

ABSTRACT

**IMPLEMENTATION OF AUGMENTED REALITY
TECHNOLOGY AS A MEDIA FOR LEARNING TRADITIONAL
MUSIC INSTRUMENT GAMELAN ANDROID BASED**

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Indonesia has a diverse range of ethnic groups, races, customs, and cultures spread widely from Sabang to Merauke. The culture in Indonesia is crucial to preserve in order to uphold the local wisdom that has become Indonesia's identity on the global stage. The abundance of cultures in Indonesia sometimes poses challenges for certain individuals, especially elementary school students, to understand them, such as traditional arts. Indonesian traditional arts include Traditional Dance, Regional Songs, and Traditional Musical Instruments, with one example being the Gamelan. The rapid advancement of technology today has brought about what was once seemingly impossible; one of these advancements is the technology capable of presenting 3D objects from 2D images (markers), known as Augmented Reality (AR). Augmented Reality (AR), with its potential, is expected to serve as a learning medium and simplify the learning process for elementary school students, particularly those who are unfamiliar with the Gamelan. This way, Indonesia's cultural heritage can continue to be passed down through generations, as it is our responsibility as the nation's successors. In the development of such an application, the Multimedia Development Life Cycle (MDLC) method is employed to implement Augmented Reality (AR) technology. This method consists of several steps or processes, including concept, design, material collecting, assembly, testing, and distribution. Testing conducted on this application includes functional testing using the Black Box Testing method, and usability testing using the System Usability Scale (SUS) method. The results of the SUS testing yielded an average score of 85,56, which falls within the "Excellent" grade range.

Keywords : Gamelan, AR, MDLC Method, System Usability Scale, Black Box Testing