Development of Inquiry-Based Science Virtual Laboratory for Improving Student’s Thinking Skill of Junior High School

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ABSTRACT

This study was aimed to produce inquiry-based science virtual labs that are eligible for use in teaching science. In addition, this study also aimed to determine the effectiveness of a virtual laboratory to develop students' thinking skills. This research is the development of research by modifying step 4-D (model four-D) and the Borg and Gall. Research subjects junior high school students of class VII. This study begins with step Define, to get information problems in science learning, especially when laboratory activities, further Design resource planning media fulfillment based on the needs assessment, preparation of teaching media and Develop with validation performed by expert lecturers and teachers, and Dissemination. At the end of the study are expected to be produced in the form of a virtual laboratory products eligible and thinking skills junior high school students to study science improved by using virtual laboratory suppvort. The instrument used in this study questionnaire sheet product validation, student questionnaire responses sheet, observation ability to think, and a test sheet. For the validation of data and student response data were analyzed descriptively. test data were analyzed by paired t test. The results showed that (1) the product IPA developed a virtual laboratory rated as excellent by experts and teachers, with some improvements to every aspect assessed; (2) most of students responded very well to the virtual laboratory products; (3) virtual laboratory products can enhance students' thinking skills demonstrated by a score gain of 0.56 (medium category) and paired t-test data results thinking skills obtained significance value of 0.000. This means that there is a significant difference between students' thinking skills before and after using virtual laboratory.

Kata Kunci: *virtual laboratory, science, thinking skill*