

Abstract

Occupational Health and Safety which is shortened to OHS, is all activities to guarantee and protect the safety and health of workers through efforts to prevent occupational accidents and occupational illness (Government Regulation No. 50 of 2012). The purpose of OHS is to maintain the health and safety in the work environment. OHS also protects co-workers, workers' families, consumers, and others who may also be affected by work environment.

So far, the efforts that have been made to increase awareness of disasters in the community including posters, counseling, and evacuation simulations in the field. However, earthquake simulations in the field of OHS training have shortcomings, including participants are not being able to feel or see the situation when an earthquake occurs, therefore it is necessary to develop medias that can make users feel like they are experiencing a disaster occurs naturally, one of them is by using Virtual Reality (VR) based game media.

Based on these problems, the Critical Situation game was developed, an Android-based Virtual Reality game application that will simulate earthquake in the form of a game during OHS training to help participants easier to learn and understand what to do when an earthquake occurs.

Keywords: *OHS, earthquake, virtual reality, game, android*