A Framework for the Implementation of Virtual Reality (VR) in the Higher and Tertiary Education Sector in Zimbabwe

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Abstract

The progression of technology has prompted tertiary educators to incorporate technology-friendly tools to engage adult learners and encourage their adoption of technology. In response to the COVID-19 pandemic, the tertiary education system in Zimbabwe has embraced various technologies, such as Learning Management Systems and mobile learning platforms, in the teaching and learning processes for tertiary students. Among these technologies, Virtual Reality (VR) has emerged as a promising tool for both learners and educators. This paper proposes a framework for implementing VR to simulate real-world scenarios in tertiary education within the Zimbabwean context. Through an exploratory study, the aim is to gain a comprehensive understanding of VR technology to support its effective integration into tertiary education in Zimbabwe. A systematic literature review was conducted to explore how VR has been utilized in education by others, thereby uncovering its potential in higher and tertiary institutions. The paper highlights how VR technologies can enhance teaching practices in tertiary institutions in Zimbabwe. Existing literature demonstrates that VR technology provides a powerful means of simulating real-world situations in tertiary education. Implementing VR in higher and tertiary education in Zimbabwe can address challenges such as limited access to physical resources and inadequate access to educational materials. VR can be applied across various disciplines, including science, engineering, medicine, and arts while accommodating diverse learning styles and preferences. Tertiary institutions in Zimbabwe are encouraged to consider incorporating this framework into their educational programs to ensure the effective utilization of VR technology. Furthermore, long-term studies are necessary to assess the impact of VR on learning outcomes, student engagement, and retention rates. Comparative studies can also be conducted to evaluate the effectiveness of VR-enhanced learning in comparison to traditional instructional methods.