THE DEVELOPMENT OF AN INTERACTIVE MULTIMEDIA MODEL FOR STUDENTS'ABILITY IN TEACHING

Heni Rita Susila*

Department of Educational Technology, Postgraduate Programme
Universitas Negeri Jakarta,
Indonesia
Department of Educational Technology
Universitas Baturaja
Indonesia

Zulfiati Syahrial

Department of Educational Technology, Postgraduate Programme
Universitas Negeri Jakarta
Indonesia

Suyitno Muslim

Department of Educational Technology, Postgraduate Programme
Universitas Negeri Jakarta
Indonesia

***Corrosponding author's Email:** henirietta99@gmail.com*

Author's Biography

Heni Rita Susila is a lecture of Baturaja University, South Sumatera, Indonesia. Now she is a student of post graduate programme at Jakarta State University, Indonesia. Her current research focused on research and devopment of instructional media. Some of her recent media are interactive multimedia for English Vocational School. She published book for Learning Theory subject matter.

R E S E A R C H   H I G H L I G H T S

This study developed and examined an interactive multimedia learning model for higher students. Learning by using technologies such as interactive multimedia has become a trend nowadays. Researcher developed an Instructional multimedia, book and students and lecturer guidance and build learning community at Edmodo to apply this learning model. Based on the result, this learning model was affective in enhancing students' ability especially students of teacher training and education faculty who are prospective teacher.

RESEARCH OBJECTIVES

There were two objectives of this study, first to know the validity of the instructional model. Second is to examine the effectiveness of this model for students of teacher training and education faculty.

MATERIALS AND METHODS

This study was a research and development (R&D) of interactive multimedia learning model for students of teacher training and education faculty. The procedure of this research followed Steps of Alessi and Trollip Model (1) which consist of three phases; planning, design and development. In planning phase researcher did some steps including need assessment, identify learner character and produce style manual. Design phases consist of some steps including create flowchart and storyboard and prepare the scripts. in development phase there are several steps including alpha testing and beta testing. In alpha testing, this learning model was validated by six experts. Beta testing conducted by examine the model to 3 students in one to one evaluation, 6 students in small group evaluation. Field trial conducted with 23 participants to examine the effectiveness of the products. This study used pre-test and post-test in one group design. The attitude survey was distributed to know the students' engagement in using this learning model.

RESULTS

Experts judgement were evaluated using qualitative way, the main result stated that this model was valid and could be applied in instructional process. Small group evaluation showed an average scores 3,93, it means they were enjoying learn using this model. From the paired t-test, we got the value of $t = 10.186$ which is bigger than the value of t table $(\alpha, n-1) = 2,07$ based on the significance degree of 5% which means that the average scores of the post-tests is higher than the average scores of the pre-test. Based on the questionnaire result students states that interactive multimedia learning gave high engagement. It proved by the increasing of students' achievement in learning strategy course.

FINDINGS

This learning model applied both in classroom and online, but interaction in classroom fairly often occurred than online. The online interaction conducted through Edmodo and whatsapp application. Lecturer asked and give the material through online for students' preparation.

In the classroom, students discuss and explain the material by doing presentation and simulation. One of the advantages by using this model is helping in shorten lecturer time in delivering material in the classroom. In classroom students used most of their meeting class time to do the simulation and discussion. Multimedia is also helpful to a lecturer as it provides many benefits such as satisfying educational objectives, increasing students understanding,

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demonstrating events, showing places, conducting experiments in most possible ways (2). The questionnaire results stated that average students felt enjoy and motivate learned using this model. The combination of audio, video, animation and text make them easier in understanding the material. Interactivity influenced students to learn better because they can control the learning media (3). Meanwhile, by using interactive multimedia learning materials, students can be motivated to learn, because they can listen to audio, watch the video or view the text, animation and graphics simultaneously (4). The increasing of post-test score in field trial showed the effectiveness of this model. Some studies showed students got higher achievement compares with non multimedia learning (5)(6).

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