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Potential Benefits of Metaverse Concept Implementation in English for Tourism Course: A Case Study in Indonesian Higher Education Contexts

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Abstract
This study described the potential benefits of implementation of the Metaverse concept in English for Tourism course revealing views from the students' perception. This research used a qualitative descriptive case study to investigate the phenomenon of the use of metaverse at higher educational levels in the Indonesia context. During data collection, an interview was conducted to gather the student's perspective on the notion of metaverse in English for the Tourism course, and the document served as secondary data as the artifact utilized in the subject's classroom activity. Thematic analysis was used to interpret the data. Based on the findings, there are two benefits of implementing metaverse concepts in English for tourism course. The study implemented two metaverse platforms namely *spatial.io* and *readyplayerme.* The study showed that the students showed their positive perception towards the use of these platforms. Integrating a virtual environment in a metaverse concept gives prospects for immersive and interactive learning enhancing the students' learning engagement. In addition, since the students need to have the capability to use the platform, their digital literacy was also developed.

Keywords: Metaverse; English for tourism; higher education; case study

Introduction

The metaverse concept is important for English tourism lessons since it provides new opportunities to enrich students' learning experiences and interact with sites. It offers a platform for immersive travel inspiration, virtual events, and tourist support, enabling people to engage with locations more dynamically and informally. Furthermore, the metaverse can level the playing field by providing equal access to virtual experiences. This makes travel more inclusive and accessible to a greater audience. The metaverse allows for increased social connections, lifelike interactions, and more accurate representations of physical objects in the virtual world, which improves the overall travel experience. In an English tourism class context, the metaverse provides abundant opportunities for language learning. By participating in virtual tours, engaging in simulated conversations with virtual tourists or locals, and navigating virtual environments in English, learners can practice and improve their language skills in a realistic and contextually relevant manner. This immersive language learning experience enhances both fluency and proficiency in English, which are essential skills for professionals in the tourism industry. Virtual reality technology called Metaverse is expected to significantly impact how humans interact and communicate, particularly in the field of education. Understanding Metaverse, it is an immersive social network environment on a persistent multi user platform. It enables real-time user communication and dynamic interaction with digital evidence (Mystakidis, 2022).

In the preliminary study of this research, it was found that the use of virtual reality integrated with the Metaverse concept was used in English for the tourism class or English for Tourism Class at a state university in West Java, Tasikmalaya, Indonesia. In exploring the course topic, the lecturer provided the latest technology for students' engagement and excitement so that they can learn at their own pace. Topics such as accommodation, new tourist destinations and ecotourism are integrated with the use of immersive space and virtual reality. For example, creating an avatar for their own character that reveals their appearance. It is also used as an explanation of a tourist destination and other matters related to tourism issues which can be shifted virtually.

Many universities and educational institutions researched the topic of Metaverse. Other Researchers use the Metaverse in educational settings, taking a problem-based approach where teachers and students can pose problems and find potential solutions in an imaginary world using classroom and 3D avatars. As explained by previous researchers the Metaverse platform is an important tool for learners to increase motivation and immersion (Akour et al., 2022; Kanematsu et al., 2014; Suzuki et al., 2020). Based on previous relevant studies, the gap with this research is to determine learning activities using the Metaverse concept in the English for Tourism course and also to find out students' perception of using the Metaverse in the teaching and learning process. Furthermore, this study answers the following research questions:

- What are the potential benefits in implementing the metaverse concept in English for a tourism course?

Literature review

The concept of metaverse

A parallel or virtual environment connected to the physical world is described by the word "universe," which is combined with the prefix "meta," which indicates transcending. The term "Metaverse" was first used in 1992 by science fiction author Neal Stephenson in his book Snow Crash, which imagines a virtual reality-based replacement for the Internet. In this book, characters try to escape the suffering of the real world by interacting with various digital avatars and exploring a virtual world. Since then, it has been defined and viewed differently, including as embodied

internet/spatial internet, mirror world, a new type of Internet application and social form that integrates a variety of new technologies, and collective space in virtuality. (Tlili et al., 2022).

Khalil et al., (2023) argued that the core idea of Metaverse is to create a digital environment that makes social interaction stronger and more comparable to physical contact. The metaverse is a virtual 3D extension of the internet as well as a productive online learning environment that encourages intense indulgence. It gives users a lot of autonomy and freedom for in-person communication. The idea behind Metaverse is to create an intensely realistic world where users may create avatars that can interact with other users and recreate human collaboration and interaction in virtual environments.

