

ABSTRACT

DESIGN AND CONSTRUCTION OF PLANT LEARNING MEDIA BASED ON AUGMENTED REALITY USING MULTIMEDIA DEVELOPMENT LIFE CYCLE METHOD (Case Study: SD Negeri 1 Kutasari, Kec. Kutasari, Kab. Purbalingga)

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The purpose of this research is to design and develop Augmented Reality-based interactive learning media for plant structure and function material using the Android-based Multimedia Development Life Cycle method. This research was conducted at SD Negeri 1 Kutasari with research subjects of grade IV students. The application development process follows the Multimedia Development Life Cycle stages, starting from conceptualisation, design, material collection, assembly, testing, to distribution. Functionality testing using the Black Box Testing method shows that all application functions run well and as expected without any errors. Usability testing with the System Usability Scale (SUS) produces an average score of 79.83%, which is included in the 'A' category with a feasibility level of 'Good' and accepted by users. This Augmented Reality application provides three-dimensional visualisation that makes it easier for students to understand the concepts taught, and also increases student interaction and involvement in the teaching and learning process. Suggestions made for further development include the implementation of this Augmented Reality application on various other learning materials in elementary schools, the addition of new features for a more diverse learning experience, training for teachers to make optimal use of the application, as well as regular evaluation and collection of feedback for improvement and development of the application.

Keywords: *Augmented Reality, Learning Media, Multimedia Development Life Cycle, Plant Structure and Function, System Usability Scale.*