

Virtual Gallery Implementation in the Learning Process at Jigs Natural School

Ibnu Hajar¹, Sri Minda Murni², Ulfa Annida Damanik³, Nanda Ayu Setiawati⁴

ibnuhajardamanik@gmail.com¹, srimindadunia@unimed.ac.id², ulfa.damanik02@gmail.com³, nandaayusetiawati4@gmail.com⁴

Community Education Study Program, Universitas Negeri Medan, Indonesia, 20221¹, English Education Program, Universitas Negeri Medan, Indonesia, 20221², PKK Program, Universitas Negeri Medan, Indonesia, 20221³, Basic Education Program, Universitas Negeri Medan, Indonesia, 20221⁴

Abstract. This research focuses on the application of virtual galleries in the learning process which aims to improve creative thinking skills at the Alam School. The use of technology in educational settings is becoming increasingly important in driving innovative and engaging learning experiences. By implementing virtual galleries in learning, it can raise the enthusiasm and motivation of students at Alam schools. This research uses qualitative data collection methods. The research results show that the application of the virtual gallery has a positive influence on students in the learning process at the Alam School as evidenced by increased problem-solving abilities, originality of ideas, and flexibility of thinking. Findings suggest that virtual galleries offer a promising avenue for promoting creative thinking in educational settings, particularly in the context of Natural Schools. Further research could explore the long-term impact of this approach and investigate other potential benefits that may arise from incorporating indigenous knowledge into technology-enhanced learning platforms.

Keywords: Virtual Gallery, Learning, Nature School.

1 Introduction

The word "gallery" according to the KBBI is "a room or building where objects or works of art and so on are displayed" (Eva and Jassica 2022). Meanwhile, augmented reality (AR) or virtual reality is a technology that allows users to interact with environments simulated by computers (Bahar, 2014). In AR devices, computers can simulate an environment that exists in the real world into a virtual world or even an environment that never existed in the virtual world or even an environment that never existed in the real world. According to Alqahtani (2017) that "AR is a technology that allows us to create an environment where we can interact with any object in real time, and it has been widely used for training and learning purposes". AR technology allows us to create environments that can interact in real time with users. In AR technology, objects in a virtual environment are created in 3D.

Virtual Reality or what is usually called VR has basically been around since the 1970s. VR according to Sheridan in Erisa Adyati Rahmasari and Toto Haryadi (2021:274) is defined as a simulation produced as a representation of nature in the form of technological simulation and computer-mediated communication technology (digital domain layout) which is built by three main keys in the form of: sensory information (can captured by the senses), controlling the relationship between sensors and the environment (controller), as well as the ability to modify the environment created by the computer. The invention of VR has changed humanity interaction with other humans, objects, and the environment built in the digital virtual world. Until now, the use of VR has experienced very extensive development, not only as a training simulation as its initial function, but has also spread to the world of gaming, advertising, communication, and even art exhibitions. The adaptation of VR in various fields cannot be separated from the aspects that build it, namely: virtual environments (interactive and non-interactive) and virtual technology (computer-based simulation and communication).

Nature School

One form of alternative education system currently developing in Indonesia is natural school education. According to Mogensen and Mayer in Silvia Tabah Hati (2017:7) in natural school's students are given the opportunity to collaborate and discuss with teachers in planning teaching and learning activities. There is balanced participation between students, teachers and other members of the school community. The current paradigm is that quality schools are always expensive. This paradigm must be changed by starting from minimizing the costs of physical construction of schools as places for school activities, such as: classrooms, offices, laboratories, sports fields. All of that must be changed with a place of learning that makes a maximum contribution by replacing it with the universe as the best laboratory on earth. So that all education costs can be more efficient. This is what natural schools apply in designing the school's physical environment.

According to Ward Silvia Tabah Hati (2017:8) in defining a natural school, it is a school that has an active commitment to developing learning plans that focus on the environment. Natural schools are alternative schools. In simple terms, the definition of an alternative school is a school whose form and learning methods are different from the formal schools that we know so far. Various groups argue that alternative schools are a form of dissatisfaction with the system implemented by the government through formal schools. Formal schools are considered too restrictive of children's freedom and do not prioritize children's interests. In his view, parents are flocking to send their children to their favorite schools for the sake of their children's future. Future glory according to such a view is measured by the level of education.

This means that the higher the school level, the greater the influence on increasing income. Children compete to compete, but unfortunately they only display brain achievements, not character. So many deviations occur after school is finished. Roem believes that schools are unable to answer various kinds of national problems because the enthusiasm for learning in the form of schooling is like a commodity that is strengthened by materialism. The problem is that school has become a stereotype, not a strong stigma in the minds of the public. In alternative education there is a lot of added value provided. Examples include special skills, learning atmosphere, better child personality, and leadership. An example of an alternative school that is currently developing is the Bogor Nature School which uses nature as a place of learning. This school tries to present a rural atmosphere in its students' learning environment.

According to Musmuliadi Tsani, et al (2022:16) Natural schools are schools that utilize the environment outside the school as an arena for learning and interacting with the community. Natural schools are an alternative environment-based education that is currently developing in Indonesia. This helps students grow into people with character. Humans are not only able to utilize nature, but are also able to love and care for nature. Natural schools are implemented by learning in nature, so that students can more easily understand the learning material presented. The learning process takes place naturally in shaping students' work activities and experiences, not just the transfer of knowledge from teacher to student.

The presence of natural schools in disadvantaged areas as an alternative to formal schools generally allows children in these areas to get a good education. So it is hoped that inspiration from the presence of natural schools can be an alternative in creating a pleasant learning atmosphere and make children happy and feel that learning is a necessity and fun, not something that is boring and has to be forced. With a learning concept that is fun and not boring, it is proven that children will enjoy going to school all day long. So that later the school will be able to increase the potential of each child in various ways.