Based on the explanation given by the scholars we can conclude that the Metaverse is a virtual universe that is entirely immersive and interactive, allowing users to engage with each other in real-time. It is a space where people can create their own avatars and interact with others in a variety of environments, from classrooms to social spaces. In the educational context, the Metaverse has the potential to revolutionize the way we learn. Imagine being able to join a lecture from the ease of your home, while still feeling like you are in the same room as the professor and other students. Or being able to explore historical sites or scientific concepts in a fully immersive environment. The possibilities are infinite.

Metaverse characteristics

The metaverses possess three key characteristics: interactivity, embodiment, and persistence (Yen et al., 2013. Interactivity in the metaverse enables users to engage and converse with others using their avatars. Users can affect artificial objects and have an impact on the attitudes and behaviours of others. The avatars that users choose can represent their sense of presence and the results in virtual teams. This relationship is reciprocal. Interactivity refers to the degree to which users can engage and participate, hence increasing the potential for individual or global interaction (Díaz et al., 2020). Furthermore, embodiment refers to the concept that avatars serve as representations of users within the metaverse, as stated by Blascovich (2002). It represents the presence of the players, including their hypothetical surroundings and the interaction between avatars and the environment. According to Blascovich (2002), the level of realism in a representation directly affects the sense of presence and immersion, as well as the level of involvement of users in the metaverse, as compared to face-to-face encounters. Furthermore, persistence guarantees the uninterrupted preservation of data, such as position, chats, and property objects. Furthermore, data can be readily recovered whether the users are reconnected or disconnected from the virtual realm (Abu-Salih, 2022). The metaverse platform remains operational and continues to evolve long after users have left the virtual environment.

Potential benefits of metaverse in higher education

The scholars found the potential benefits or the advantages of the Metaverse concept at higher education level as stated by Wang et al., (2023) it creates an innovative student educational approach that boosts students' motivation and autonomy in the classroom while also allowing for individualized instruction. They also claimed that the Metaverse encourages the revival of educational concepts. Metaverse is an interactive environment that allows students and educators to connect, communicate, and learn in a digital setting (Wang et al., 2022). The emerging reality of the metaverse alongside the notion of education offers the door to a variety of learning opportunities. The metaverse is also enabling collaborative learning, virtual experimentation, and personalized learning methodologies (Zhang et al., 2022). Metaverse enables people to participate

in a virtual world that closely resembles reality. In the metaverse, users can chat with avatars, cooperate in virtual spaces, and access various sorts of learning resources. The development of immersive technologies has accelerated the widespread usage of metaverse resources and innovations in teaching and learning. Students in a metaverse world powered by XR technology may engage with teachers while interacting with classmates via avatars, resulting in an immersive learning experience that boosts students' motivation. The researchers perceive that the potential benefits of utilizing the Metaverse in higher education are vast and as scholars said one major benefit is increased engagement among students. By providing a virtual environment where students can interact with course materials and each other, students are more likely to stay engaged and motivated throughout the course. Moreover, personalized learning chances are enhanced through the use of the Metaverse. Students can adapt their learning experience to their individual needs and preferences, agreeing to a more efficient and effective learning process.

English for tourism

English for tourism has become one of the most appealing among the many vocations that make up the world of English for specific purposes. This course brings real-world experiences to the classroom. For example, a program like this might place a strong emphasis on helping students who are preparing for graduate work in business administration build their reading skills, or it might help students who are studying English to become tour guides and develop their spoken skills. The majority of research in the area of English for Tourism has concentrated on the examination of the necessary abilities and demands in the workplace, as well as the suitability and sufficiency of teaching methods and resources. To incorporate what is necessary and omit what they regarded as less significant, Al-Khatib (2007) shed light on the perceptions of needs, wants, lacks, and attitudes toward English to assess the communicative demands of banking and tourist professionals. It has been noted that this kind of work greatly influences how English is used and evaluated. Offering trip guides, composing and sending emails and faxes, purchasing tickets online, using the internet, booking hotels online, and other similar activities were found to be the most frequent causes of communication among travel agency employees. English usage among travel agency users was found to be higher than that of banking users. The study's findings showed that writing is the most crucial ability for workers in the tourism industry. One thing to keep in mind when teaching an EOP course is that the tourism industry requires professional methods and proper language acquisition. Barancic (1998) used an integrated approach when creating a course for students studying culture and tourism to engage the students in the material he intended to teach. He devised an eight-part approach that included knowing the class and its knowledge, setting goals, deciding how to measure success, involving students in decision-making, creating a syllabus, choosing effective teaching strategies, and soliciting feedback from the students throughout the course. The approach's implementation revealed that the teachers' needs are more practical and less intellectual.

