

## **ABSTRACT**

### **DEVELOPING THE KINEMATIC MOTION WITH VECTOR ANALYSIS MODULE IN 2<sup>th</sup> GRADE OF SENIOR HIGH SCHOOL**

**By**

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This study is aimed at: (1) describing the potential and the initial conditions of physics in kinematic motion with vector analysis, (2) describing the steps in the development of modules, (3) analyzing the effectiveness, (4) analyzing the efficiency, and (5) analyzing the attractiveness of the module.

The methods used were research and development. The research steps used were analysing the requirement, developing module and evaluating. This study was conducted in SMA of Sub Rayon Way Jepara. The data was collected by using questionnaires, observation sheets, and test which analyzed by using t-test.

The results of this study concluded that: (1) in the subject of kinematic motion with vector analysis, there has been no subject yet that optimize the learning process. The present teaching materials did not provide the prerequisite material: integral and deferential. (2) The steps in developing the module were: a) analyzing the students, b) determining the standards and the purposes, c) choosing the strategy, technology, media and material, d) validating the experts, e) testing and revision. (3) The module was more effective for about 75% based on the increase of score in the test, but based on KKM (Standard Minimum Score), it was only effective for SMAIT Baitul Muslim. (4) The module efficient with an average time savings of 25%, the allocation of learning using modules was more little bit than the plan, but the module was not efficient in terms of the finance. (5) Module attracted for about 80% in terms of the ease of the use, clarity of the materials, the ease of material to be understood, and the convenience in self-learning and the growth of the spirit in learning.

**Keywords:** module, kinematic motion , vector analysis.