

Introduction of Local Tourist Destinations through Virtual Reality to Increase Tourist Attractiveness in the Digital Era in Village Bulukumba District South Sulawesi Province

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ABSTRACT

The introduction of local tourist destinations through Virtual Reality (VR) technology is an innovative solution to increase tourism attractiveness in the village of Bulukumba Regency, South Sulawesi, in the digital era. The background of this research is based on the low level of digital literacy and technology utilization among the community and tourism actors, as well as the lack of promotion of potential tourist destinations. The purpose of this service is to realize the application of VR to introduce local tourism more interactively and provide solutions to challenges such as accessibility and limited promotion. The implementation method includes the identification of tourism potential, preparation of educational materials, training in VR content creation, and virtual tour simulations. This activity involves local communities, tourism actors, and local governments. The training includes making 360° videos, using VR devices, and digital marketing strategies. Interim results show the enthusiasm of participants in utilizing VR, although there are obstacles such as limited basic technological knowledge and the busyness of the community. This service concludes that VR technology has great potential to increase the promotion of Village tourism more attractively and sustainably. Continuous training support and collaboration with local communities are the keys to successful VR implementation. The outputs of this activity include publication articles, video documentation, and VR content of tourist destinations that can be used as effective promotional tools on digital platforms.

INTRODUCTION

Digital literacy has become an essential skill for every individual, especially for teachers who play an important role in preparing the next generation. Along with the rapid development of technology and the integration of technology in education, teachers' ability to understand, use, and utilize digital technology in the learning process has become increasingly urgent. Digital literacy enables teachers to utilize various digital devices, platforms, and resources in the learning process. With digital literacy, teachers can access information faster, present materials more interactively, and use tools such as videos, digital presentations, and learning apps. This can improve the quality of learning, making it more interesting, varied, and relevant to

students' needs in the digital era. According to research, the appropriate use of technology in education can increase students' learning motivation, enrich the learning experience, and enable more collaborative and creative teaching methods (Beetham & Sharpe, 2013; Lutfi, 2021).

Digital literacy is not only important in the context of teaching but also in terms of administration and evaluation. Digitally literate teachers can utilize various applications for classroom management, student assessment, and reporting of learning outcomes. For example, using platforms such as Google Classroom or Microsoft Teams can help in managing assignments, communicating with students, and assessing learning outcomes more efficiently. Technology-

based evaluation also allows teachers to access real-time data on learning outcomes, providing faster and more targeted feedback to students.

Digital literacy opens up access for teachers to continue learning and developing their professionalism. Many professional development resources, such as online courses, webinars, and online education platforms, can be accessed by teachers to improve their skills. Online learning platforms such as Coursera, EdX, or Future Learn offer a variety of free or paid training that teachers can join from all over the world, allowing them to keep their knowledge and skills up to date without geographical restrictions.

Technology has become an essential part of modern education, including at the early childhood education level. However, not all teachers, especially in rural areas like Bone District, have adequate skills in utilizing technology. In addition, digital literacy is also an urgent need in the 21st-century education era. To realize the vision of technology and literacy-based education, it is necessary to upskill teachers so that they are able to face these challenges.

Technological advancement affects various sectors of life, including education. Nowadays, the use of technology in the learning process is a must, especially in realizing 21st-century education. However, reality shows that most teachers, especially at the early childhood education (ECE) level, do not have adequate skills to utilize technology optimally. This is also the case for teachers at Wahda Aisyah Kindergarten, Bone Regency. Most of them still lack mastery of technology and digital literacy, so their learning has not optimally utilized technology.

Technology has been proven to improve the teaching-learning process through interactive approaches that can attract students' interest in learning, especially in early childhood education (Das, 2021; Mardiana, 2020;). The application of smart technology in early childhood classrooms can help teachers facilitate the learning process more interestingly and enjoyably. Digital literacy refers not only to the ability to use technology but also the ability to find, assess, and filter relevant and correct information in the digital era (Jenkins, 2009; Addai-Mununkum, 2023). For teachers, digital literacy is essential to facilitate students in dealing with an increasingly technology-based learning

environment. The concept of teacher capacity building involves intensive and continuous training to improve skills in learning. Research by Avalos (2011) shows that teacher capacity building focused on technology integration can have a significant impact on improving the quality of education.

