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Using Google Expeditions in English language teaching: a virtual reality solution for developing communication skills

Nguyễn Thanh Tú; Tạ Thị Hoà**

**University of Transport Technology*

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Abstract: *Virtual Reality (VR) technology is opening new avenues in English language teaching, with the potential to enhance students' communication skills and learning experiences. Google Expeditions, a VR platform developed by Google, allows students to participate in virtual tours to various global destinations while practicing communication skills in diverse scenarios. This paper examines the integration of Google Expeditions in English language teaching, emphasizing its specific benefits, challenges, and solutions. Additionally, the paper provides examples of how Google Expeditions can be used to improve language communication skills. The use of VR not only immerses students in real-world environments but also encourages active participation, making language learning more engaging and effective. Moreover, the paper highlights strategies for overcoming technological and pedagogical barriers that schools and educators face when adopting VR. Ultimately, this research shows how Google Expeditions can significantly enhance the teaching and learning of English in both traditional and digital classrooms.*

Keywords: *Virtual Reality (VR), Google Expeditions, English Language Teaching (ELT), Communication Skills, Multicultural Interaction.*

1. Introduction

In the current digital age, the integration of technology into English language teaching has become an inevitable trend. Alongside the continuous development of educational technology, Virtual Reality (VR) has quickly become a powerful tool for teachers, especially in developing students' communication skills. VR allows learners to experience language scenarios in a highly realistic way, thereby improving their ability to use English in various contexts. One of the most prominent VR tools in this field is Google Expeditions, an application that enables learners to embark on virtual tours to famous landmarks around the world, enhancing their English communication skills in real-life situations.

Google Expeditions has become an important tool in education, not only by providing more engaging and realistic lessons but also by offering learners the opportunity to practice communication in multicultural language environments. In a globalized world, English teaching must not only focus on developing vocabulary and grammar but also on creating a realistic, multicultural communication environment where learners can confidently use the language in complex situations.

2. Content

2.1 What is Google Expeditions?

Google Expeditions is an educational application based on Virtual Reality (VR) technology developed by Google, which allows students and teachers to take virtual tours. By using VR headsets and mobile devices, learners can explore famous landmarks, museums, historical sites, and many other places without leaving the classroom.

The notable feature of Google Expeditions is its high level of interactivity, enabling learners to experience communication scenarios in realistic contexts. Rather than learning through textbooks alone, students can practice English communication in virtual environments, allowing them to develop language skills more naturally.

2.2. Benefits of Google Expeditions in English Language Teaching

** Creating a Realistic and Interactive Learning Environment*

One of the most significant benefits of using Google Expeditions in English language teaching is its ability to create an immersive, realistic learning environment. Virtual Reality (VR) allows students to explore real-world locations, interact with environments, and practice language skills in a highly engaging and interactive way. Unlike traditional classroom methods that rely on textbooks and static materials, Google Expeditions offers students the

opportunity to "visit" various destinations, such as London, New York, or Sydney, and communicate within simulated real-world scenarios.

For example, during a virtual tour to London, students can be asked to describe landmarks such as the Big Ben or Tower Bridge, interact with the virtual surroundings, and participate in conversations with digital characters. These interactive experiences provide students with authentic contexts in which they can apply their language knowledge, improving their speaking and listening skills.

Moreover, research by Merchant et al. (2014) suggests that VR-based learning environments significantly increase student engagement by promoting active participation. This immersive experience is particularly beneficial for language learners, as they can practice in an environment where mistakes are part of the learning process, reducing anxiety and promoting a more natural language acquisition process.

* Enhancing Multicultural Communication Skills

In today's globalized world, the ability to communicate across cultures is an essential skill for language learners. English is widely regarded as a global language, and students who master not only the language but also the nuances of cross-cultural communication will have a significant advantage in both professional and personal contexts. Google Expeditions enables students to virtually travel to different parts of the world, exposing them to diverse cultures and communication styles.

The use of VR to simulate these intercultural experiences allows students to practice applying their English communication skills in realistic, yet safe, scenarios. As noted by Xu & Yi (2022), this exposure to diverse cultural settings helps students develop cultural competence and adaptability, which are crucial in today's increasingly interconnected world.

By practicing communication in various cultural contexts, students become more adept at recognizing and responding to cultural differences, which is a critical skill for global communicators. VR helps bridge the gap between theoretical knowledge and practical application by providing students with virtual experiences that mirror real-life intercultural interactions.

