

Original Research Paper

Augmented Reality Learning in Mathematics Education: Systematic Literature Review

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Abstract: Augmented reality is known as a type of technology that improves the physical world through computer-generated content that can be applied in mathematics education. The primary objective is to review and explore existing research on the characteristics of augmented reality (AR) learning through a systematic literature review (SLR). The study identified various research papers that discussed the utilization of AR in mathematics education, as well as studies that assessed the effectiveness of AR learning in this domain. The review process involved identification, screening, eligibility, inclusion, and data analysis using three search engines: Springer Link, Scopus and Science Direct. The study adhered to the PRISMA guidelines for reporting. A total of 20 articles were selected from the included studies after sorting. The findings revealed that AR learning was distributed of studies in terms of trends and countries. There were several features or characteristics in AR learning and AR learning was implemented in different areas of mathematics, such as Trigonometry, STEM, Linus Mathematical Modeling, Calculus, Geometry, Statistics and Algebra. Besides that, teacher preparation in using AR to teach in mathematics learning also will be focusing. This SLR also states the challenges or limitations in AR learning. In conclusion, Augmented reality has emerged as a promising tool for mathematics education, enhancing student engagement, comprehension, and problem-solving abilities by providing immersive, interactive, and visual learning experiences.

Keywords: Augmented Reality, Learning, Mathematics Education.