Metaverse in English for tourism

The metaverse concept provides a virtual learning environment helping students to get authentic learning materials in their English for tourism course. This platform enables students to build avatars and explore virtual worlds through VR and other immersive technologies. Students can also immersively create virtual offices, see popular tourist sights, and interact with other students in real time. English for Tourism in the metaverse offers a virtual experience without actual travel. This identifies engagement in the metaverse as interactions between individuals and

the virtual environment. Investigating numerous metaverse interaction topics, such as social dynamics, communication, identity, and community formation which can be found in the metaverse, individuals build intimate relationships and communities through shared interests and experiences. They also adapt and develop new modes of communication to suit the virtual environment. (Buhalis & Karatay, 2022; Gursoy et al., 2022b; Hsu et al.,2022; Lv et al. 2022; Zaman et al.,2022). In this research study, virtual reality is used in the English for Tourism. Instructor who use cutting-edge technology to keep students engaged and excited while allowing them to learn at their own speed. Topics such as accommodation, new tourist destinations, and ecotourism are merged using virtual reality. For example, they can create avatars to represent themselves, describe tourist attractions, and handle other tourism-related issues digitally.

Research method

This study offered a qualitative approach using the descriptive case study method. The researchers described the use of the Metaverse concept at a university in West Java, Tasikmalaya, Indonesia. This study included 5th-semester students who took English for Tourism (EFT) Class. The case study approach is appropriate for this research because it provides an in-depth examination of a unique case that is limited by time and setting. This case study aims to examine the process and benefits of applying the metaverse concept in the higher education level, as well as the experience of the participants at one of the universities in Tasikmalaya, West Java, Indonesia. It can be seen as a single, comprehensive case study because it involves a specific group of students and a constructor in a different environment (Baxter & Jack, 2015; ZDEL et al., 2001). This Investigation also attempts to uncover and describe the beliefs, and qualities that shape the behavior of an encounter in English for Tourism Class.

Data and sources of the data (setting and participants)

The setting of the research is an English for Tourism Class at one of the universities in Tasikmalaya, West Java, Indonesia. This Course was taken by undergraduate students in the 5th semester as one of the elective courses and has 3 credits in the English Education Department. During the teaching and learning process, the lecturer used Virtual reality as a medium in the teaching-learning process. The lecturer utilized *Spatial.io* app and *Readyplayerme* app in integrating the Metaverse concept.

The researchers took three participants in this research 1 female and 2 males to interview about their voices in experiencing the Metaverse concept. The participants had suitable characteristics for this research because they were actively participating in the learning process.

The procedure for collecting the data

Interviews are often used to collect data in qualitative research. The type of interview conducted by the researcher is determined by the information sought by the interviewer. Three possible interview structures can be used, namely; 1) highly structured or standardized, 2) semi-structures, 3) unstructured/informal (Oko, 1992). In this context, the researchers used semi-structured interviews. The interviewers used semi-structured questions to get demographic data and ask the interviewee to respond or define certain concepts or terms related to their perceptions of the potential benefits of metaverse concept implementation in the English for Tourism course using virtual reality media. The questions from three indicators for the participants adapted from Zhang et al., 2022 asking about the advantages or potential benefit of the metaverse. The indicators are collaborative learning, virtual experimentation, and personalized learning methodologies.

Insights gleaned from the semi-structured, in-depth interviews provided valuable perspectives. Participants expressed keen interest in integrating the metaverse into education, citing its immersive and interactive qualities as key factors in engaging students and enriching their learning experiences. Additionally, they recognized the metaverse's potential for personalized and adaptive learning, noting its capacity to tailor learning paths to individual students' needs, accommodating diverse learning styles and allowing for self-paced learning—an aspect considered highly advantageous.

The procedure for analyzing the data

In analyzing the data, the researchers used thematic analysis. Braun and Clarke (2015) assume that thematic analysis is an analytical procedure to analyze, manage, represent and inform the themes contained in a data set. The six phases make up a very useful framework for conducting this analysis. (1) getting familiar with the data; in this stage, the researchers read through the study sample from the interview to become accustomed to it and determine the form; (2) going to generate initial code; after becoming familiar with the data, the researchers classified it into some codes; (3) themes search; at this stage, the researchers analyzed in detail obtained codes from the data into themes; (4) themes were evaluated because of the frequency with which they emerged from the data (5)defining and identifying themes; the researchers presented themes pertinent to the research question (6) Producing the review, the explanation of the data shown at this stage, the researchers concluded the research findings.