* Boosting Communication Confidence

One of the greatest challenges language learners face is building the confidence to communicate in real-life situations, especially in a second language. Fear of making mistakes, embarrassment, and anxiety often prevent students from fully participating in conversations or expressing their thoughts in English.

In the VR environment, students can rehearse their speaking and listening skills as often as needed, receiving instant feedback from teachers or peers, while being able to correct their mistakes in a stress-free setting. This repetition and practice in a low-pressure environment build their communication confidence, helping them overcome the typical fears associated with language learning.

As highlighted by Bailenson (2018), VR technology can significantly reduce the levels of anxiety and stress experienced by students when learning a language. This decrease in anxiety allows students to focus more on improving their language skills rather than worrying about potential errors, which accelerates their learning process and enhances overall communication performance.

Furthermore, VR-based learning allows students to practice their communication skills in a variety of scenarios, from casual conversations to formal business meetings. These realistic simulations provide students with the opportunity to develop the necessary language skills for different contexts, while the virtual nature of these experiences fosters a greater sense of comfort and ease when practicing. Over time, as students become more comfortable with the VR environment, their real-life communication skills and self-assurance improve as well.

2.3. Challenges in Using Google Expeditions.

* Technological Equipment Requirements

While Google Expeditions offers many benefits for English language teaching, it also requires advanced technology, such as VR headsets, smartphones, and stable internet connections. These technological demands can present financial and logistical difficulties, especially in underserved areas. High-quality VR headsets like Oculus Rift and HTC Vive are costly, and ensuring each student has access to these devices can be challenging. Additionally, fast internet connectivity is necessary for an optimal VR experience.

To address these issues, Google introduced Google Cardboard, a low-cost VR viewer that works with smartphones, making it a more affordable option. However, even with this solution, some schools may struggle with providing the necessary devices and internet access, particularly in regions facing economic disparities.

* Teachers' Technological Skills

Another challenge is the need for teachers to have the technological skills required to use VR effectively in their teaching. Many educators may not be familiar with integrating VR into their lessons, and proper training is essential. Without adequate support, the use of VR might remain limited to basic demonstrations instead of serving as an interactive tool that enhances student learning.

Educational institutions should invest in professional development programs that help teachers gain both the technical and pedagogical skills to incorporate VR meaningfully into their lessons. Ongoing support, such as peer mentoring, can further help educators feel confident in using tools like Google Expeditions, allowing them to create more engaging, student-centered learning experiences.

2.4. Solutions for Implementing Google Expeditions.

* Using Affordable VR Devices

One of the biggest challenges in applying virtual reality technology in English teaching is the requirement for high-tech equipment. However, to reduce the financial burden, teachers can opt to use affordable VR devices such as **Google Cardboard.** This is a feasible and cost-effective alternative, allowing students to experience VR without having to invest heavily in expensive devices. Xu & Yi (2022) demonstrated that using low-cost VR devices can yield similar results to high-end devices in improving motivation and learning outcomes.

Additionally, leveraging smartphones as VR devices is also a common solution, making VR technology more accessible without the need to purchase additional complex equipment. Bailenson (2018) emphasized that the growing accessibility of VR is largely due to its integration with commonly used mobile devices.

* Training Teachers on VR Technology

Training teachers on how to use Virtual Reality technology is essential to ensure the effective application of Google Expeditions in teaching. Hu & Lu (2020) highlighted that teachers need thorough training in organizing virtual tours and managing students in virtual environments to fully harness the potential of VR in language teaching. Professional development programs for teachers should include courses on how to create and customize content, as well as on using VR technology to support the learning process.

Moreover, studies have shown that teachers' confidence and technological skills play a crucial role in enhancing teaching effectiveness. Selwyn (2016) stressed that if teachers are not adequately prepared in both technology and pedagogy, the implementation of new technology will not yield the expected results.

* Developing Creative Teaching Materials

Google Expeditions not only provides pre-designed virtual tours but also allows teachers and educational developers to create customized teaching content. Merchant et al. (2014) suggested that the ability to develop learning materials tailored to the specific needs of the classroom is crucial for personalizing the learning process. By designing virtual tours based on specific communication contexts, teachers can help students develop language skills that are relevant to real-world environments.

3. Conclusion

Google Expeditions is a powerful tool in English language teaching, offering students the opportunity to learn in a virtual reality environment, thereby developing communication skills and multicultural understanding. Although there are still challenges related to equipment and technological skills, with appropriate solutions, Google Expeditions can become an important part of language education in the future.

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