3D Interactive Application as a Media For Learning Fruit and Plants for Childrens Based on Augmented Reality

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ABSTRACT

The importance of developing children's interest in agriculture as an important foundation for the future in Indonesia, the younger generation's interest in agriculture is declining. The effective proposed solution is education that introduces planting lessons from an early age, especially for elementary school students. The use of technology such as gadgets and Augmented Reality (AR) is proposed as an interactive learning medium that can increase students' interest and understanding of agriculture. This research developed an AR-based interactive application for SDN 1 Badean students to study plants and fruit using card interactions with the results of a research trial involving a User Acceptance Test trial on 6 teacher respondents at SDN 1 Badean with an average percentage of 80,63%, and shows that this application is effective in improving students' cognitive abilities and interest in learning, as evidenced by the significant increase in test scores before and after using the application with an average score of 36.9 points to 90 points. The use of the application is very dependent on room conditions with sufficient light intensity, proven in research that a light intensity of 80 - 130 lux is successful in showing maximum results in reading markers and displaying 3D objects.

Key words: augmented reality, interactive learning, fruit and plants, marker based.