

## **ABSTRACT**

*This study examines the obstacles that hinder the teaching and learning process of introducing fruits in Tarbiyatul Banin Islamic Kindergarten. The purpose of this study is to build a fruit recognition learning application using Android-based Augmented Reality which has several features, one of which is visualizing fruits in 3D objects and quizzes on fruit recognition. In this study, innovative and alternative learning media were made to introduce fruits to children with Augmented Reality. Augmented Reality in principle is a technology that is able to combine two-dimensional or three-dimensional virtual objects into a real environment and then project them. This learning media uses picture cards. The markers on the picture cards will be captured by the mobile device camera, processed and 3D fruit animations will appear on the mobile phone screen. By using the concept of combining the real world, real pictures on cards and virtual, the application can stimulate imagination and curiosity in children and learning motivation is growing. 3D fruit animations were created using the 3D Blender application and the Augmented Reality process was created using Unity and the Vuforia SDK library.*

*Keyword: Augmented Reality, MDLC methodology, 3D animation*