Digital Learning Media for Processing Plastic Waste into Mobile-Based Craftmanship in Elementary School Students

Andi Syahrizal Al Azahra[1,a], Rakil Aguansyah[2,a], Nadya Salsabilah[3,a], Risda Yanti[4,a], St. Hajrah Mansyur[5,a,*]

[a]Faculty Of Computer Science, Universitas Muslim Indonesia

[*]hajrah.mansyur@umi.ac.id

Abstract. Plastic waste is the cause of a fairly serious environmental pollution problem in every country. The emergence of several environmental problems occurs due to the presence of plastic waste, for example, water blockages, damage to the soil for agriculture, and cause negative effects on ecosystems. One solution that can reduce environmental pollution is self-awareness of plastic waste treatment. Inpres Tammaung 2 Elementary School in Makassar City has not implemented learning 3R activities, namely Reduce, Reuse, and Recycle in processing plastic waste into crafts that have benefits and can be used by the community. The obstacle that occurs in the school is the lack of knowledge and experience of teachers in processing plastic waste into crafts that have aesthetic value and are beneficial to the community. The implementation method that we carry out is socialization, training, and assistance to partners in the application of science and technology in processing plastic waste into ecobrick in the form of android-based digital educational learning under the name "EcobrickSchool.app". With the application, students' ability has increased by 86% to waste processing, including that students have been successful and can learn how to make ecobrick craftmanship such as chairs, mini tables, outdoor flower shelves, and shoe racks. In addition, we have successfully implemented ecobrick video tutorials, and EcobrickSchool.app applications equipped with educational games to make it easier for students to make interesting ecobrick craftmanship as an effort to increase student awareness in waste processing.

Keyword: ecobrickschool.app, ecobrick, craftmanship, processing plastic waste