

BEYOND BRICK-AND-MORTAR EDUCATION: USING METAVERSE FOR INTERCULTURAL INTERACTIONS TO PROMOTE MUTUAL UNDERSTANDING

UMI H. SAIDAH

ABSTRACT

Fostering mutual understanding across cultures is always Fulbright's primary mission. This article describes how metaverse can contribute to this goal through intercultural interactions between avatar-context-avatar representing English as a Foreign Language (EFL) learners in Indonesia, a native instructor in the United States, and digital objects in the virtual world. In this article, a general notion of metaverse is first explored, followed by how it is used for interactions to promote intercultural competence. Finally, challenges and impacts are presented.

Keywords: Metaverse • 3D virtual world • intercultural interaction • intercultural competence • mutual understanding



INTRODUCTION

I am a 2018 Fulbright scholar from Indonesia, studying in a PhD program in educational technology and second language acquisition at the University of South Florida. Here are my reflections on using metaverse for intercultural interactions between avatar-context-avatar. Avatars are representations of users in metaverse, while context includes any objects in the virtual world. The avatar-avatar interaction takes place between university-level English as a Foreign Language (EFL) learners in Indonesia and a native English instructor in the United States via verbal, written, and motion contacts. The avatar-context interaction relates to how the avatars engage with the objects and the virtual world.

WHAT IS METAVERSE?

The term metaverse is not new, as it was coined by Neal Stephenson in his science-fiction novel *Snow Crash* published in 1992. My introduction to metaverse happened in November 2021 when Facebook changed its name to Meta. I decided to join an international symposium held virtually on metaverse by a public research university in South Korea. As the notion of participating in a symposium on metaverse was new to me, I was hesitant at the beginning. Questions of what and how kept going around in my head. Fortunately, my professor, who shared the event with me and became one of the opening panelists at the symposium, offered an orientation session. Prior to the session, he asked me to download the metaverse app, create an

account, and customize my avatar—a virtual figure representing myself in the 3D virtual world. He then told me how to navigate metaverse for the purpose of the symposium, including how to move around (e.g., walk, run, sit, stand up, shake hands, waive etc.), how to interact with other avatars (via voice chat, text chat, or motion) and context (by zooming in/out, scrolling up/down, or playing/pausing the objects in the virtual world), and how to present (e.g., upload slides, use a pointer, run slides etc.). I found the orientation meaningful as it helped me familiarize myself with the metaverse and build my confidence to do tasks in it. For the first time, I did my symposium presentation and attended other presenters' presentations on the metaverse. It was a fascinating experience.

Metaverse as an advancement of virtual reality (VR) technology holds promise as an effective educational technology. My professor and I decided to engage further with the technology by conducting a systematic literature review on the use of VR for language learning (under revision). From reviewing 32 articles published between 2012 and 2021, we found that VR promotes linguistic gain (i.e., vocabulary acquisition) and nonlinguistic gain (i.e., motivation). It also has the potential to reduce foreign language anxiety. VR facilitates vocabulary acquisition in a way that provides a high-fidelity environment that engages students to learn the target vocabulary in context. Additionally, its game-like characteristics promote motivation. Regarding anxiety, VR technology supports anonymity, in which some degree of users' actual identities are concealed through avatar representations, which can reduce users' anxiety. Upon conclusion of the review, we agreed to do my dissertation research using metaverse and examine the effects of metaverse on intercultural communicative competence, foreign language anxiety, and motivation.

METaverse FOR INTERCULTURAL INTERACTIONS TO PROMOTE INTERCULTURAL COMPETENCE

In the EFL context, learning the target language culture is traditionally done through learner-instructor interaction or learner-content interaction in an in-person format. With the advancement of technology, such learning may alternatively be bridged by metaverse. Metaverse platforms can help users from different geographical locations interact and learn cultural knowledge together. The interaction happens between users (avatar-avatar interaction) and users and digital content displayed in the virtual world (avatar-context interaction). The digital content includes images, videos, illustrations, slideshows, online articles, and interactive stickers. The digital displays are purposefully designed and developed for intercultural interactions to facilitate intercultural learning. The avatar-avatar interactions may take place via voice

or text chat. The avatar-context interactions may occur via running slideshows forward/backward or browsing further cultural information via browsers available in the virtual world. Such user-user and user-context in the virtual world are cross-cultural in the sense that they can cross cultural boundaries.

