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| Title | **Exploring Augmented Reality and Virtual Reality in Education Sector: A Thematic Study Using TOE Framework** |
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| Abstract |
| **Purpose of the study:** This study investigates the integration of Augmented Reality (AR) and Virtual Reality (VR) technologies in formal educational settings, with a focus on identifying both the opportunities these tools offer for enhancing student engagement and learning outcomes, and the challenges educators face in their implementation.**Methodology:** Adopting a qualitative approach, the research employed thematic analysis using MAXQDA software to code and examine data collected from 38 scholarly articles and semi-structured interviews with four educators from a reputed higher secondary school. The study was guided by the Technology-Organization-Environment (TOE) framework to explore factors influencing AR and VR adoption.**Findings:** The analysis revealed that AR and VR technologies significantly enhance motivation, support personalized learning, and improve comprehension of complex subjects. However, widespread adoption is hindered by high costs, inadequate infrastructure, insufficient teacher training, and misalignment with existing curricula. Resistance to pedagogical change also emerged as a barrier to effective integration.**Implications**: The findings underscore the need for targeted policy interventions, including professional development initiatives, financial investment, and institutional support mechanisms. By addressing these areas, educational stakeholders can foster more inclusive, immersive, and student-centered learning environments using AR and VR technologies.**Limitations and** **Future direction:** This study is limited by its reliance on English-language literature and a small interview sample from a single institution. Future research should adopt longitudinal designs and explore diverse geographic and socio-economic contexts, particularly in underrepresented and low-resource settings, to better understand the scalability and long-term impact of AR and VR in education. |
| Sustainable Development Goal(s) (SDG) |
| Goal 4: Quality Education |