ABSTRACT

The purpose of this research is to design and develop interactive learning media for AR-based Hiragana and Katakana letters using the Android-based Multimedia Development Life Cycle method. This research was conducted at SMA Negeri 1 Ajibarang with X and XI grade students. The application development process follows the Multimedia Development Life Cycle (MDLC) stages, which consist of conceptualization, design, material collection, assembly, testing, and distribution. This application is equipped with a Voice Command feature to facilitate navigation and user interaction through voice commands. Functionality testing is carried out using the Black Box Testing method which indicates that all application functions run well and as expected without any errors. Usability testing using the System Usability Scale (SUS) method produces an average score of 82.67%, which is included in the "B" category with a feasibility level of "Good" and accepted by users. This Augmented Reality application provides visualization of Japanese letter objects in interactive 3D form, so that students easily understand the material and increase motivation and involvement in the learning process. Suggestions for further development include applying this application to other learning materials, adding new features to enhance the learning experience, training for teachers to optimize application users, and periodic evaluation based on feedback from users.

Keywords: *Augmented Reality, Hiragana and Katakana Letters, Learning Media, Multimedia Development Life Cycle, Voice Command*