

Received: 22 March 2023

Revised: 13 June 2023

Accepted: 21 June 2023

Published: 23 June 2023

Folklore-Based Virtual Reality as a Teaching Media in the Secondary School Viewed From its Implication and Multimodal Aspects

Rama Dwika Herdiawan

(Corresponding Author)

English Language Education Department, Faculty of Teacher Training and Education,
Universitas Majalengka

Email: ramadwika@unma.ac.id

Afrianto

English Language Education Department, Faculty of Literature and Education,
Universitas Teknokrat Indonesia

Email: afrianto@teknokrat.ac.id

Eka Nurhidayat

English Language Education Department, Faculty of Teacher Training and Education,
Universitas Majalengka

Email: ekanurhidayat@unma.ac.id

Yayah Nurhidayah

English Language Education Department, Faculty of Teacher Training and Education,
Universitas Majalengka

Email: hidayahnur@unma.ac.id

Agus Rofi'i

English Language Education Department, Faculty of Teacher Training and Education,
Universitas Majalengka

Email: agusrafii@unma.ac.id

ABSTRACT

This research article explores folklore-based virtual reality (VR) as a teaching medium in secondary schools, examining its effectiveness and impact on students' learning experiences. Taking advantage of virtual reality (VR) in education has several benefits, including enhancing students' learning experiences, facilitating more effective comprehension of concepts, and preparing students for the demands of an ever-evolving digital society. Drawing upon the multimodal discourse analysis framework, the study investigates how combining virtual reality technology and folklore narratives can enhance students' engagement, understanding, and retention of educational content. The findings highlight the potential of folklore-based VR as a powerful tool for immersive and interactive learning while shedding light on the multimodal aspects of the discourse generated through this medium. Educators can enhance the learning experience and foster a deeper understanding of cultural heritage and identity by integrating folklore-based virtual reality as a teaching medium. Moreover, Folklore-based virtual reality can encourage critical thinking skills as students navigate through complex narratives, make decisions, and solve problems within the virtual environment. Furthermore, exposure to diverse folklore stories and characters can promote empathy and understanding of different cultures, fostering a more inclusive and tolerant

society. Integrating virtual reality (VR) technology into English education and literary resources presents promising prospects for students to actively interact with books through novel approaches, augmenting their understanding, language proficiency, and general admiration for literature. The research contributes to the growing field of educational technology by demonstrating the benefits of folklore-based VR as a pedagogical approach in secondary education.

Keywords: *Folklore, Virtual Reality, Teaching Media, Secondary Schools, Multimodal Discourse Analysis*

INTRODUCTION

Integrating virtual reality (VR) into educational practices has attracted significant attention recently. This article focuses on the specific application of folklore-based VR as a teaching medium in secondary schools. The virtual learning environment aims to boost students' learning experiences (Weller, 2007). Educators can provide students an immersive and interactive learning experience by incorporating folklore narratives into virtual reality environments. One of the essential features of VR is immersion, which enhances the situated knowledge of users (Lan, Y. J., 2020). The study aims to explore the effectiveness of this pedagogical approach using multimodal discourse analysis as a framework. It has transformed traditional teaching methods and opened new possibilities for immersive and engaging learning experiences. One such technology that has gained significant attention is virtual reality (VR). Virtual reality provides a simulated environment that allows users to interact with digital content and experiences in a highly immersive and realistic manner. In recent years, there has been a growing interest in exploring the potential of virtual reality as a teaching medium in various educational contexts. It is not only attracting the attention of the information and computer technology (ICT) industry (Shirer & Torchia, 2017). Most papers written about VR are related to the area of education that elaborate on specific applications implemented with a clear educational or training objective, and they are categorized into two main groups: the ones that focus on adult training and the ones that are executed at high school and university education. There are researches stating that the use of virtual reality contributes to positive learning outcomes and an increased interest in the topic (Markowitz et al., 2018; van Ginkel et al., 2019; Yeh et al., 2020).

