

ABSTRACT

IMPLEMENTATION OF AUGMENTED REALITY AS A LEARNING MEDIA FOR PUPPETS WITH MULTIMEDIA DEVELOPMENT LIFE CYCLE METHOD

(Case Study: SD Negeri 2 Adisana, Kebasen, Banyumas)

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Local culture education in elementary schools still relies on conventional media like books and pictures, making it hard for slow learners to understand wayang characters in the Banyumasan Culture subject. An interactive learning medium is needed, with input in the form of visual markers and output in 3D visuals and explanatory audio.

Introducing cultural content early fosters cultural appreciation. However, limited learning media reduce student engagement. Existing methods like group discussions and collages have not helped some students distinguish wayang characters, indicating the need for a more engaging, supportive solution.

The solution is an Android-based Augmented Reality application that displays eleven wayang characters in flat 3D visuals with audio explanations. Development followed the Multimedia Development Life Cycle: conception, design, material collection, creation, testing, and distribution. The system was tested using Black Box and User Acceptance Testing.

The application successfully detects markers, and all features function without problems. Testing showed a user satisfaction score of 96.46%. Users found the app attractive, easy to use, and helpful for understanding wayang character differences..

Keywords: Augmented Reality Technology, Wayang Culture, Elementary Education, Multimedia Development Life Cycle, Application, Android Operating System