Results

The Benefit of implementing the Metaverse concept in English for Tourism Course is the improvement of learners' engagement and digital literacy improvement.

Learners' engagement

In this study, spatial.io and readyplayers me were used as the metaverse platform. These websites-based provide a virtual learning environment which engages the student to practice their language skills and improve their language skills without fear of judgment or anxiety. The findings from the interview data show that most of the students gave positive responses and show their engagement towards the implementation of Metaverse in English for Tourism Class, this can be seen in the excerpt below:

> "*At first, using spatial was very unfamiliar, so it was quite difficult to use, but after getting used to it, it became easy*." P1

The view from Participant 1 is in line with the scholars who claimed that technology on the Metaverse can result in an immersive learning experience that boosts students' learning motivation (Tlili et al., 2022). From the interview session, the researchers can identify the characteristics of the Z generation that are remarkable in adapting the new concept in this case Metaverse concept. They are excited when they are introduced to the new atmosphere. As we can confirm other view from participant 2 and participant 3 who stated:

> *"I pretty much enjoyed the final project since it was my first time trying metaverse. But I had some technical issues such as lagging and unclear appearance on the screen. I think it is because of my device. However, this project is an interesting experience".* P2

> *"Metaverse is a new thing for me. At first, honestly, I felt skeptical about it because I think the ordinary V-con is just enough to facilitate the online meeting. But it turns out it brings the online meeting to another level, no more boring inside because the user can explore many things. Spatial.io, as the first metaverse I ever use, is user-friendly enough, because even without a bunch of guidance, as a beginner, I can operate it well in a relatively short time. With all the features provided, I think it will be useful for entrepreneurs in the field of tourism."* P3

The researchers found interesting views regarding the implementation of metaverse that the students at first sight have difficulties in applying the apps but then they enjoy experiencing the Metaverse concept when they are introduced to spatial.io and ready player me platforms. In fact, implementing a new platform needs effort but for the Z generation they can apply in a short time as stated by Participant 3. In line Prensky (2001) stated that "the brains of Digital Natives are likely to be physically altered as a result of the digital input they received as children and learning through digital games is one effective technique to reach out to Digital Natives in their "native language."

The students' emotional engagement can be seen effortlessly. As the reaction of learning activity, emotional engagement becomes one of the important factors on the students' success in learning. The students was very impressed with the use of metaverse as the learning platform for their learning. This can be seen by following statements:

> *"Surprised, I was surprised and impressed when I started working on this project, starting from making the avatar, and planning each space, until our Three Green Vacation Travel agency spaces were finished. Definitely, the metavere is pretty cool."* P1

Integrating new technologies in the teaching-learning process gave fresh oxygen for the student's realm in the classroom context. As researchers pinpoint on the participant 1 statement that they were surprised and impressed working in the progress on the project when they familiarize themselves with it. They were also satisfied after finishing the project. Another statement was given by participant 2 that:

> *"The project itself is way too interesting, it did not feel like doing the final exam. It is really enjoyable and fun, we can freely set up our own office by using the elements on the platform. I like the idea of utilizing technology in this final project."* P2

The students enjoyed and had fun while applying the Metaverse concept. They can autonomously choose what they like in customizing the platform, especially in modifying the *spatial.io* as the metaverse space and also in modifying the avatar in *ready player me* app. Autonomous learning through technology explained by the scholars in a positive view they defined that technology tools assisted in encouraging learners to be autonomous while also guiding learners to various materials and providing psychological encouragement to motivate learners. (Pratiwi & Waluyo, 2023)

> *"Excited. I really enjoyed and excited about working on this project, this is because I do it like playing a game. Even though it takes quite a long time to work on it because I'm a new user, I did not feel bored."* P3

Concerning the students' feelings, based on the data the words *surprised and impressed; enjoyable and fun; excited; I really enjoyed and excited; I did not feel bored* mentioned by the students when they go through the Metaverse apps in the teaching-learning process. It can be claimed that the student had positive feelings toward the platforms. In line, Chan and Hu (2023) appealed in their research finding that ultimately, the students demonstrated a good awareness of new technologies' potential and limits, as well as a favourable attitude towards adopting these technologies in their learning, research, and future professions.