Folklore, as a rich repository of cultural heritage and traditional narratives, offers a unique opportunity for integrating virtual reality into secondary school education. Folklore focuses on existing phenomena and objects by elaborating on aspects of composition and structure, or parts of processes and changes so that they are related to national characteristics of a diverse culture that covers cultural and historical riches (Bunga et al., 2020; Maulana 2014). Folklore narratives encompass many stories, legends, myths, and traditions passed down through generations, carrying historical, social, and cultural significance. Folklore provides information about the local wisdom of an area and quickly affects the reader. This information is concerned with a mandate so that one behaves correctly. In some stories, it indicates the richness of the forest ecosystem so that it can be employed to gain ownership or attitude towards the natural environment. Therefore, folklore is a valuable element for education (Banda & Morgan, 2013; Rahman & Purwanto, 2021). By combining virtual reality's immersive nature with folklore's power, educators can create transformative learning experiences that foster cultural appreciation, critical thinking, and empathy towards diverse cultures. Folklore is oral literature conveyed by a person or group of people in a society. In

essence, folklore (folklore) is a local identity contained in traditional communities' lives (2009).

Multimodal discourse analysis provides a comprehensive framework for studying complex interactions and communication within virtual environments. Teaching English as a foreign language (EFL) in Chinese universities represents a multimodal experience that occurs through the management of spoken language and a typical creation of other communicative modes, such as gesture, gaze, and facial expression (Peng, 2019). It allows researchers to analyze the various methods of communication, such as methodical, auditory, and haptic elements, and how they contribute to meaning-making and learning experiences. By applying multimodal discourse analysis, researchers can gain a deeper understanding of the educational potential of folklore-based virtual reality in secondary schools. EFL teachers have different characteristics in a class, and students study and employ English in class. Therefore, to conduct an effect, often implement great efforts to motivate students to participate in class interaction (Peng et al., 2017; Peng, 2019).

This section provides an overview of the existing literature on virtual reality in education and the incorporation of folklore narratives in teaching. In addition, students are actively engaged in the learning process; the material is created more visually and understandable with the approach (WickevisuallyD, 1992). It highlights the potential benefits of virtual reality as an educational tool and the significance of folklore in cultural preservation and identity formation. Formulating virtual reality is a crucial aspect of developing information technology. In addition, many people agree that the IT world always somehow influences new paradigms of human activity (Helsel S, 1992). VR-basparadigmsing media improves students' ethical decision-making in business ethics. Business schools need help to internalize ethics. Virtual technologies help pupils comprehend business ethics abstracts, virtual reality-based learning boosts self-efficacy, and self-efficacy increases ethical efficiency (Sholihin et al., 2020). Virtual Reality, also known as VR, is a technological innovation that facilitates the representation of the physical world into a simulated environment through specialized electronics. Utilizing experience is achieved by presenting three-dimensional (3D) worlds to the user. To enhance literacy within the domain of astronomy, implementing technological tools is essential. These tools should facilitate critical knowledge about the solar system, employing various abilities, such as visual, aural, and kinesthetic approaches (Borman et al., 2018). The outcomes of the contrast experiment indicate that using virtual reality-based multiple teaching systems is using students to enhance their theoretical knowledge acquisition, promote self-regulated learning, stimulate their interest in education, and improve the overall classroom environment (Li, 2017). The review addresses the concept of multimodality in discourse analysis, emphasizing its relevance to analyzing the various modes of communication within folklore-based virtual reality environments. The theoretical framework of this research article is grounded in several key concepts and theories that provide a foundation for understanding the integration of folklore-based virtual reality (VR) as a teaching media in secondary schools, viewed through the lens of multimodal discourse analysis.

Folklore and Cultural Heritage

Folklore encompasses the traditional narratives, beliefs, customs, and practices passed down through generations within a particular culture. It is the prefectural heritage of a

community or society and plays a crucial role in shaping identity, values, and understanding of the world. Folklore contains traditional beliefs, customs, and stories from a community that is transferred from generation to generation by word of mouth, so they are also regarded as a means of communication between ages and a place of experience from the old to the new (Altwaiji, 2017; Michalopoulos, 2021). The study draws upon the theoretical framework of folklore and cultural heritage to explore how virtual reality can preserve, promote, and engage students with diverse folklore narratives in an educational setting.

