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Transforming physics learning via Research & Practice
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Exploring Potential Use Cases of Immersive Technology in Secondary School Physics

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Extended Reality (XR) technologies including virtual reality (VR) and augmented reality (AR) offer new opportunities for physics education and may be integrated into classrooms in the future. This study explores their potential through two XR tools designed for secondary students, expanding on prior AR-based physics simulations for undergraduates. Ten science teachers tested these tools and provided feedback via semi-structured interviews and focus groups. Key themes include engagement, feasibility, and curriculum alignment. While XR was seen as valuable, concerns arose about curriculum constraints, lesson time, and student monitoring. Student data collection is ongoing, with findings to be presented at the conference.

Education level

Age 12-15 (Secondary education)

Physics topic

Full curriculum

Research focus

Digital technologies (multimedia, simulations, AR, VR, remote, games)

Research method

Practitioner's Inquiry / Action Research (Qualitative research)

Organizing preference criteria

Research focus

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