

Methodology This study used a quantitative research method to explore how Augmented Reality (AR) and Virtual Reality (VR) affect students' learning outcomes in upper grades. Data was analyzed both quantitatively (test scores, survey results) and qualitatively (interview and observation data) to draw comprehensive comparisons between the two educational environments. One school implemented AR/VR technologies in their teaching methods, while the other relied solely on traditional teaching approaches.

Source of the Study Sample The sample was purposefully selected to include one school known for its integration of AR/VR tools and another with a conventional curriculum. Students were chosen from Grade 8 and Grade 9 to ensure a focus on learners who are cognitively mature enough to engage with immersive content. The questions focused on their experiences with AR and VR in the classroom, how often they used these tools, and how it affected their understanding and motivation. The sample consisted of 80 students (40 from each school), ranging in age from 13 to 15 years old, as well as 6 teachers who contributed insights through interviews. Teacher interviews to explore perceptions of effectiveness and challenges.

Study Sample and Location The study was conducted in two upper-grade schools located in Nablus, Palestine. Teachers were selected based on their direct involvement in delivering the curriculum. Student surveys to assess engagement, motivation, and confidence levels. Classroom observations using a structured checklist.

Procedures Employed in the Study The study followed a comparative case study approach. Data collection involved: Pre- and post-tests to measure learning outcomes in subjects like science and geography. The research was conducted in several schools in Nablus. A questionnaire was designed and distributed to students and teachers in grades 7 to 10.

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