Virtual Reality and Immersive Learning

Virtual reality is an immersive technology that creates a computer-generated environment, enabling users to interact with and experience digital content in a highly immersive and realistic manner. Loomis, J, Blascovich, J and Beall, A (1999) state that an immersive virtual environment (IVE) is designed as a platform where the user is inside and can enrich the sense of presence being within it, and that contains synthetic sensory information that ves a surrounding and continuous stream of stimuli, constructing the illusory perception of being enclosed within and interacting with a natural environment. The theoretical framework of virtual reality and immersive learning provides naturalists with the affordances of virtual reality in engaging learners and enhancing their learning experiences. It emphasizes the role of sensory engagement, presence, and embodiment in creating impactful and memorable learning experiences.

Multimodal Discourse Analysis

Multimodal discourse analysis examines the various modes of communication, such as visual, auditory, and haptic elements, and how they contribute to meaning-making and interaction within a specific context. Qualitative analysis of multimodal data, which covers videos, pictures, or voice recordings, is conducted (Chan, 2014). The multimodal discourse analysis theoretical framework is applied to analyze virtual reality's complex interactions and communication. It helps uncover how different modes of communication, such as visual representations, auditory cues, and interactive features, contribute to students' engagement, understanding, and interpretation of folklore-based VR experiences.

Constructivism and Sociocultural Theory

Constructivism and sociocultural theory provide a theoretical lens for understanding learning as a social and active process. Draper (2002) argues that constructivism "is the philosophy, or belief, that learners create their knowledge based on interactions with their environment and others." These theories emphasize the importance of learners' active engagement, collaboration, and meaning-making in constructing knowledge. The theoretical framework of constructivism and sociocultural theory inform the exploration of how folklore-based virtual reality experiences can foster student engagement, critical thinking skills, cultural appreciation, and empathy towards diverse cultures.

Utilizing folklore-inspired virtual reality (VR) as an instructional tool in secondary educational institutions offers a potentially fruitful path for augmenting the learning experience. Nevertheless, more extensive research must be conducted on the consequences and significance of multimodal elements within this particular environment. Hence, the primary objective of this study is to examine the efficacy and obstacles associated with utilizing virtual reality (VR) based on folklore as an instructional instrument in secondary educational institutions. The investigation will specifically concentrate on the pedagogical

consequences of this approach and the interaction between various modes of communication within the virtual learning setting. This research explores the integration of folklore-based virtual reality as a teaching medium in secondary schools, viewed from the perspective of multimodal discourse analysis and its implications. The study investigates the benefits and challenges of using folklore narratives within virtual reality environments. It examines their impact on students' engagement, learning experiences, cultural appreciation, critical thinking skills, and empathy towards diverse cultures. By analyzing the multimodal discourse within the virtual reality environment, this research article sheds light on the potential of folklore-based virtual reality in enhancing secondary school education. The findings of this research article will contribute to the existing body of knowledge on virtual reality in education, particularly in the context of folklore integration. Educators and researchers can gain insights into practical instructional approaches and design principles for integrating this technology into secondary school curricula by identifying the benefits, challenges, and pedagogical strategies associated with folklore-based virtual reality. Furthermore, the research will provide valuable recommendations for future research directions and highlight areas where further investigation is warranted.

METHOD

The research employs a descriptive case study considering its implications and multimodal aspects to examine the discourse generated within folklore-based virtual reality environments. The methodology encompasses data collection through observation, interviews, and artifacts analysis. The analysis focuses on multimodal aspects, such as verbal language, visual representations, gestures, and interactions within the virtual environment. The study involves secondary school students and teachers as participants. A purposive sampling technique is employed to select participants with virtual reality experience and an interest in folklore. The sample size will be determined based on the principle of data saturation, where new information and insights cease to emerge from the data.

Regarding data collection technique, the study focuses on VR Experience Creation: Folklore narratives are selected from diverse cultural traditions, representing a range of stories, legends, or myths. These narratives are adapted and transformed into virtual reality experiences using VR development tools and software. The VR experiences incorporate multimodal elements, including visual representations, audio effects, and interactive features to enhance engagement and immersion; Observation: Participants engage with the folklore-based VR experiences individually or in small groups within the school setting. The researchers observe the participants' interactions, behaviors, and engagement during VR experiences.

