Chapter 2
Virtual Reality–Mediated Language Learning:
A Case Study of Immersive Learning in the Metaverse

Tricia K. Thrasher

University of Illinois, USA

Maria Christoforou

https://orcid.org/0000-0001-7598-6159

Cyprus University of Technology, Cyprus

Amelia Ijiri

https://orcid.org/0000-0002-2266-9499

Kyoto Institute of Technology, Japan

ABSTRACT

With the COVID-19 pandemic exacerbating educators' reliance on digital tools, virtual reality (VR) has become more prevalent in education. VR has also become more accessible through mainstream headsets (e.g., Meta Quest 2). VR offers immersive, low-risk environments for students to engage in authentic language interactions. However, the integration of VR into language education remains exploratory, often relying on commercial off-the-shelf VR applications which were not designed for education. Moreover, existing studies on VR are largely short-term and lack pedagogical depth. This case study addresses these gaps by documenting two language students' experiences learning English in Immerse, the first VR platform designed specifically for language teaching and learning, over an eight-week period. By exploring long-term immersion and pedagogical implications, the study contributes to understanding VR's potential in fostering meaningful language learning experiences.

INTRODUCTION

Following the guidelines outlined by the Modern Language Association (MLA, 2019), effective foreign language pedagogy is enhanced by employing teaching methods that go beyond textbooks. This includes aligning curriculum with student needs, encouraging non-textbook activities, and fostering active student engagement. These practices facilitate the acquisition of advanced linguistic proficiency, cultural insights, and refined pronunciation skills (MLA, 2019). VR in language education can revolutionize traditional classroom approaches by providing immersive and interactive learning experiences that align with these guidelines set forth by the MLA. Specifically, VR provides students access to low risk (Thrasher, 2022), immersive, and interactive learning environments in which they can have meaningful and contextualized learning experiences that cannot easily be replicated in traditional classroom settings (Berti, 2021; Christoforou et al., 2019), such as ordering food from a restaurant or navigating an airport. VR has also eliminated physical classroom boundaries, serving as an immersive self-access language learning space (Jauregi-Ondarra et al., 2022b), and as a safe space for synchronous telecollaborative projects (Gruber et al., 2023).

The integration of VR into language education has gained momentum due to the growing accessibility of VR platforms and applications. The COVID-19 pandemic especially highlighted the reliance on digital media in education, with VR emerging as a promising tool (Kondratiuk et al., 2022) that can provide more hands-on simulated experiences through the affordance of immersion (Lan, 2020). The use of VR in language education has been further accentuated by the increasing prevalence of commercial VR platforms, which cater to a wide range of educational needs and disciplines. Indeed, VR technology has become mainstream with standalone headsets like the Meta Quest 2 and HTC Vive Focus 3 (Sadler & Thrasher, 2021) and the newly released Meta Quest 3.

However, the implementation of VR headsets in foreign language educational settings is still in its exploratory phase, mostly using commercial off-the-shelf (COTS) VR applications, which were not necessarily developed for educational purposes (Frazier et al., 2021). However, in order to achieve pedagogical outcomes and help students reach their fullest potential with VR, Frazier et al. (2021) introduced the *VR Application Analysis Framework,* divided into four distinct methods (immersive capacity, cognitive load, purpose, and communicative capability) of assessing a VR application before implementing it in a classroom. They use the term "lenses" to describe these methods, as they enable instructors to examine particular aspects of the application. *Immersive capacity* pertains to the students' sense of "being there" and the extent to which the application will allow them to use their whole body in the immersive environment. *Cognitive load* relates to the amount of

Related Content

Gain Time and Differentiate to Meet Student Needs in University Learning Environments: A Flipped Learning Approach
Lauren Beth Rosen, Magara Maedaand Natalia Roberts (2017). *Flipped Instruction Methods and Digital Technologies in the Language Learning Classroom (pp. 159-182).*
www.irma-international.org/chapter/gain-time-and-differentiate-to-meet-student-needs-in-university-learning-environments/164806

Crowd-Sourcing with the Lingobee App: A Study in Facilitating Pollination across Language and Culture in Self-Directed Learning
Rebecca Adlard, Tom Ottwayand Emma Procter-Legg (2012). *International Journal of Computer-Assisted Language Learning and Teaching (pp. 17-33).*
www.irma-international.org/article/crowd-sourcing-lingobee-app/74709

Interactive Learning Between Chinese Students Learning English and English Students Learning Chinese on the Platform of Wiki
Dongshuo Wang, Bin Zouand Minjie Xing (2013). *Explorations of Language Teaching and Learning with Computational Assistance (pp. 212-228).*
www.irma-international.org/chapter/interactive-learning-between-chinese-students/67471

Review of Recent Research on L2 Digital Multimodal Composing
Mimi Liand Miriam Akoto (2021). *International Journal of Computer-Assisted Language Learning and Teaching (pp. 1-16).*
www.irma-international.org/article/review-of-recent-research-on-l2-digital-multimodal-composing/279615

To What Extent Do Pictures Support Malaysian Children's Comprehension of Stories?: An Eye-Tracking Experiment
Chee Hao Sue, Siew Ming Thang, Hoo Keat Wong, Jennifer Poh Sim Tan, Fung Lan Looand Rosalind Ahju (2022). *International Journal of Computer-Assisted Language Learning and Teaching (pp. 1-17).*
www.irma-international.org/article/to-what-extent-do-pictures-support-malaysian-childrens-comprehension-of-stories/310080