Digital literacy improvement

Digital literacy encompasses the capacity to comprehend and utilize information from diverse sources in various formats, mostly through computers and the internet. The relevance of digital literacy in the context of the metaverse cannot be overemphasized. As the metaverse grows more prominent, teachers must gain the skills required to navigate and efficiently use these developing technologies. This includes knowing how to use digital technologies appropriately and successfully as a thinking human being. Digital literacy is more than just being tech-savvy; it's about using technology to achieve specific goals and make a good contribution to our ever-changing environment (Pangrazio, L, et al, 2020). In the context of implementing spatial.io and readyplayerme, Positive opinions were shown by the students after they completed the project. They have a lot of curiosity to learn more about the Metaverse concept and they got many benefits in doing the project using the Metaverse concept in English for Tourism Class, it can be seen in the following statement:

> *"From the experience, I can get something new, namely platform spatial.io using VR devices, and others. I am so happy and so excited to learn this course about tourism. Beside that the lecturer gave the knowledge so clearly"* P1

Giving clear and comprehensive instructions help the students in engaging the teaching-learning process. Participant 1 said that the lecturer gave the information about the topics so clearly. It can be assumed that clear instructions for the students are vital in the classroom context especially when the teachers integrate the new technology. Sointu et al. (2023) argued that a coherent framework of learning materials and consistency between pre-class and in-class activities lead to a successful flipped classroom course.

> *"I learned about what tourism is, what things must be paid attention to, then also about the important aspects in tourism. Using the metaverse here opened me to study technology more deeply for the learning process in the future. The topics about the hotel from the characteristics of one-five star hotels. I also used VR and I got my first experience in using VR and metaverse space."* P2

Students focus on the topic as one of the lessons learned mentioned by Participant 2 in experiencing the Metaverse concept. The researchers acknowledged that the new technology exposed students' attention to comprehending the materials. It can be confirmed that students enthusiastically occurred when the teacher implemented the new concept in the classroom particularly, Metaverse.

> *"I learned a lot from this experience, especially using technologies that I had never used before such as spatial.io, imooji, readyplayerme, even VR. After this my knowledge in using technology becomes wider. In addition, I also think that technology can really help in tourism. Technology can*

help promote tourist attractions, help travel agent, entrepreneurs create virtual office, and many more." P3

It was founded on the interview from Participant 3 stating that technology can help tourism and entrepreneurs in the tourism field. The researchers viewed the student as capable of adjusting his new information in another context. Those views on ability to integrate ideas are called transformative learning. The theory of transformative learning familiarized by Mezirow in V. X. Wang (2018) explained that transformation theory is based on the notion that humans are creatures who create meaning and learning is the process of constructing new or revised interpretations of the meanings of one's experiences and using this as a guide to behaviour.

Discussion

One key benefit is the ability to provide students with immersive and interactive learning experiences that go beyond traditional classroom settings. The Metaverse allows students to explore fascinating virtual environments and actively interact with course material, increasing deeper comprehension and retention. Additionally, the Metaverse enables individualized and adaptable learning. Teachers can provide a more personalized and effective learning experience by adapting educational content and experiences to students' particular needs and preferences (Frost et al., 2020; Hanid et al., 2020; Kounlaxay & Kim, 2020). Spatial.io and readyplayerme enable students to continue at their own pace, which improves their comprehension and overall educational performance. Another significant feature of the Metaverse in education is its ability to promote worldwide collaboration and knowledge exchange**.**

Nonetheless, teachers must guarantee a safe and reliable online environment for all users. This involves protecting student information and privacy. Research on the Metaverse in education has revealed several gaps that require attention. These gaps include investigating how to improve metaverse-based teaching and learning initiatives, thoroughly examining the benefits and drawbacks of learning in the metaverse, and comprehending how the metaverse might support conventional teaching techniques.

Metaverse technology gives new opportunities for immersive and interactive learning experiences. According to Salloum et al. (2023), metaverse technology allows students to actively participate in realistic simulations, problem-solving settings, and promotes experiential learning. An immersive environment can ignite students' curiosity, excitement, and enjoyment, leading to increased intrinsic motivation to study. The use of metaverse technology allows students to have greater power and independence while learning. Students can customize their learning paths, explore virtual environments at their own pace, and engage in self-directed activities. Independence can boost self-esteem and motivation. According to Seashore Louis (2020), using metaverse technology might boost students' intrinsic motivation through interesting and valuable learning experiences. The immersive aspect of the metaverse, along with interactive challenges and simulations, fosters interest, enjoyment, and curiosity, leading to higher student engagement. According to Hepplestone et al. (2011), the metaverse's autonomy and personalization align with self-determination theory. Metaverse technology enhances student motivation and engagement by providing options, control over their education, and opportunities to demonstrate their knowledge. According to Nelson Laird and Kuh (2005), metaverse technology can greatly impact student involvement, with learning motivation serving as a key mediator.

