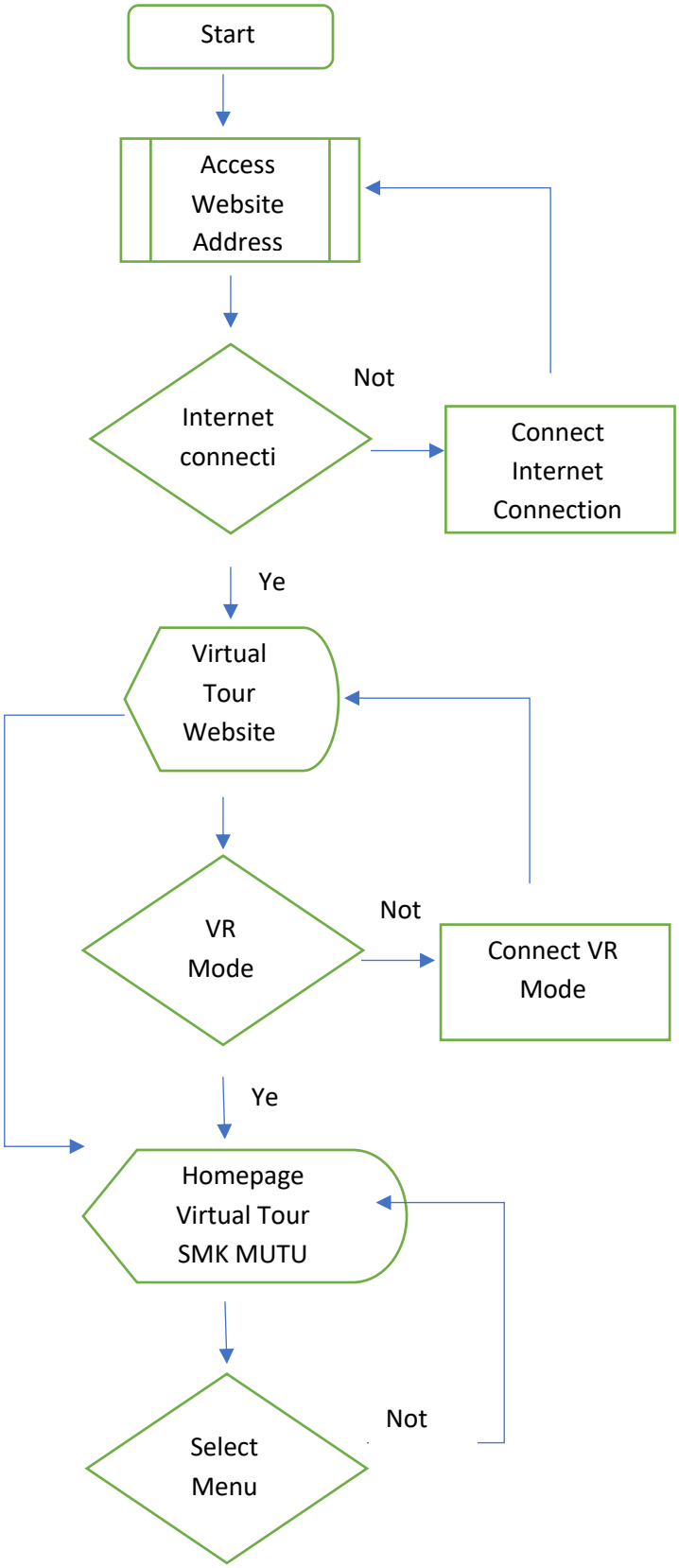
form of making a virtual reality. The expected output targets of this community service are as follows: Creating digital promotional media, namely virtual reality. Increase acceptance of new students with promotional media. Virtual Tour Website Flowchart:



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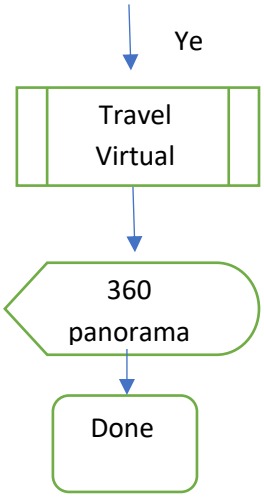

Table 3.1 Cost

No	Name of activity	Cost			
		Volume	Unit	Unit price	Total (Rp)
1	VR product drafting coordination meeting	1	Package	Rp.700,000	Rp. 700,000
3	Instrument Making	1	package	Rp. 300,000	Rp. 300,000
4	Secretariat	2	package	Rp. 600,000	Rp. 1,200,000
5	Virtual reality validation test stage 1	2	package	Rp. 300,000	Rp. 600,000
6	Phase 2 virtual reality validation test	2	package	Rp. 300,000	Rp. 600,000
7	Revised product manufacturing coordination meeting	1	package	Rp. 700,000	Rp. 700,000
8	Virtual reality final product creation	2	package	Rp. 2,000,000	Rp. 2,000,000
9	Making progress reports	1	package	Rp. 700,000	Rp. 700,000
10	Submitting accredited journal articles	1	package	Rp. 1,800,000	Rp. 1,800,000
11	Coordination meeting for report preparation	1	package	Rp. 700,000	Rp. 700,000
12	Final Report Making	1	package	Rp. 700,000	Rp. 700,000
				Total	Rp. 18,600,000

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Table 3.2 Computer Specifications

Component	Description
Processor	Intel Core 5
RAM	8GB
VGA	GeForce NVIDIA 4GB
SSD	512GB
OS	Windows 11