In my research, I study Indonesian EFL learners in their learning of target language culture via avatar-context-avatar interactions on metaverse. I began the study consulting three English as a Second Language (ESL) experts at the University of South Florida to identify cultural topics that are appropriate for university-level EFL learners. Based on their recommendations, I decided to use the Pathways book series from National Geographic Learning as a reference and picked five cultural topics: the Ukulele; Hmong Americans; urban challenges and innovation; Amish in America; and cowboy life and culture. From the topics, I developed learning objectives, learning content, intervention procedures using metaverse as a learning environment and evaluation. Next, I collaborated with a university in Indonesia as a research site and recruited two research site coordinators to help me with permits, recruitment of participants, and informed consent forms. I recruited a native ESL/EFL instructor to facilitate the intercultural interactions. I requested an onboarding session from Virbela, the metaverse platform which I purchased my metaverse suite from. The onboarding was offered to the instructor and research site coordinators as well because it was their first experience using metaverse. We launched the intervention sessions beginning with five intercultural interaction tasks.

THE INTERACTIONS

Two main interactional strategies were applied in the interventions. These were activating learners' background knowledge to connect to the topics through questioning and answering and comparing Indonesian and American cultures to identify subtle and significant similarities and/or differences. It is worth highlighting that in accordance with standards for foreign language learning by the American Council on the Teaching of Foreign Languages (ACTFL), learning the target language culture in a foreign language learning context should be concurrent with reflecting on learners' own culture. Learners' own culture provides entry points that allows them to connect what they already know with what they will learn in order to develop their intercultural knowledge and skills. In addition, the ACTFL highlights that cultural competence in language learning includes understanding cultural products and practices in order to construct their cultural perspectives.

For example, to communicate about the Amish the instructor provides an entry point of interaction by talking about a similar group of people in Indonesia, the Baduy. The cultural aspects discussed about the Baduy included schooling practices, use of technology, transportation choice, fashion style, and residential locations. After such interactions, the instructor invited learners to explore digital content about the two cultures displayed in

the rooms in the virtual world. Learners were given a chance to interact with the cultural displays consisting of images, illustrations, videos, articles, and slideshows. After engaging in the immersive learning experience, learners assembled outside the display rooms to interact with the instructor about the target language culture they just learned. The way the intercultural interactions were facilitated was by comparing and contrasting through analyzing the similarities and/or differences between the target language culture learned with their own culture communicated at the entry point. All the intercultural interactions were between avatar-context-avatar.

Another example is learning about urban challenges and innovations. To connect the EFL learners with the urban challenges and innovations in the United States, the instructor first engaged them in a discussion about air pollution and the dense population in Indonesia's capital city, Jakarta. The instructor explored their perspectives about causes and solutions regarding air pollution and the dense population in the city. Gaining learners' perspectives that relate to their life experiences, the instructor invited them to immerse themselves in cultural displays. The displays showed air pollution in Los Angeles and an innovative solution of smog-eating roof tiles to reduce pollution. The displays showed the High Line, a public space in New York City that was repurposed from an unused railroad. After the immersion experience, learners interacted with the native instructor about the two issues. Even though my research only focused on voice chat interactions, the nature of metaverse allowed written and motion interactions: for example, via virtual sticky notes and emotes available in the virtual world.

Another avatar-context-avatar intercultural interaction was about cowboy life and culture. The entry point of the interaction was about animal herders in Indonesia. We built learners' personal relevance through interaction about the job description, fashion style, and job transformation of animal herders in Indonesia from the past to the present. Subsequently, we invited learners to immerse themselves by interacting with cultural displays in the suite in the 3D virtual world. After the immersion, the instructor interacted with learners about both animal herders in Indonesia and cowboys in the U.S. by comparing and contrasting the two. For example, both look after cattle; however, this has declined due to animal domestication. A difference was their clothing. Cowboys wear typically wear boots and chaps, whereas Indonesian cattle herders do not wear this equipment.

