

## **ABSTRACT**

**CREATIVE PROJECT:** VIRTUAL REALITY FOR CLASSROOM LANGUAGE LEARNING

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**PAGES:** 2

With this creative project, I sought to design and develop a Virtual Reality (VR) experience to support second language learning in university classrooms. The prototype links language learning through traditional classroom curricula to language acquisition through virtual environments where world language applications can be practiced in simulated scenarios with native-speaking characters. The design and development of the project is guided by interview, ethnographic, and secondary research; development and programming language technical capabilities; and usability design principle frameworks. Research and Thematic Analysis is used to identify key considerations and best practices for integrating a digital tool of this nature into traditional classroom settings. Research insights shape the foundation of the user experience design, directing its focus on utilizing VR as a supplemental practice space for hearing and speaking a language in conversational scenarios. Taking technical capabilities into consideration, this project leverages the affordances of the Unity Real-Time Game Engine, C# programming language, OpenAI Whisper Speech Recognition System, and

Oculus Quest 2 Head Mounted Display. The capabilities of these tools directly influence the mapping of the user flows and interaction setups within the experience. Usability heuristics and design principles for VR products guide the creation of user interface elements to ensure optimal visual accessibility, intuitiveness of layout, and appropriate signaling to effectively guide the user through the experience. By combining technological capabilities of development with the research-informed design, this project introduces a novel application of VR for the language learning use case. It is designed to complement traditional classroom teaching methods rather than replace them, offering students an engaging platform for practical language practice. Overall, this prototype is an exploration of VR's potential as an educational tool that can extend language learning beyond the classroom—it provides students with an immersive space for reinforcing their linguistic skills, connecting in-class theory with real-world practice.