

Android-Based Edugame Application for Earthquakes Disaster Mitigation Education

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Abstract : The earthquakes disaster is an event that can threaten at any moment and cause damage and loss of life. Game earthquake disaster mitigation is a useful educational game to enhance children insight, knowledge, and understanding in the response to the impact of the earthquake. This study aims to build an educational games application on the Android platform as a learning media for earthquake mitigation education and to determine the effect of the application toward children understanding of the earthquake disaster mitigation. The methods were research and development. The development was to develop edugame application for earthquakes mitigation education. The research involved elementary students as a research sample to test the developed application. The research results were valid android-based edugame application, and its the effect of application toward children understanding. The application contains an earthquake simulation video, an earthquake mitigation video, and a game consisting three stages, namely before the earthquake, when the earthquake occur, and after the earthquake. The results of the feasibility test application showed that this application was included in the category of 'Excellent' which the average percentage of the operation of applications by 76%, view application by 67% and contents of application by 74%. The test results of students' responses were 80% that showed that a positive their responses toward the application. The student understanding test results show that the average score of children understanding pretest was 71,33, and post-test was 97,00. T-test result showed that t value by 8,02 more than table t by 2,001. This indicated that the earthquakes disaster mitigation edugame application based on Android platform affects the children understanding about disaster earthquake mitigation.

Keywords : android, edugame, mitigation, earthquakes

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