

# **WORKSHOP ON DEVELOPMENT OF MULTIMEDIA LEARNING MODULE (MLM) BASED ON INQUIRY BY USING PHET SIMULATION TO IMPROVE CRITICAL THINKING ABILITY FOR JUNIOR HIGH SCHOOL SCIENCE TEACHERS**

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## **ABSTRACT**

This community service activity aims to: (1) disseminate the results of research on the development of an inquiry-based Science Multimedia Learning Module (MLM) with PhET Simulation to improve critical thinking skills; (2) improve the teacher's ability in using PhET Simulation to improve students' critical thinking skills.

The service was carried out in the form of a workshop through the following stages: (1) brainstorming to explore the teacher's initial knowledge and experience in using PhET Simulation; (2) lectures on the Multimedia Learning Module, introduction and demonstration of PhET, and analysis of the suitability of PhET simulation with Basic Competencies; (3) discussion and group work to identify PhET simulations that are in accordance with Basic Competencies and potentially to improve students' critical thinking skills; (4) activity evaluation.

The results show that, in general, the participants have been able to identify PhET simulations that are in accordance with the Basic Competencies and potentially to improve students' critical thinking skills. This is reflected in the product of the workshop participants' worksheets which include the types of PhET simulations used, suggestions for use at Basic Competencies and class levels, as well as critical thinking skills that can be developed.

*Kata Kunci: Multimedia Learning Module, PhET simulation, Critical thinking skills*