Completing learning assignments in the metaverse platforms requires digital literacy. Digital Literacy is the capacity to use many technologies and media to comprehend, share, and create meaning in critical and creative ways (Hague, 2010, p. 3). In the virtual environment of the metaverse, teachers and students are not only viewers but also the users of the platform. To use spatial.io and readyplayersme as the metaverse platform in this study, the students need to have the digital skill. The findings of the study show that the students feel that their digital literacy was improved through the implementation of the metaverse concept in the English for Tourism course. Yang et al (2022) mentioned that increasing their level of digital competitiveness in the metaverse would be advantageous for their academic life. Additionally, in a higher English education context, a high level of digital literacy can greatly support the development of obsessive competence in the use of communication and information technology (Diehl and Prins, 2008). Digital literacy has numerous advantages, including the development of critical thinking abilities, which are essential for success in the twenty-first century. Digital platforms offer a variety of tasks that require effort and provide obstacles, which encourages the growth of critical thinking skills. A learner who is digitally literate can evaluate material critically, weigh its importance, and decide whether it is relevant by applying reasoning and intellectual curiosity. Therefore, digital literacy gives students the ability to navigate an ever-expanding information pool wisely and sensibly, enabling them to become knowledgeable and considerate participants in a digitally advanced world.

Conclusion

This study investigated the concept of Metaverse used in teaching the learning process in English for a Tourism Course. In this research, the researchers explained the potential benefit of *Spatial.io* and *Ready Player Me* app in the teaching-learning process. Based on the findings, the researchers clarified two themes. The results indicate that incorporating metaverse concepts into English for tourism courses has two advantages. Two metaverse platforms, spatial.io and readyplayerme, were used in the study. The results of the study demonstrated that students had a favorable opinion of using these platforms. By incorporating a virtual world into a metaverse notion, learning can become more immersive and interactive, which increases student engagement. Additionally, students' digital literacy was enhanced because they must be able to use the platform. It can be assumed that the general indication among the participants was positive toward metaverse concepts and they were more interested in trying the metaverse technology. It also showed that there were positive vibes in using the metaverse in higher education levels. Most of the students agreed that the metaverse concept was a good idea when the lecturer integrated the current technology toward the project. This study has some limitations because it only focuses on the implementation of *spatial.io* and *ready player me* platforms and students' viewpoints. Some recommendations for other researchers can implement other platforms which can be integrated into the Metaverse concept and also can give contribution to the theory's development in this field. Lastly, access to resources is greatly improved in the Metaverse. Students can access a wider range of materials and information from anywhere in the world, breaking down barriers to learning and creating a more inclusive educational environment.

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References

Abu-Salih, B. (2022). MetaOntology: toward developing an ontology for the metaverse. *Frontiers in big data*, *5*, 998648.

Akour, I. A., Al-Maroof, R. S., Alfaisal, R., & Salloum, S. A. (2022). A conceptual framework for determining metaverse adoption in higher institutions of gulf area: An empirical study using hybrid SEM-ANN approach. *Computers and Education: Artificial Intelligence*, *3*, 100052. https://doi.org/10.1016/j.caeai.2022.100052

Al-Khatib, M, (2005). English in the Workplace: An Analysis of the communication Needs of Tourism and Banking Personnel. Asian EFL Journal, 7(2).

Altundas, S., & Karaarslan, E. (2023). Cross-platform and personalized avatars in the metaverse: Ready player me case. In *Digital twin driven intelligent systems and emerging metaverse* (pp. 317-330). Singapore: Springer Nature Singapore.

Barancic, M. (1998). On Realistic Approaches in ESP Syllabus Design. English for specific purposes: Contradictions and Balances. Pp.211-217

Baxter, P., & Jack, S. (2015). Qualitative Case Study Methodology: Study Design and Implementation for Novice Researchers. *The Qualitative Report*, *13*(4), 544–559. https://doi.org/10.46743/2160-3715/2008.1573

Blascovich, J. (2002, September). A theoretical model of social influence for increasing the utility of collaborative virtual environments. In *Proceedings of the 4th international conference on Collaborative virtual environments* (pp. 25-30).