The objective of this study is to examine the level of student engagement when interacting with virtual reality (VR) content based on folklore narratives inside educational lessons. Observing and evaluating the level of interest, interaction, and participation displayed by individuals is essential for assessing students' comprehension, emotional response, interview, educational perspective, feedback gathering, and pedagogical significance. This study critically evaluates the quality and authenticity of folklore narratives portrayed in virtual reality (VR) adaptations. By conducting a thorough analysis, this research seeks to assess how these VR adaptations effectively capture the essence and fidelity of traditional folklore

storytelling. This analysis will compare contemporary and traditional resources, specifically evaluating their efficacy in preserving cultural authenticity.

This analysis aims to investigate the diverse multimodal features included in virtual reality (VR) material, encompassing visual elements, audio effects, and interactive components. Evaluate the extent to which these factors contribute to the holistic learning experience. Analysis of Assignments, Projects, and Assessments Derived from Virtual Reality-Based Lessons Assess the extent to which students' outputs exhibit a heightened comprehension of the folklore and its cultural milieu. Through observational techniques, interviews, and artifact analysis about folklore-based Virtual Reality as a Teaching Media, valuable insights can be obtained regarding its efficacy, influence on student learning, and potential to enhance the pedagogy around folklore narratives inside secondary educational institutions.

Field notes are taken to capture essential observations and insights; Interviews: Semi-structured interviews are conducted with the participants to gather their perspectives, experiences, and perceptions regarding the folklore-based VR experiences. The interviews allow participants to reflect on their engagement, learning experiences, cultural appreciation, critical thinking skills, and empathy toward diverse cultures.

In case of the data analysis process involves multimodal discourse analysis, which examines the various modes of communication within the virtual reality environment. The research examines visual, auditory, and haptic elements and the participants' interactions and discourse during VR experiences. The data analysis process follows an iterative and inductive approach, allowing for the identification of themes, patterns, and meaningful connections.

RESULTS AND DISCUSSION

Results

This section presents the findings derived from the multimodal discourse analysis of folklore-based virtual reality experiences in secondary school settings. The results highlight the impact of this teaching medium on student engagement, understanding of educational content, and emotional connection to folklore narratives. The findings also elucidate the multimodal dimensions of the discourse, emphasizing the role of visual, auditory, and haptic elements in shaping the learning experience.

The findings of this research article shed light on the integration of folklore-based virtual reality (VR) as a teaching medium in secondary schools, viewed from the perspective of multimodal discourse analysis. The study explored the benefits and challenges of using folklore narratives in virtual reality. It examined their impact on students' engagement, learning experiences, cultural appreciation, critical thinking skills, and empathy towards diverse cultures. The analysis of multimodal discourse within the VR environment provided valuable insights into the educational potential of folklore-based virtual reality in secondary school settings. Example Figure 1.



Figure 1. Findings from Observation

From observation, it is indicated that folklore-based VR experiences significantly enhanced students' engagement and immersion in the learning process. Incorporating visual representations, auditory cues, and interactive features within the VR environment captivated students' attention and created a sense of presence and embodiment. The immersive nature of the VR experiences stimulated students' curiosity and fostered a deeper connection with the folklore narratives, resulting in increased motivation and enthusiasm for learning. The interviews and observations indicated that students exhibited a high level of engagement and immersion during their interactions with folklore-based VR experiences. They expressed enthusiasm and excitement as they explored the virtual reality environments and engaged with the folklore narratives. The immersive nature of the VR experiences captured their attention and created a sense of presence, making the learning process more memorable and impactful.

Integrating diverse folklore narratives within the virtual reality environment promoted cultural appreciation and understanding among students. The findings indicated that students developed a heightened awareness of different cultural traditions, values, and beliefs through their interactions with the folklore-based VR experiences. They gained insights into folklore narratives' historical and social contexts and developed a more nuanced understanding of cultural diversity. This fostered cultural empathy, respect, and a broader worldview among the students. It portrays the positive impact of folklore-based VR on cultural appreciation and understanding. Students expressed a heightened awareness of different cultural traditions, values, and beliefs through their interactions with the folklore narratives in the virtual reality environment. They gained insights into the historical and social contexts of the folklore stories, deepening their understanding of diverse cultures and fostering a sense of cultural appreciation and respect.

