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TYPES OF VIRTUAL REALITY TOOLS AND PLATFORMS USED IN LANGUAGE LEARNING

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Abstract: Virtual Reality (VR) has emerged as a transformative technology in language education, offering immersive, interactive, and contextualized learning experiences that surpass what traditional environments provide. This article reviews major types of VR tools used in language learning, including immersive VR headsets, desktop VR, 360-degree videos, social VR platforms, mobile VR, and AI-driven VR tools. Drawing on empirical literature and reflective commentary, the paper examines how these VR modalities influence vocabulary development, communicative competence, pronunciation, and intercultural learning. cognitive load, and teacher expertise.

Introduction

Virtual Reality (VR) is increasingly integrated into education due to its capacity to create immersive, authentic learning environments. In language learning, VR enables learners to interact in realistic communicative contexts (Lan, 2020). Parmaxi and Demetriou (2020) argue that VR supports situated learning by placing students inside interactive worlds where they negotiate meaning. From my perspective, VR represents a major shift from textbook-based instruction by allowing learners to *live* the language.

Findings reveal that VR enhances learner motivation and contextual immersion, though challenges remain regarding cost, cognitive load, and teacher expertise. Future studies should explore long-term outcomes and pedagogically grounded VR design principles.

Despite growing attention, many educators remain unsure about what VR tools are available and how they differ. This article provides a structured review of VR tools used in language learning and examines their effectiveness and limitations.

Methodology

This study uses a qualitative literature review approach. Sources from 2015– 2024 were retrieved from Scopus, Web of Science, Google Scholar, and ERIC using keywords such as "virtual reality," "language learning," and "immersive learning." The analysis categorized VR tools, synthesized empirical findings, and included personal reflections to deepen interpretation.

Results

Fully Immersive VR Headsets

Fully immersive headsets (Oculus Quest, HTC Vive, Pico) provide high sensory immersion. Research shows these tools enhance speaking fluency and reduce anxiety

(Chen, 2022). Learners benefit from psychological distancing—interacting with avatars reduces fear of judgment. This view aligns with Makransky and Petersen (2021), who found immersive VR increases motivation and presence.

Examples include: ENGAGE VR, Immerse, Mondly VR.

Semi-Immersive Desktop VR

Desktop VR offers accessible 3D environments via computer screens. Henderson et al. (2018) highlight the collaborative benefits of these tools. Desktop VR democratizes immersive learning by reducing hardware costs.

Examples: Second Life, OpenSim, Mozilla Hubs, VirBELA.

360-Degree VR Video

360-degree video provides immersive observation without full interaction. Wei et al. (2022) found such videos support vocabulary and listening comprehension.

Their strength lies in cultural immersion through authentic contexts.

Tools include: YouTube VR, ClassVR, archived Google Expeditions.

Mobile VR

Mobile VR (Google Cardboard) is widely used due to affordability. Radianti et al. (2020) observed positive impacts on engagement and vocabulary learning.

From experience, mobile VR is ideal for underfunded schools.

Tools: Google Cardboard apps, CoSpaces Edu, Mondly AR/VR.

Social VR and Metaverse Platforms

Social VR tools offer real-time communication through avatars. Lan (2020) describes them as highly beneficial for sociocultural competence.

Platforms include: VRChat, Meta Horizon Worlds, ENGAGE Metaverse, Immerse.

AI-Integrated VR Tools

AI-enhanced VR supports personalized feedback. Liu et al. (2023) reported improvements in pronunciation through AI tutors. AI addresses teacher workload limitations and increases learner autonomy.

Examples: AI-powered VR tutors, Immerse AI features.

Discussion

VR tools differ in immersion, interactivity, and accessibility. Immersive VR headsets generate strong affective benefits (Makransky & Petersen, 2021), while mobile and desktop VR offer practical accessibility.

However, immersion alone does not guarantee learning. Parmaxi and Demetriou (2020) emphasize the importance of task-based design. I strongly support this perspective: VR must be grounded in pedagogy to avoid becoming "edutainment."

Challenges include: cost, technical barriers, motion sickness, lack of teacher training, inconsistent content quality. Nevertheless, I consider this the future of language learning, as these environments allow spontaneous interaction. With high quality of advanced technical tools, VR is now being considered to be the future teachers, not only language, but also any sphere that might be useful for humans.

Conclusion

VR tools offer immersive, context-rich environments that enhance language learning, especially in speaking and cultural competence. The review identified six major VR categories and their pedagogical uses. Future research should explore long-term impacts and develop instructional VR frameworks for educators.

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