ABSTRACT

Various learning materials are delivered to students, one of the materials taught at the *Al-Husna Islamic Kindergarten* is plant learning material, namely Plants Created by Allah which contains sub-materials such as Ornamental Plants, Medicinal Plants and Tuber Plants. Students are expected to master this material optimally so that they do not experience difficulties in subsequent learning. However, there are several difficulties such as the lack of visualization of some native plants which causes students to have difficulty remembering the material. Based on these problems, learning media is needed that can provide interesting visualizations and audio regarding plant introduction material. In this research, researchers used the *Waterfall* method. The reason for using the *Waterfall* method is because the technique is suitable for research that requires little human resources. Testing using the *Black Box* shows that the application has functionality that functions as expected. To see the level of usefulness of the application, testing was carried out using a quasi-experiment by comparing 2 groups, namely the control and experimental groups which were taken at random. Based on the results of testing the level of usefulness of the application using a *Quasi Experiment*, it was found that using the *Kidzplant* plant learning application was better than the control group. This is supported by the average value of ornamental plant material for the control group being 76.6 and for the experimental group 90.6. Then the average value of medicinal plant material for the control group was 68 and for the experimental group 84.6. Then the average value of tuber plant material for the control group was 73.3 and for the experimental group 86.6. Thus, the application resulting from this research can help students in studying plant material.

Keywords : *Waterfall, Black Box, Quasi Experiment, KidzPlant, Al-Husna Islamic Kindergarten*