Effectiveness of Android-Based Virtual Laboratory Media in Volcanic Eruption Learning

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ABSTRACT

Abstract: Indonesia is one of the countries that has the most active volcanoes in the world. Some of them experienced the strongest eruption among other volcanic eruptions in the world. The trend of disaster victims from time to time is getting higher even though mitigation education has been carried out. This anomaly is one of the considerations for the need for education about volcanic eruption disasters in schools. In conducting disaster education, effective and efficient media were needed to be used in today's digital era. Therefore, the purpose of this study was to determine the effectiveness of Android-Based Virtual Laboratory media in Volcanic Eruption Learning in Elementary Schools.

The type of research used was quantitative research with True Experimental Design, in the form of pre-test and post-test Control Group. The data in the study were obtained through a test method in the form of a multiple choice test. Data analysis in this study used the t-test formula. The population of this study were 4th grade students of Baciro 1 Elementary School and Model elementary School. Sampling was carried out using purposive sampling technique by considering adequate school facilities or equipment in the use of the developed media. The number of students in the control group was 27 students and the experimental group was 27 students.

The result of the research was that the Android-Based Virtual Laboratory media is effective in increasing students' understanding of disaster mitigation as indicated by the significant difference in understanding scores of control class and experimental class students. Mandatory outputs in this research are scientific articles in reputable international journals and media products registered with IPR. Additional output in the form of IA documents. The level of readiness of the results of this study is stated in the form of Level 7 Technology Readiness (TKT) with media products that were feasible and effective for users to use in learning about volcanic eruption disasters in elementary schools.

Kata Kunci: *edia effectiveness , laboratory virtual, android, eruption Mountain fire*