INNOVATION IN LANGUAGE LEARNING International Conference

Integrating Virtual Reality in Language Learning Settings

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Abstract

Technology-enhanced learning environments provide language educators access to tools that offer students engaging second and foreign language academic experiences. Through these types of activities, educators are able to teach content in meaningful ways in which students are able to further explore and immerse in the target language and culture they are learning. Virtual reality is one type of technology that is becoming more commonplace in classroom settings since the inclusion of this technology offers students enriching learning experiences. Further, by engaging in virtual reality apps, students are able to practice the target language in an immersive environment in which they receive immediate feedback on their productive language skills. They also are able to virtually visit another country in which they are able to explore the geography and culture that they are studying. In addition to providing engaging lessons, the inclusion of virtual reality activities can help students acquire higher levels of target language proficiency and become more motivated to learn other languages. This presentation will introduce the idea of virtual reality in a language learning setting as well as provide specific platforms and tools that educators can use with language learners.

Keywords: *virtual reality, language learning, education, educational technology*

Introduction

The advancement of technology affords language educators the opportunity to integrate a multitude of engaging and motivating activities into their classes. Lin and Lan (2015) postulated that in foreign and second language classrooms, the inclusion of technology-enhanced activities results in students experiencing enriched learning experiences, higher cognitive outcomes, and positive attitudes toward the language learning process. One technology that has become more commonplace in these types of educational contexts is virtual reality (VR). This technology has been defined as “an artificial environment which is experienced through sensory stimuli provided by a computer and in which one’s actions partially determine what happens in the environment” (Jerald, 2016, p. 9). VR technology provides users the opportunity to manipulate digital objects in an artificial environment similar to how they might perceive them in real-world settings (Cooper, Park, Nasr, Thong, & Johnson, 2019).

Virtual Reality

There are five main key elements of VR that includes the participants, creators, virtual world, immersion, and interactivity (Sherman & Craig, 2019). The first key element, participants, are an important element of VR since their experiences with the technology may be shaped by their capabilities, interpretations, background, and history (Sherman & Craig, 2019). Similarly, the creators are essential elements of VR. The role of the creators is to design the VR experience. The third key element, virtual world, is the space where objects within the simulation exist. When experiencing virtual reality, participants are immersed, key element four, into an alternate point of view. For the last key element, interactivity, Sherman and Craig (2019) shared that “interactive fiction can be defined in terms of the user/player’s ability to interact with a world by changing locations, picking up objects and setting them down” (p. 12).

VR can be a powerful learning tool since it provides learners lifelike learning experiences. Further, VR impacts students perceptions through the inclusion of sounds, sights, touch, taste and smell (Ornes, 2017) producing a more interactive learning environment. Particularly, VR provides immersive environments in which learners are able to interact and observe different types of elements. The inclusion of VR has been found to have positive impacts on student academic gains. For example, the use of VR assignments have been found to enhance student learning and impact their levels of attention and provide them concepts to help them better understand the phenomenon being studied (Liou, Yang, Chen, & Tarng, 2017). The inclusion of VR in foreign and second language classrooms can be particularly powerful since students may not have the opportunity to receive direct access to the target language and culture they are studying.

Language Learning

In language learning contexts, the inclusion of VR technology provides learners access to a more immersive learning landscape. Specifically, students are able to engage with VR technology that allows them to enter a virtual world and interact with others across the globe. The exploration of virtual worlds provides students exposure to authentic contexts for language acquisition and offers them opportunities to develop effective strategies for acquiring the target language (Hsiao, Lan, Kao, & Li, 2017). Further, Chen (2016) discovered that the use of VR in language learning classrooms resulted in students improved acquisition of phonological, morphological, grammar, and syntax knowledge. There are many different types of VR programs available to teach foreign and second langauges. Below is an overview of some technologies that are readily available to primary and secondary educators.

- ImmerseMe: This type of VR technology provides learners authentic and contextual language learning experiences. Content is provided at the beginner, intermediate, and advanced levels and is scaffolded through the learning modes of pronunciation, dictation, translation, and immersion. Additionally, educators are able to tailor lessons to match the sequence of their curriculum and provides students the opportunity to develop language skills that will help them to become global citizens.
- Mondly: This VR platform provides learners conversational opportunities with virtual characters in interactive scenarios. Through these interactions, learners will expeince real like interactions and receive instant feedback on their pronunciation. They will also receive suggestions on how to enhance their vocabulary ranges.
- VirtualSpeech: For students who are focused on learning business communication skills, VirtualSpeech offers immediate to advanced level learners access to VR activities that ill help prepare them to communicate in workplace settings. This VR app provides courses that provide cultural immersion, realistic environments, voice analysis, recorded speech options, business scenarios, and is accessible via smartphones. Further, learners are provided the opportunity to answer potential company quesions and learn networking skills.
- ESSA: Language learners are able to create their own world in the ESSA app when learning a new language. This VR app allows learners the opportunity to choose their own background and add animations and movements. The overall goal of this app is to help learners develop more advanced pronunciation skills. Therefore, when learners correctly pronounce a word, the system will automatically display one of the student's favorite items on the VR screen.
- PanoLingo: This VR app provides learners the opportunity to learn a foreign or second langauge via a gamification approach in which they are able to collect points and bonuses. Learners are also able to share their score and levels with their friends. Through this interactive platform, learners are directed to complete different commands and are able to receive immersive language experiences that provide access to real language situations.

Conclusion

VR provides a plethora of opportunities for learning, including opening a new world of possibilities for student immersion into a new language. Through VR, educators can introduce learners to new sights, sounds, cultures, and experiences. Various platforms such as ImmerseMe, Mondly, VirtualSpeech, ESSA, and PanoLingo are all potential tools that educators can explore for use in their classrooms. While the onset of integrating any new technology, specifically virtual realities, takes additional time, resources, and creativity, the outcomes are virtually limitless as to what students can be exposed to in their learning as well as in their language development.

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