

## THE UTILIZATION OF VIRTUAL REALITY ON DEVELOPMENT OF THREE DIMENSIONAL VISUALISATION ON CHEMISTRY SUBJECT

Ika Setiawati A. Bakar Graduate School, Yogyakarta State University Yogyakarta - Indonesia

K. H Sugiyarto Faculty of Mathematics and Natural Science, Yogyakarta State University Yogyakarta - Indonesia

Jaslin Ikhsan Faculty of Mathematics and Natural Science, Yogyakarta State University Yogyakarta - Indonesia

## Abstract

The utilize of instructional media will assist the effectiveness of the learning process and the delivery of learning material. The development of 3D visualization media using virtual reality is done with the development model of Borg and Gall, namely from the stage of information gathering, the planning stage, the initial development stage, the initial trial phase, and the main product revision stage. Development of instructional media is validated by media experts, material experts, subject teachers, and tested it into the 25 students of State High School 2 of Ternate City. Validation results from experts and subject teachers receive eligibility in a positive category. 3D visualization media using virtual reality chemical equilibrium material is tested on students and the results obtained by appropriate learning media are in good category. The overall results of the validation of experts, subject teachers and trials for students gained an average percentage of 76%. So that it can be concluded that the development of 3D learning media using virtual reality is declared feasible as a learning media for chemistry learning of class XI activities on chemical equilibrium material.

**Keywords:** Media Development; Virtual Reality; Chemical Equilibrium.