

**Universiti Teknologi MARA**

**AR-BASED JOM BELAJAR TAJWID (JBT)**

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## **ABSTRACT**

Augmented reality (AR) is a new developing technology has been used widely nowadays, regardless in any fields, as one of the methods to visualize the object into reality view. Currently, technology in education is rapidly growth. Jom Belajar Tajwid (JBT) application is developed to know, learn and practice tajweed knowledge for children. JBT application developed for children standard 3 and 4. The application is suitable for children to learn tajweed with interactive using 3D, sound and animation. From this, kids become have fun with colorful visualize and quickly to learn tajweed. Furthermore, the application is portable for children to carry anywhere and anytime because are developed using android operating system. In addition, tajweed learning is an integral part of the 'Kelas Al-Quran' dan 'Fardu Ain' curriculum (KAFA) and is very helpful for children to learn. Augmented Reality (AR) is a new approach in education that can attract kids learning tajweed and easy to understand. From this application kids will be more interested to learn more about tajweed. This project will give benefit because it will able to kids learn and improve in tajweed. The development of the system needs Unity3D as an engine for the (AR) and the system has been succesfully developed. It is hoped to be implemented in primary school especially in KAFA class one day.

### **Keywords:**

Mobile application, Augmented Reality, Marker-based Augmented Reality, Vuforia SDK, Android, Mobile-based Application, Jom Belajar Tajwid (JBT), Kelas Al-Quran dan Fardhu Ain (KAFA), Three-dimension (3D).

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# **CHAPTER 1**

## **INTRODUCTION**

As we know, technology nowadays in education is something that is growing rapidly and widely. AR is a brand-new technology that allows users to enjoy a three-dimensional (3D) environment like they are in the real world (Mustafa, 2019). This kind of technology will attract children to learn about Tajweed through any mobile application. Moreover, AR contains elements that can help students to gain understanding, explore the learning content and the experience of learning like in real-world overlays (Mustafa, 2019).

Muslim kids need to learn Tajweed, so they can read the Al-Quran correctly in the future. It is known, that Tajweed is the rule to recite the Al-Quran with proper pronunciation. Tajweed by definition is bettering, improving, and becoming excellent while functionally, it means articulating every letter in the Al-Quran in its correct timing and from its proper point of articulation (kids, 2017). Since the Tajweed learning is considering as a compulsory lesson for Muslim kids, therefore, having an AR-based mobile application is an advantage.