From intercultural interactions, learners are expected to value the similarities and respect the differences. Such awareness is necessary in foreign language learning for effective communication across cultures. The findings of my research suggest that learner experience of participating in intercultural interactions may contribute to constructing their perspectives of the target language culture that is similar and/or different from their own. The intercultural interactions between EFL learners in Indonesia and a native speaker in the US may facilitate a joint effort to collaboratively construct

new cultural perspectives. By being reflective of their own culture and open to another culture, both parties mutually cultivate active construction of respect and understanding that identifies and sympathizes with each other. Therefore, through the study of cultures, we promote mutual understanding that appreciates similarities, values differences, strengthening relationships between people.

CHALLENGES

There are a few challenges to consider. First, the United States and Indonesia are in different hemispheres with different time zones. Time commitment toward the intervention should be communicated as clearly as possible to all parties associated with it, including the EFL learners, native instructors, research site coordinators, supervisors, and researchers. Agreement on the time commitment entails the smoothness of the intervention; otherwise, the 12-hour time difference could be a challenge. Second, there are specific hardware and software requirements for metaverse to run smoothly. Third, it is important to organize a trial session prior to the intervention that includes technical checking and first-person navigation of the metaverse. The technical check is to ensure the compatibility between the device and application to support avatar-context-avatar intercultural interactions that allow verbal, written, and motion interactions between avatars without interruption.

IMPACT OF MY RESEARCH

This project provided me a rich research experience. I never thought that taking a new challenge of attending and presenting on metaverse would open up a way for my research interests.

I hope the experience of learning target language culture on metaverse serves as an alternative to traditional classroom learning. As the world becomes increasingly digital, adopting and implementing technology in order to achieve effectiveness through innovation is inevitable. Using metaverse increases opportunities for learning the target language culture directly with a native speaker, too often rare in the EFL context due to geographical distance. From a post-treatment interview, I found that having intercultural interactions on metaverse gave Indonesian EFL learners a new learning environment that is different from the usual.

Learning cultures in the metaverse was more engaging because we all ran an application, walked around, and were still focused. It felt real.

To quote one participant from the post-treatment interview: “There are many differences between intercultural learning in the classroom and in the metaverse. In the classroom, students usually present, or a lecturer explains, and then students take notes. It is boring. Learning cultures in the metaverse was more engaging because we walked around and were still focused. It felt real.”

Additionally, learning about the Amish and the Baduy, the Hmong Americans and the Chinese Indonesians, helped EFL learners expand their perspectives on cultural diversity in the two countries.

To quote another interviewee: “It is good to know that American culture is unique. The uniqueness comes from cultural diversity. Just like Indonesia, which consists of diverse groups, I now know that the United States is a lot more than American Indians or Native Hawaiians. They have many diverse groups. We compared the diversity in Indonesia and the United States, to gain a new perspective on American culture.”

NOTES

1. Fulbright to foster mutual understanding, see Bureau of Educational and Cultural Affairs, “Fulbright program overview,” accessed August 22, 2023, <https://eca.state.gov/fulbright/about-fulbright/fulbright-program-overview>
2. Definitions of metaverse, see Davy Tsz Kit Ng, “What is the metaverse? Definitions, technologies and the community of inquiry,” *Australasian Journal of Educational Technology* 38, no. 4 (2022): 190-205. <https://doi.org/10.14742/ajet.7945>
3. More information about metaverse, see Stylianos Mystakidis, “Metaverse,” *Encyclopedia 2*, (2022): 486–497. <https://doi.org/10.3390/encyclopedia2010031>
4. World-Readiness Standards for Learning Languages by the American Council on the Teaching of Foreign Languages, accessed July 14, 2023, <https://www.actfl.org/educator-resources/world-readiness-standards-for-learning-languages>





Umi Saidah, observing intercultural interactions to promote intercultural competence on metaverse, Spring 2023.

BIOGRAPHY

Umi H. Saidah received a DIKTI-funded Fulbright Grant for her PhD study at University of South Florida. For her intervention research in Indonesia, she received an Overseas Travel Grant from The American-Indonesian Cultural & Educational Foundation, Inc. (AICEF). She would like to thank Dr. Sanghoon Park for his supportive mentorship throughout her dissertation research. She can be reached at umisaidah@usf.edu
