

# **THE DEVELOPMENT OF LEARNING MEDIA BASIC LOGIC GATE USING AN ADOBE FLASH CS3 PROFESIONAL FOR VOCATIONAL HIGH SCHOOL STUDENTS**

By Purna Setyawan  
NIM. 04502241035

## **Abstract**

This research aims to design, build and test the feasibility of basic logic gates learning media for vocational students. The media can be used as a mean to support the teaching and learning process. This learning media is designed and created by combining various multimedia objects such as text, image, animation and interactive button. The subject materials which are used in this media are the theories of the basic logic gates components such as symbol, equation and the truth table.

The method of this research is Research and Development (discovery, development, and product examine) which is longitudinal (some phases). The phases which are done are: 1) necessity analyzing, 2) developing learning design, 3) implementing, 4) examining the development product. The techniques of the collecting data used are documentation and close questionnaire. In the validation phase involves instructional media specialist and expert appraisal of material as the assessor and examiner of the media properness which is developed, while the students are used as test usage. The data obtained is analyzed by quantitative descriptive analysis techniques.

The result of this research is in the form of interactive learning media basic logic gates. According to the material expert, when observed from material aspect acquired 89.28 % (*categorized as very feasible*), the percentage observed from material deeper aspect acquired 80 % (*categorized as very feasible*), observed from evaluation aspect get 87.50 % (*categorized as very feasible*) so the total of feasibility test results is 86.90% (*categorized as very feasible*), while according to the expert of instructional media, when observed from design aspect acquired 75 % (*categorized as feasible*), the percentage observed from information clarity get 78.12 % (*categorized as very feasible*) so the total of feasibility test results is 76.10% (*categorized as very feasible*) and the total percentage of students test is 76.01 % (*categorized as very feasible*). The validity based to the overall respondents is 80.11% with a very appropriate category. Based on the results above, the learning media in this research is very feasible to use as a means to support the process of learning and teaching at the vocational school.

*Keywords: Development, Interactive Learning Media, Basic Logic Gates*