Buhalis, D., & Karatay, N. (2022). Mixed reality (MR) for generation Z in cultural heritage tourism towards metaverse. In *Information and communication technologies in tourism 2022: Proceedings of the ENTER 2022 eTourism conference, January 11–14, 2022* (pp. 16-27). Springer International Publishing.

Chan, C. K. Y., & Hu, W. (2023). *Students' voices on generative AI: Perceptions, benefits, and challenges in higher education*. http://arxiv.org/abs/2305.00290

Clarke, V., Braun, V., & Hayfield, N. (2015). Thematic analysis. *Qualitative psychology: A practical guide to research methods*, *3*, 222-248.

Díaz, J., Saldaña, C., and Avila, C. (2020). Virtual world as a resource for hybrid education. Int. J. Emerg. Technol. Learn. (iJET) 15, 94–109. doi: 10.3991/ijet.v15i22.14393

Fadilah, P. (2023). Penerapan Spatial. Io Sebagai Sarana Edukasi Dan Promosi Kampus Universitas Xyz Indonesia. *Jurnal Teknologi Pintar*, *3*(10).

Frost, J., Delaney, L., & Fitzgerald, R. (2020). Exploring the application of mixed reality in nurse education. *BMJ Simulation and Technology Enhanced Learning*. https://doi.org/10.1136/bmjstel-2019-000464.

Gursoy, D., Malodia, S., & Dhir, A. (2022). The metaverse in the hospitality and tourism industry: An overview of current trends and future research directions. *Journal of Hospitality Marketing & Management*, *31*(5), 527-534.

Hague, C. (2010). Digital literacy across the curriculum. Futurelab

Hanid, M. F. A., Mohamad Said, M. N. H., & Yahaya, N. (2020). Learning strategies using augmented reality technology in education: Meta-analysis. *Universal Journal of Educational Research*. https:// doi.org/10.13189/ujer.2020.081908.

Hsu, M. J., Ting, H., Lui, T. W., Chen, S. C., & Cheah, J. H. (2022). Guest editorial: Challenges and prospects of AIoT application in hospitality and tourism marketing. Journal of Hospitality and Tourism Technology, 13(3),349–355.doi: 10.1108/JHTT-05-2022-326.

Hwang, G.-J., & Chien, S.-Y. (2022). Definition, roles, and potential research issues of the metaverse in education: An artificial intelligence perspective. *Computers and Education: Artificial Intelligence*, *3*(May), 100082. https://doi.org/10.1016/j.caeai.2022.100082

Kanematsu, H., Kobayashi, T., Barry, D. M., Fukumura, Y., Dharmawansa, A., & Ogawa, N. (2014). Virtual STEM class for nuclear safety education in metaverse. *Procedia Computer Science*, *35*(C), 1255–1261. https://doi.org/10.1016/j.procs.2014.08.224

Khalil, A., Haqdad, A., & Sultana, N. (2023). Educational metaverse for teaching and learning in higher education of Pakistan. *Journal of Positive School Psychology*, *7*(2), 1183–1197. http://journalppw.com

Kounlaxay, K., & Kim, S. K. (2020). Design of learning media in mixed reality for LAO education. *Com-puters Materials and Continua*. https://doi.org/10.32604/CMC.2020.09930

Lv, Z., Qiao, L., Li, Y., Yuan, Y., & Wang, F.-Y. (2022). BlockNet: Beyond reliable spatial Digital Twins to Parallel Metaverse. Patterns, 3(5), 100468. doi: 10.1016/j.patter.2022.100468

Merriam, S. B. (2009). Qualitative research: A guide to design and implementation. San Francisco, CA: Jossey-Bass.

Mystakidis, S. (2022). Metaverse. *Encyclopedia*, *2*(1), 486–497. https://doi.org/10.3390/encyclopedia2010031

Oko, T. (1992). Review of Interviewing as Qualitative Research: A Guide for Researchers in Education and the Social Sciences. In *Contemporary Psychology: A Journal of Reviews* (Vol. 37, Issue 7). https://doi.org/10.1037/032390

Pangrazio, L., Godhe, A.-L., & Ledesma, A. G. L. (2020). What is digital literacy? A comparative review of publications across three language contexts. *E-Learning and Digital Media*, *17*(6), 442-459. https://doi.org/10.1177/2042753020946291