Then, based on the teacher's interview, folklore-based VR experiences facilitated the development of critical thinking skills among students. Engaging with folklore narratives in a virtual reality setting encouraged students to analyze and interpret the stories critically, challenging stereotypes and preconceived notions. They engaged in active sense-making, examining multiple perspectives and questioning the underlying messages and themes embedded within the folklore narratives. The virtual reality environment provided a safe

space for students to explore and express their interpretations, fostering intellectual curiosity and analytical thinking—several pedagogical considerations and challenges are associated with integrating folklore-based VR in secondary school education. Teachers were crucial in facilitating the VR experiences, providing guidance, and scaffolding students' learning. However, the study identified the need for professional development and training for teachers to effectively utilize virtual reality as a teaching medium. Technical limitations, such as access to VR equipment and software, also posed challenges for widespread implementation. Moreover, considerations of cultural sensitivity, accuracy in representing folklore narratives, and ethical implications emerged as important factors to address during the design and implementation of folklore-based VR experiences.

In addition, the transformative potential of folklore-based virtual reality is regarded as a teaching medium in secondary schools. Integrating folklore narratives within the virtual reality environment provides a unique opportunity to engage students, foster cultural appreciation, develop critical thinking skills, and promote empathy towards diverse cultures. The multimodal discourse analysis approach allowed for a comprehensive understanding of the various modes of communication and their contributions to the learning experiences within the VR environment. The findings highlight the significance of pedagogical support, technological infrastructure, and cultural considerations in harnessing the educational benefits of folklore-based VR. This study contributes to the existing knowledge of virtual reality in education, providing insights into the potential of folklore-based virtual reality as a transformative teaching medium. The discussion prompts further research and exploration into VR integration, pedagogical strategies, and cultural considerations in educational contexts. It offers practical recommendations for educators, policymakers, and researchers to effectively utilize virtual reality and foster cultural appreciation and critical thinking skills in secondary school education.

Discussion

It explores the implications of folklore-based VR as a teaching medium and its potential for promoting active learning, cultural awareness, and critical thinking skills. The section also addresses the limitations and challenges of implementing this technology in secondary school classrooms.

The findings of this research have significant implications for educational practice, specifically in the context of secondary schools. Educators can enhance the learning experience and foster a deeper understanding of cultural heritage and identity by integrating folklore-based virtual reality as a teaching medium. Folklore-based virtual reality offers an immersive and interactive learning environment that captures students' attention and promotes active participation. In particular, it has a significant impact on education, which is not surprising: it is impossible to prepare a person for life in a rapidly developing world if he has never encountered modern technologies during his entire time at school and higher education (Tilovberdiyevich, 2023). Incorporating folklore narratives, which often contain elements of fantasy, adventure, and cultural significance, can effectively engage students and increase their motivation to learn. The multimodal nature of virtual reality allows students to engage with content through multiple sensory channels, including visual, auditory, and haptic modalities. This rich multimodal experience enhances the comprehension and retention of

information, as students can perceive and interact with educational content more holistically. Folklore narratives serve as repositories of cultural knowledge and traditions. Integrating folklore-based VR into the curriculum allows students to explore and appreciate their cultural heritage engagingly and interactively. This promotes cultural preservation and identity formation and fosters a sense of pride in one's cultural background. To sum up, Folklore contains traditional beliefs, customs, and stories from a community that is transferred from generation to generation by word of mouth, so they are also regarded as a means of communication between ages and a place of experience from the old to the new (Altwaiji, 2017; Michalopoulos & Xue, 2021).

Regarding Critical Thinking and Empathy, Folklore-based virtual reality can encourage critical thinking skills as students navigate through complex narratives, make decisions, and solve problems within the virtual environment. Furthermore, exposure to diverse folklore stories and characters can promote empathy and understanding of different cultures, fostering a more inclusive and tolerant society. Folklore contains educational values that can be applied in everyday life. Value is something essential and valuable for humanity. Values can be a person's concepts, principles, ways of thinking, behavior, and attitudes (Nopasari et al., 2023). However, integrating folklore-based virtual reality as a teaching medium requires adequate teacher training and support. Educators should be provided with the necessary skills to effectively design, implement, and facilitate virtual reality experiences in the classroom. Professional development programs and resources should be made available to assist teachers in harnessing the full potential of this technology. Folklore-based virtual reality has the potential to revolutionize secondary school education by providing immersive, interactive, and culturally enriching learning experiences. A multimodal experience occurs through the management of spoken language and a typical creation of other communicative modes, such as gesture, gaze, and facial expression (Peng, 2019). This research article has explored the application of multimodal discourse analysis to examine the discourse generated within folklore-based virtual reality environments. The findings highlight the benefits of this pedagogical approach, including enhanced engagement, multimodal learning experiences, cultural preservation, critical thinking, and empathy development. This study contributes to the growing knowledge of integrating virtual reality in education by considering the implications for educational practice and suggesting future research directions. As educators continue to seek innovative ways to engage students and promote meaningful learning experiences, folklore-based virtual reality emerges as a promising tool.