METHODS

The implementation of community service related to the application of Virtual Reality (VR) to improve tourism and Islands (Dampang) can be done through various methods involving education, technology, and collaboration with local communities, government, and tourism industry players. The following are the stages and methods that can be applied to community service programmers

Identification of Location Potential and Needs

Before starting the application of VR, it is important to conduct field observations to identify Dampang's tourism potential and existing needs. This activity involves a survey of leading tourist destinations in Dampang, such as Kapoposang Island, Camba-Cambang Island, Salemo Island, and cultural sites such as Leang-Leang Cave. Discussions with local communities, local government, and tourism industry players to find out the challenges they face, both in terms of promotion, accessibility, and tourism management. Assessment of technological infrastructure readiness in the area, including the availability of internet networks and other supporting devices needed to implement VR.

Preparation of Educational and Training Materials

Based on the identification results, the preparation of educational and training materials is an important step. The aim is to increase the understanding of the community and tourism actors in Dampang about the potential application of VR in the promotion and management of tourist destinations. The materials compiled include:

1. Understanding and benefits of VR technology in tourism.
2. Creation of simple VR content that can be implemented by local communities, such as 360° videos of local tourist destinations.
3. Digital tourism marketing strategies using VR technology to attract domestic and international tourists.

4. Technology-based ecotourism management to ensure sustainable tourism. This educational material is presented in a format that is easily understood by the community with a practical approach.

Implementation of VR Training and Workshop

This stage is the core of the community service program, where training and workshop activities on the creation and use of VR technology are carried out. Some implementation methods that can be applied:

1. VR content creation workshop: Local communities and tourism actors are taught how to create 360° videos or simple VR simulations of featured tourist attractions. They also learned how to use 360° cameras, edit videos, and upload them to digital platforms.
2. Training on the use of VR tools: Training is provided on the use of VR devices such as headsets and supporting software to introduce immersive tourism experiences to potential tourists.
3. Virtual tour simulation: Participants are invited to conduct virtual tour simulations to introduce the direct benefits of VR for tourism promotion. For example, a simulation of underwater tourism on Kapoposang Island or a prehistoric cave tour of Leang-Leang in virtual form.

VR Content Development of Tourism Destination

Together with local communities and tourism industry players, the service team can help create professional VR content for tourist destinations. Some activities that can be done:

1. Creation of 360° VR videos featuring leading tourist attractions such as island panoramas, beaches, coral reefs, and cultural sites.
2. Development of interactive narratives to explain the history, culture, and ecosystems that exist in these tourist destinations through VR.
3. Collaboration with local creative communities to enrich VR content, for example by displaying traditional arts or local legends told through virtual
4. The resulting content can later be used as digital promotional tools uploaded on social media, and websites, and presented in tourism exhibitions.

Socialization and Promotion of VR Technology

After training and content creation, the next step is to socialize and promote VR technology for tourism to the wider community. Socialization activities include:

1. Local exhibition: Organizing a tourism exhibition in Dampang, where the community, tourists, and industry players can try VR experiences from various tourist destinations in Dampang.
2. Digital media campaign: Using social media and digital platforms to introduce the results of VR content that has been created. For example, 360° videos of Kapoposang Island or Leang-Leang Cave can be published on YouTube, Instagram, or VR platforms such as Oculus.
3. Collaboration with travel agents: Involve travel agents and online platforms to market VR-based Dampang tourism experiences. Thus, Dampang tourism destinations can be promoted more widely to potential tourists.

Monitoring and Evaluation

To ensure the success of the service program, regular monitoring and evaluation is carried out. Some of the monitoring steps that can be taken are:

1. Reviewing the use of VR technology by local communities and tourism actors, and evaluating its effectiveness in attracting tourists.
2. Conduct surveys to the community and tourists regarding their experience in using VR content.
3. Improve the content and approach based on feedback from tourists and VR users.
4. This evaluation may also include measuring the economic impact resulting from the use of VR in Dampang tourism, such as increased tourist numbers or improvements in destination promotion.