Pratiwi, D. I., & Waluyo, B. (2023). Autonomous learning and the use of digital technologies in online English classrooms in higher education. *Contemporary Educational Technology*, *15*(2). https://doi.org/10.30935/cedtech/13094

Prensky, M. (2001). Digital natives, digital immigrants part 1. *On the Horizon*, *9*(5), 1–6. https://doi.org/10.1108/10748120110424816

Rasyida, R., Nurdin, E. A., & Rasim, R. (2023). Pembelajaran Berbasis metaverse – virtual reality menggunakan spatial.io dengan model discovery learning untuk meningkatkan minat dan pemahaman siswa. *Jurnal Pendidikan Tambusai*, *7*(2), 15875–15882. https://doi.org/10.31004/jptam.v7i2.8880

Sointu, E., Hyypiä, M., Lambert, M. C., Hirsto, L., Saarelainen, M., & Valtonen, T. (2023). Preliminary evidence of key factors in successful flipping: Predicting positive student experiences in flipped classrooms. *Higher Education*, *85*(3), 503–520. https://doi.org/10.1007/s10734-022-00848-2

Salloum, S., Al Marzouqi, A., Alderbashi, K.Y., Shwedeh, F., Aburayya, A., Al Saidat, M.R., Al-Maroof, R.S., (2023). Sustainability model for the continuous intention to use metaverse technology in higher education: A case study from oman. Sustainability 15, 5257

Suzuki, S. N., Kanematsu, H., Barry, D. M., Ogawa, N., Yajima, K., Nakahira, K. T., Shirai, T., Kawaguchi, M., Kobayashi, T., & Yoshitake, M. (2020). Virtual experiments in metaverse and their applications to collaborative projects: The framework and its significance. *Procedia Computer Science*, *176*, 2125–2132. https://doi.org/10.1016/j.procs.2020.09.249

Tlili, A., Huang, R., Shehata, B., Liu, D., Zhao, J., Metwally, A. H. S., Wang, H., Denden, M., Bozkurt, A., Lee, L. H., Beyoglu, D., Altinay, F., Sharma, R. C., Altinay, Z., Li, Z., Liu, J.,

Ahmad, F., Hu, Y., Salha, S., … Burgos, D. (2022). Is metaverse in education a blessing or a curse: a combined content and bibliometric analysis. *Smart Learning Environments*, *9*(1). https://doi.org/10.1186/s40561-022-00205-x

Wang, Q., Tang, L., & Wang, Y. (2023). Potential applications of the metaverse in higher English education. *Open Journal of Social Sciences*, *11*(01), 450–459. https://doi.org/10.4236/jss.2023.111031

Wang, V. X. (2018). Critical theory and transformative learning. *Critical Theory and Transformative Learning*, *May 2018*, 1–333. https://doi.org/10.4018/978-1-5225-6086-9

Wang, M., Yu, H., Bell, Z., & Chu, X. (2022). Constructing an edu-metaverse ecosystem: A new and innovative framework. *IEEE Transactions on Learning Technologies*, *15*(6), 685–696. https://doi.org/10.1109/TLT.2022.3210828

Yen, J. C., Tsai, C. H., and Wu, M. (2013). Augmented reality in the higher education: Students' science concept learning and academic achievement in astronomy. Proc. Soc. Behav. Sci. 103, 165–173.doi: 10.1016/j.sbspro.2013.10.322

Zaman, U., Koo, I., Abbasi, S., Raza, S. H., & Qureshi, M. G. (2022). Meet digital twin in space? profiling international expat's readiness for metaverse space travel, tech-savviness, covid-19 travel anxiety, and travel fear of missing out. sustainability. doi: 10.3390/su14116441

ZDEL, Hinkin, T. R., Tracey, J. B., Enz, C. A., Riris, R. H., Pixler, P. W., م. و. د, عامر., Treloar, C., Champness, S., Simpson, P. L., Higginbotham, N., Description, A., Outcome, E., Anderson, D. ., Krathwol, L. ., Maháthera, N., Geometry, R., Analysis, G., & Yin, R. K. (2001). Case study research and applications: Design and methods. In *Journal of Hospitality & Tourism Research* (Vol. 53, Issue 5). https://doi.org/10.1177/109634809702100108

Zhang, X., Chen, Y., Hu, L., & Wang, Y. (2022). The metaverse in education: Definition, framework, features, potential applications, challenges, and future research topics. *Frontiers in Psychology*, *13*(October), 1–18. https://doi.org/10.3389/fpsyg.2022.101630.