



## Analysis of Students Critical Thinking using the Junior High School Student Online Module

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### ABSTRACT

This study aims to describe the results of the feasibility of the learning tools applied in class VII SMP based on the validator's assessment, test results and student responses. In research with a quantitative approach and the learning device development model used Research and Development (R and D). The data collection method used critical thinking skills tests in the form of pretest and posttest, observation sheets, and student response questionnaires to the development of online modules. In line with the objectives of the research, the results showed that the validation results were valid and reliable so that the learning devices were declared suitable for use. The results of the observation of students' critical thinking skills showed very good, and the results of the N-gain showed that the medium category was 15 students, the high category was 5 students, and the student response questionnaire to the online module was 92.50% with a very good category. SPPS test shows that online module gives influence for critical thinking students. All of teachers can use the online module for many learning model to increase critical thinking students.

## INTRODUCTION

Critical thinking has important role in study in order to students have open minded. The development of the world of education requires teachers to know how to manage learning to be more interesting and the skills needed by students can be facilitated in the 21st century and the openness of the flow of globalization which allows information and technology to develop very rapidly which will have an impact on changes in all aspects of life. Critical thinking is one side of being a critical person where the mind must be open, clear, and based on facts. Critical thinking aims to reflect one's ability to analyze, synthesize, and evaluate information (Roksa et al., 2017). Critical thinking means reflective thinking which focuses on deciding that believed act or something done (Fuad et al., 2017). The students' skill to think critically is still lacking, because of the teacher's limited skill to develop, as is well known in physics is known as a lesson full of formulas that are considered difficult (Alvionita et al., 2020).

Module is solution to empower students critical thinking because it completed by activity, training, and self-assessment (Nawawi, 2017). The module is learning materials which arranged systematically with easy to understand language by students (Handayani, 2018). Electronic Module Web-based can be interpreted as module teaching materials that are presented in electronic form and in- publish via a web using Content Management System (CMS) tools to presenting material and the Quiz Management

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