Students are one of the most important components in a school. Based on Law Number 2 of 1989, students or pupils are members of society who are trying to develop themselves in a certain path, type or level of education. These various forms of development can also shape different student characters. One of them is of the school type. Here the author takes two types of schools, namely natural schools and formal schools or what are usually called conventional schools. Entering a natural school, research conducted by Fauzan & Millah (2018) found that the outbound training method had a significant relationship with students' leadership characteristics. Another factor that can shape student character is research conducted by Rahmi & Salim (2017), the results of which show that classroom climate is significantly related to creative attitudes. Switching from natural schools to formal schools, research conducted by Jampel (2016) found that the dominant learning style of students uses a visual learning style. Factors that influence students' learning style tendencies are internal and external factors, and factors that influence learning motivation are internal factors in the form of physical and psychological factors. Meanwhile, external factors are non-social and social.

2 Method

According to Sugiyono (2013:1), qualitative research methods are research used to examine natural objects where the researcher is the key instrument, data collection techniques are carried out in combination, data analysis is inductive, and the results of qualitative research emphasize meaning, rather than generalizations. Qualitative research aims to maintain the form and content of human behavior and analyze its qualities, not making it a quantitative entity (Mulyana, 2008: 150). The aim of this descriptive research is to create a systematic, factual and accurate description, description or description of the facts, characteristics and relationships between the phenomena being investigated.

Data Collection Techniques Data collection techniques in qualitative research are observation, interviews and documentation studies. 1) The observations made in this research are observations. Observations were carried out by means of participatory observation of the learning process at the Medan Alam School. 2) Interviews were conducted to determine the

completeness of the data and efforts to obtain accurate data and appropriate data sources. 3) Documentation studies in this research are needed to sharpen research analysis related to the use of virtual gallery media in learning at the Medan Alam School.

3 Results and Discussion

Use of virtual galleries via Augmented Reality. AR is a technology that achieves real-time integration of computer-generated digital content with the real world. Augmented Reality allows users to view 2D or 3D virtual objects projected onto the real world. AR is very useful for interactive, real and direct learning media by students. Apart from that, learning media using Augmented Reality can increase students' interest in learning because of the nature of Augmented Reality which combines the virtual world which can increase students' imagination with the real world directly. Augmented Reality is interactive in nature which allows students to see real and direct situations and be able to imagine the results of the learning process provided by educators to students. The use of educational media using Augmented Reality can stimulate students' mindsets in thinking critically about problems and events that exist in everyday life, because the essence of educational media is to help students in the learning process with or without educators in the educational process, so that the use of educational media with augmented reality, you can directly provide learning wherever and whenever students want to carry out the learning process. AR Learning Media can visualize abstract concepts for understanding and structure of an object model, thus enabling AR as an interactive media in accordance with the objectives of learning media.

Furthermore, because interactive learning means the audience can participate in the process by accessing the required model on their own gadget via the AR application. Therefore, children and students will catch up on what they learn more quickly and easily. In addition, they will be more involved and enjoy learning in class. AR technology allows playing around with the material, playing with it, instantly reading useful facts and important tips. So basically the function of AR applications is to stimulate active exploration of the subject being studied.

Additionally, Augmented reality in the educational process allows students to access 3D models of various fields with just a simple camera scan, and browse websites directly from the application. For example, after scanning several photos related to an AR model of what is depicted there, students can instantly obtain detailed information about the subject. Image – Model – Info – Memory. Perfect and easy learning cycle.

One of the media that can be used in an interesting learning process and is believed to be able to increase students' motivation and enthusiasm for learning is Augmented Reality (AR) media. According to Azuma (1997), Augmented Reality (AR) is defined as a technology that combines the real world with the virtual world, is interactive in accordance with the real world and takes the form of three-dimensional animation. The same thing was also expressed by James R. Valino (1998), Augmented Reality (AR) can be interpreted as a technology that is able to combine two-dimensional or three-dimensional virtual objects into a real environment which is then displayed or projected. in real time. With the advancement of time and the development of today's gadgets, this is easy to do.

Through Vihi research results (2020) application of appropriate technology for digital learning media in the form of AR applications as digital learning media, increasing the competency of teachers at Kemala Bhayangkari Kindergarten No. 72 Wonogiri in the use of digital media in learning and providing learning infrastructure at Kemala Bhayangkari Kindergarten No. 72 Wonogiri in the form of teaching aids and digital sign recognition applications traffic and APILL. This digital application can be run via each teacher's smartphone during the process of carrying out learning in class. Apart from that, Nabila's (2021) research on the use of Augmented Reality (AR) media in learning to recognize the shape of the earth, it can be concluded that the use or application of Augmented Reality (AR) media in this learning attracts students' attention and learning motivation, and is necessary, especially in learning to recognize the Shape of the Earth, because it can realize the texture, structure and shape of objects from the virtual or virtual world to the real world. In this way, learning to recognize the shape of the earth using Augmented Reality (AR) media will be more easily accessed by students and educators, and will be easier for students to understand, besides that it can also increase the variety of effective learning media that can be used for education.

4 Conclusion

Based on the research results, it can be concluded that in the learning process at the Natural School, many people still use the lecture method, which makes students less enthusiastic about learning. By implementing virtual gallery media, it can increase students' enthusiasm for studying at Medan Alam School.

The application of this learning media can be well received by students and is suitable for use as learning media to support the learning process, both in class and independent learning. Apart from being an application, the product being developed also includes a guidebook for using the application and a bookmark card. The application is easy to install on smartphones and easy for teachers and students to use because it is accompanied by a practical guidebook.

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