Vista 3D Virtual Reality Creation Process Figure

Figure 3.1 (a) 3D Vista Application Home View

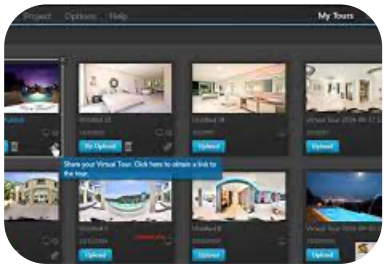

Figure 3.2 (b) Import Panorama Image

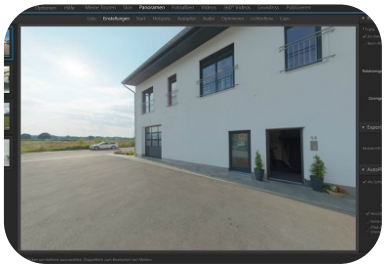

Figure 3.3 (c) Display after Import Panorama

Figure 3.4 (d) Provision of Hotspots as part of Information

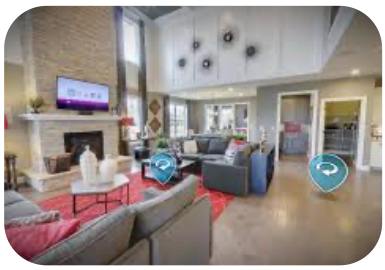

Figure 3.5 (e) Hotspot Display

Figure 3.6 (f) Hotspot Granting View

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Figure Implementation of Community Service Activities

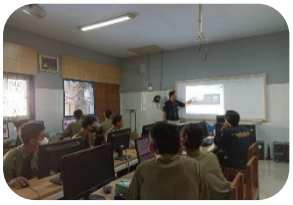

Figure 3.7 Explaining VR Theory

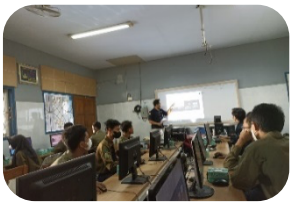

Figure 3.8 Panorama Image Import Preparation

Figure 3.9 Students Practice Making VR

Figure 3.10 Acknowledgements to Academic Affairs

4. Conclusion

Activities for introducing school life to new student admissions in the Tegal City MUTU Vocational School are limited in their implementation due to the endless Covid-19 pandemic. All activities involving many people must be carried out virtually to avoid spreading the Covid-19 virus. With this policy, an application is needed that can describe the virtual environment of the MUTU City Vocational School in Tegal, so a virtual reality digital media is made, namely Virtual Tour. The user interface in this application is designed using a 3D Vista application to make the resulting display more attractive and interactive. Virtual tour application created using 360º panoramic multi-image, where 360 panoramic images are taken using a 360 camera at several locations of all facilities at the MUTU SMK Tegal City—making a virtual tour application using the 3DVista application. The application development method used in this research is Multimedia Development Life Cycle (MDLC). From the results of laboratory tests on the website-based virtual tour application created, this application can display the environment and facilities owned by the MUTU City Tegal Vocational School, flow according to its functionality, and be used by students to recognize their school environment.

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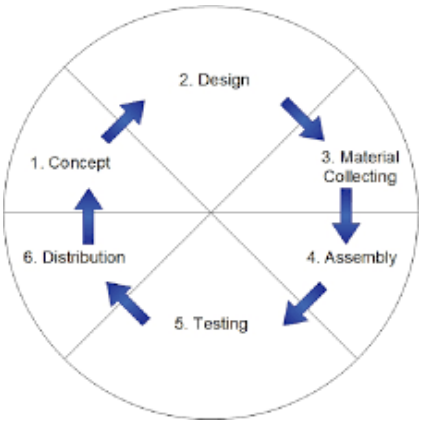

Figure 11. Multimedia Life Cycle Image

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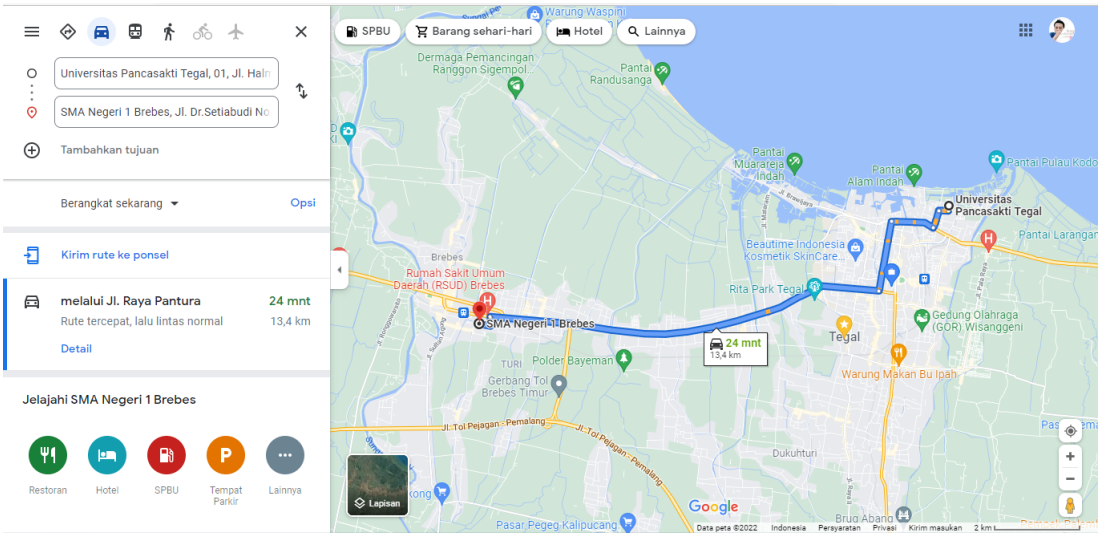

Figure 12. Map of the partner location

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