ABSTRACT

**DESIGN AND CONSTRUCTION OF ALPHABET LETTER LEARNING DEVICE BASED
ON AUGMENTED REALITY
(CASE STUDY: NATIONAL KINDERGARTEN 1 PURWOKERTO EAST)**

Oleh
Ismail Nur Fuadi
20102184

Learning media is an important component during the teaching and learning process. One form of interactive learning media is educational games, especially those that use Augmented Reality (AR) technology. The use of AR educational games is considered a solution that has the potential to increase student interest and involvement in learning. This research focuses on increasing students' interest in the alphabet letters at Kindergarten (TK) Negeri 1 East Purwokerto. This research approach involves developing an AR-based application using the Multimedia Development Life Cycle (MDLC) method. The MDLC method was chosen because of its ability to combine various media ranging from images, sound, video and animation. Evaluation is carried out through Blackbox Testing to observe application performance and the System Usability Scale (SUS) method to assess the level of usability of the application. The evaluation results show that the application runs well and obtains an SUS score of 69.5. This score indicates that the application received a grade of "D" with the predicate "Good", and the level of user acceptance based on the Acceptance Range category is "High".

*Keywords: **Augmented Reality**, **MDLC**, **Unity 3D**, **Vuforia**, Blackbox Testing*