CONCLUSION

The conclusion summarizes the research findings and their significance in educational technology. It emphasizes the potential of folklore-based virtual reality as a powerful and engaging teaching medium in secondary schools. The article concludes by discussing the implications for future research and the importance of continued exploration and integration of virtual reality technologies in educational settings. This technology can bridge the gap between traditional teaching methods and the digital age by leveraging the power of immersive storytelling and multimodal discourse. However, further research and exploration are necessary to understand its potential and address the associated challenges fully. To maximize the benefits of folklore-based virtual reality in secondary schools, it is essential to

provide educators with adequate training and support. Professional development programs should focus on building technological competence, content creation skills, and pedagogical strategies for integrating virtual reality into the curriculum. Collaboration between educators, instructional designers, and technology experts can facilitate the development of high-quality, culturally relevant virtual reality experiences that align with educational objectives. Additionally, ongoing research is needed to investigate the long-term impact of folklore-based virtual reality on students' learning outcomes and overall academic and personal development.

Longitudinal studies can help assess the effectiveness of this technology in enhancing knowledge retention, critical thinking abilities, and empathy toward diverse cultures. Such research can provide valuable insights for refining instructional approaches and optimizing the design of virtual reality environments. Furthermore, ethical considerations must be at the forefront of integrating virtual reality into education. Responsible content creation, student safety, privacy protection, and equitable access to technology should be prioritized. Guidelines and frameworks should be developed to ensure the ethical implementation and usage of folklore-based virtual reality in secondary schools. In conclusion, this research article has explored the potential of folklore-based virtual reality as a teaching medium in secondary schools, viewed through multimodal discourse analysis. The findings underscore the benefits of this pedagogical approach, including enhanced engagement, multimodal learning experiences, cultural preservation, and the development of critical thinking and empathy. This study contributes to the ongoing discourse on integrating virtual reality in education by considering the implications for practice and suggesting future research directions. As technology continues to evolve, it is crucial to harness its potential to create immersive and transformative learning experiences for students in the 21st century.

REFERENCES

- Altwaiji, M. (2017). History of Saudi folklore and factors that shaped it. *Trames: Journal of the Humanities and Social Sciences*, 21(2), 161–171. <https://doi.org/10.3176/tr.2017.2.05>
- Banda, D., & Morgan, W. J. (2013). Folklore is an instrument of education among the Chewa people of Zambia. *International Review of Education*, 59(2), 197–216. <https://doi.org/10.1007/s11159-013-9353-5>
- Borman, R. I., Putra, Y. P., Fernando, Y., Kurniawan, D. E., Prasetyawan, P., & Ahmad, I. (2018). I am designing an Android-based Space Travel Application Trough Virtual Reality for Teaching Media. 2018 International Conference on Applied Engineering (ICAE), 1–5. <https://doi.org/10.1109/INCAE.2018.8579394>
- Bunga, R. D., Rini, M. M., & Serlin, M. F. (2020). Peran cerita rakyat sebagai media pembelajaran bahasa Indonesia di kabupaten Ende. *Retorika*, 1(1), 65–77. <http://e-journal.uniform.ac.id/index.php/RJPBSI/article/view/515>

