

**Pengenalan Objek pada Bahasa Inggris Dasar dengan AR Markerless di
BIEPLUS Kampung Inggris Pare**

(Markerless *Augmented Reality* for Object Introduction in Basic English at
Bieplus, Kampung Inggris Pare)

Sholihah Ayu Wulandari, S.ST., M.Tr.T. (Dosen Pembimbing)

Muhammad Yoga Pratama Chusnani

Informatics Engineering Study Program

Department of Information Technology

ABSTRACT

Basic English learning at BIEPLUS Kampung Inggris Pare is often perceived as monotonous. This research aims to develop ARDUBIE, an interactive learning application based on markerless Augmented Reality (AR) using the Multimedia Development Life Cycle (MDLC) method. The application visualizes 3D objects across people, fruits, and vehicles categories and automates sentence construction (Simple Present and Present Continuous) via Text To Speech (TTS). Black Box Testing proved the system valid, and technical testing showed optimal markerless tracking at 50–100 cm in bright lighting. Effectiveness testing on 20 students demonstrated an increase in average scores from 63.50 (pre-test) to 90.50 (post-test), with the standard deviation shrinking from 10.89 to 8.25, indicating more uniform understanding. Perception evaluation using the Likert Scale achieved 90.00% (Highly Effective), and User Acceptance Testing (UAT) yielded 82.20% (Highly Feasible). In conclusion, ARDUBIE is highly feasible and effective in enhancing basic English comprehension interactively.

Keywords: *Augmented Reality, Markerless, English, MDLC, Text To Speech.*