

Title: Augmented Reality in Elementary Education: System Architecture for Implementing an Interactive and Immersive E-Learning Application

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Abstract: Early childhood language acquisition is crucial, but complex scripts such as Bengali present challenges. BIPLOB, an Android-based augmented reality (AR) application, seeks to revolutionize language learning by introducing interactive 3D models and meticulously recorded audio pronunciations. Targeting both engagement and accuracy, BIPLOB addresses issues encountered by traditional methods. Its optimized workflow offers a replicable framework for future AR-based language learning applications, especially for complex scripts. BIPLOB paves the way for immersive and effective early language acquisition through the transformative power of AR technology.

Keywords: Augmented Reality, E-learning, 3D Modeling, Interactive Application, Immersive Technology

DOI: <https://doi.org/10.3991/ijim.v18i12.45829>

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