KEMRI | Wellcome Trust

Use of Virtual Reality as a science communication tool

KEMRI-Wellcome Trust's experience of engaging students in Kilifi county

Introduction

Virtual reality (VR) has been extensively used in the gaming, marketing, and education sectors, especially in developed countries. However, the technology needs to be used more in sub-Saharan Africa. Touted as the next frontier in science communication, the VR experience of research laboratories offers a promising tool for engaging young adults in science.

Methodology

We piloted the use of a virtual reality video tour of laboratories as a tool to enhance science engagement among high school students in rural settings such as Kilifi.

- Fourteen students from Kilifi schools were invited to a physical tour of KWTRP research laboratories and a baseline survey to assess their understanding of the research.
- The students' feedback on the tour informed the script of a VR tour video of the research laboratories.
- VR experts helped produce a 10-minute VR tour of the various sections of the KWTRP labs.
- The video explains the research in each section, demonstrates experiments, and provides fun facts about various scientific discoveries.
- The VR video was then reviewed by various stakeholders, including students and teachers, and a survey was conducted to determine whether it enhanced students' scientific understanding.

Outcomes

1. Most of the students had yet to use virtual reality equipment, although they had watched videos on phones or television.
2. The students involved in the review reported that they enjoyed the VR video.
3. They indicated that VR video made them feel like they were physically touring the laboratories.
4. Furthermore, we observed a significant increase in the students' knowledge of KWTRP and the research topics covered in the VR video after the video compared to the baseline.

Conclusion

Virtual reality offers versatile, easily scalable tools for science engagement, especially for the younger population.

Reference: Kiyuka PK, Mwango G, Mauncho C et al. Wellcome Open Res 2024, 9:141

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