

DEVELOPING OF PHYSICS TEACHING MATERIALS BASED ON GASING TO INCREASE THE MATERIAL MASTERY AND LEARNING INTEREST STUDENT IN HIGH SCHOOL

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ABSTRACT

Abstract

The objectives of this research are: (1) to produce teaching materials of Physics based on *gasing* for Physics Learning and to increase the mastery of physics materials and interest in learning of high school students, (2) to know the improvement of material mastery, (3) to know the increase of physics learning interest of high school students.

This research uses research and development method with 4D model. The steps in this research include four stages, namely: definition, design, development and dissemination.. Product trials conducted on students of Class XI IPA 1 and Class XI IPA2 SMA Negeri I Gamping. The defining stage involves identifying potentials and problems and gathering information. The design stage makes the product design based on the definition. The development stage includes design validation, design improvements, limited testing, product revisions and extensive trials. Deployment phase includes the dissemination of the product. The research instrument includes teaching materials, questionnaires interest in learning, learners' questionnaire responses, and about the pre-test and post-test. The research instrument is validated by two validators. Data analysis technique of validation of research instrument with ideal standard scale (SBI) and scale analysis. The standard gain is used to analyze the research data on the improvement of mastery of the subject matter and interest in learning.

Result of research, that has been produced Material of physics based on *gasing* in the form of Module and LKPD which is suitable for learning and increase the mastery of physics material and interest of learners class XI IPA in SMA Negeri I Gamping. The mastery of physics material increases in the medium category, after learning with the teaching materials based on *gasing*. Students' learning interest increases in the medium category after learning with physics-based materials of *gasing*.

Kata Kunci: Teaching materials based on gasing, Mastery of material, interest in learning