Continuous Mentoring

After the service program is completed, it is important to provide continuous assistance to the community and tourism actors in Dampang. This assistance aims so that they can continue to use and develop VR technology for tourism promotion and management. This activity can include:

1. Technical consultations related to problems encountered in the use of VR devices or the creation of new content.
2. Community capacity building through advanced training, especially in digital marketing and technological innovation.

3. Collaboration with local governments and investors to expand the scope of the use of VR in tourism promotion at the regional and national levels.

The application of Virtual Reality for tourism improvement in Dampang through community service can be done with a structured method, starting from potential identification, and training, to content development and promotion. This program not only increases the attractiveness of Dampang tourism but also empowers local communities to be more involved in technology-based tourism management. With VR, tourism in Dampang has a great opportunity to develop and be recognized more widely, both at the national and international levels.

RESULTS AND DISCUSSION

Some of the findings in the implementation process include the lack of Tourism Promotion and Marketing. Limited tourism promotion is a significant problem for Dampang. Many tourist destinations in the region have great potential but are poorly known outside the South Sulawesi region. The lack of promotional campaigns and the lack of use of digital media to introduce tourist attractions are obstacles to attracting more domestic and international tourists.

Lack of Tourism Supporting Facilities Most tourist destinations in Dampang are still not equipped with adequate tourist facilities, such as hotels, restaurants, and tourist information centers. Travelers visiting Dampang often find it difficult to find comfortable accommodations or adequate places to eat, especially on the islands.

This affects the tourist experience and makes them less interested in visiting again. **Local Community Involvement** Local community involvement in tourism development in Dampang is still relatively low. Many people have not been fully involved in the tourism industry, either as tourism object managers, service providers, or creative economy actors. In fact, by increasing the participation of local communities, tourism can become more sustainable and provide a significant economic impact for them. In addition, the lack of training and education about tourism for local communities is also an obstacle to more professional tourism management.

Digital Literacy Training

Provide intensive training to improve teachers' digital literacy skills, including an introduction to digital platforms, learning applications, and digital tools that can be used to enhance learning. The training covers the wise and safe use of the internet and how to utilize online resources to develop learning materials. The Expected Outcome is that teachers have a better understanding of how to utilize digital information and technology in the learning process, increasing efficiency and creativity in teaching.

Use of Smart Technology in Learning

Provide specialized training on the use of smart technology such as tablet devices, educational apps (Google Classroom, Zoom, Canva), and other interactive tools. Teachers will be taught how to use these technologies to create a more engaging and interactive learning environment for students. The goal is for teachers to be able to integrate smart technology in daily learning so that the teaching and learning process is more relevant to the development of modern technology and able to attract students' interest.

Technology-based Interactive Learning Module Development

Assist teachers in creating interactive learning modules using technology such as educational videos, digital presentations, and technology-based learning simulations. In addition, the program will also teach teachers how to utilize social media and other digital platforms to communicate with parents and share their children's learning progress. The goal is to create a variety of teaching methods that are more creative and innovative so that learning is more interesting for students and in accordance with the digital learning styles of today's students.

Provision of Supporting Facilities and Infrastructure

Working with schools and sponsors to provide technology devices such as computers, projectors, or mobile devices that can support technology-based learning in schools. In addition, improving internet network infrastructure to make it more stable so that online learning or the use of technology in the classroom runs smoothly. It is hoped that Wahda Aisyah Kindergarten will have adequate technology infrastructure to support the application of smart technology in daily teaching and learning activities.

Implementation Assistance and Monitoring

Assist teachers during the technology implementation period in the classroom. The training team will monitor teachers' progress and provide solutions if there are obstacles to using technology in the field. In addition, periodic evaluations are conducted to assess the effectiveness of technology use in learning. The goal is that teachers can apply the skills they learned in the training effectively in the classroom so that technology and digital literacy become an integral part of teaching methods in schools.

CONCLUSIONS

At the end of our explanation and being a solution is an obstacle when going down to the field including the busyness of coastal residents so that the maximum number of people participating in mentoring activities for the local community, we hope that the knowledge of technology is still very basic so that it requires a long duration of time in the training process for the local community. We are sure that the introduction of technology-based tourism programs can increase community income so that the traditional processing system that is still the main habit can change towards modern processing.

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