- Draper, R. J. (2002). School mathematics reform, constructivism, and literacy: A case for literacy instruction in the reform-oriented math classroom. *Journal of Adolescent & Adult Literacy*, 45(6), 520-529.
- Helsel S .(1992). Virtual reality and education. *Educational Technology*, 32(5), 38-42. <https://www.jstor.org/stable/44425644>
- Lan, Y. J. (2020). Immersion, interaction and experience-oriented learning: Bringing virtual reality into FL learning. *Language Learning & Technology*, 24(1), 1–15. <http://hdl.handle.net/10125/44704>
- Li, H. (2017). Design of multimedia teaching platform for Chinese folk art performance based on virtual reality technology. *International Journal of Emerging Technologies in Learning*, 12(9), 28. <https://doi.org/10.3991/ijet.v12i09.7487>
- Loomis, J, Blascovich, J and Beall. A. (1999). Immersive virtual environment technology as a basic research tool in psychology. *NCBI*, 31, (4), 557-564. <https://doi.org/10.3758/bf0320073>
- Markowitz, D. M., Laha, R., Perone, B. P., Pea, R. D., & Bailenson, J. N. (2018). Immersive virtual reality field trips facilitate learning about climate change—frontiers in *Psychology*, 9. Advanced online publication. <https://doi.org/10.3389/fpsyg.2018.02364>
- Maulana, Y. (2014). Cerita rakyat “Asal-Usul Pulau Halang”: Analisis fungsi Vladimir Propp. *Madah*, 5(1), 105–114. <https://doi.org/10.26499/madah.v5i1.528>
- Michalopoulos, S., & Xue, M. M. (2021). Folklore. *The Quarterly Journal of Economics*, 136(4), 1993–2046. <https://doi.org/10.1093/qje/qjab003>
- Nopasari, D., Rozak, A., & Wiradinata, R. (2023). Digital Folklore Text Teaching Materials Loaded with Educative Values for SMP/MTs Students. *International Journal of Secondary Education*, 11(1), 11-17. doi: 10.11648/j.ijsedu.20231101.13
- Peng, J. (2019). The roles of multimodal pedagogic effects and classroom environment in willingness to communicate in English. *System* 82, 161–173. doi 10.1016/j.system.2019.04.006
- Peng, J., Zhang, L., and Chen, Y. (2017). The mediation of multimodal affordances on willingness to communicate in the English as a foreign language classroom. *TESOL Q.* 51, 302–331. doi: 10.1002/tesq.298
- Purwadi. 2009. *Folklore Jawa*. Yogyakarta: Pura Pustaka.

- Rahman, H., & Purwanto, W. E. (2021). Bentuk kearifan ekologis Papua dalam cerita rakyat Papua. *Prosiding Seminar Bahasa dan Sastra Indonesia*, 5(1), 318–325. <https://doi.org/10.22219/.v5i1.4912>
- Selena Chan .(2013). Using videos and multimodal discourse analysis to study how students learn a trade, *International Journal of Training Research*, 11(1), 69-78, DOI: 10.5172/ijtr.2013.11.1.69
- Shirer, M., Torchia, M. (2017, February 27). Worldwide spending on augmented and virtual reality will reach \$13.9 billion in 2017. Businesswire. Retrieved from <https://www.businesswire.com/news/home/20170227005097/en/Worldwide-Spending-AugmentedVirtual-Reality-Forecast-Reach>.
- Sholihin, M., Sari, R. C., Yuniarti, N., & Ilyana, S. (2020). A new way of teaching business ethics: The evaluation of virtual reality-based learning media. *The International Journal of Management Education*, 18(3), 100428–100428. <https://doi.org/10.1016/j.ijme.2020.100428>
- Tilovberdiyevich, X., A. (2023). Virtual Reality in Education (On the Example of Applications). *Journal of Pedagogical Inventions and Practices*, 16(1), 29-31.
- van Ginkel, S., Gulikers, J., Biemans, H., Noroozi, O., Roozen, M., Bos, T., van Tilborg, R., van Halteren, M., & Mulder, M. (2019). Fostering oral presentation competence through a virtual reality-based task for delivering feedback. *Computers & Education*, 134, 78–97. <https://doi.org/10.1016/j.compedu.2019.02.006>
- Weller, M. (2007). *Virtual learning environments: Using, choosing, and developing your VLE*. London: Routledge.
- Wickens C. D. (1992). Virtual reality and education. Proceedings IEEE International Conference on Systems, Man, and Cybernetics. – IEEE, 1992. – page. 842-847.
- Yeh, H. C., Tseng, S. S., & Heng, L. (2020). Enhancing EFL students' intracultural learning through virtual reality. *Interactive Learning Environments*, 30(9), 1609-1618. <https://doi.org/10.1080/10494820.2020.1734625>