IMPLEMENTATION OF AUGMENTED REALITY FOR THE INTRODUCTION OF ANIMAL METAMORPHOSIS BASED ON ANDROID-MARKER

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ABSTRACT

Animal metamorphosis education currently relies on images exclusively printed in books, which is deemed suboptimal as it fails to provide readers with direct experiential learning. Consequently, there is a need for augmented reality (AR) technology that can deliver more realistic visual representations. Augmented reality enhances user comprehension by presenting 3D objects that are more engaging. The methodology employed in this study is Marker-Based AR. The application design process commences with data collection in the form of 3D assets developed using Unity software. The outcomes of this study include interactive features that enable users to engage with augmented reality, visualizations of metamorphosis that illustrate the transformation from eggs to adult animals, and educational content that conveys information about the various stages of metamorphosis. Furthermore, this application serves as a valuable educational tool, facilitating the learning process in schools by presenting the concept of metamorphosis more engagingly and interactively. Black box testing conducted on all application displays, from the main page to the exit, yielded positive results that aligned with the anticipated outcomes.

Keywords: Augmented Reality, Application, Metamorphosis