

## ABSTRACT

ARIEF MAULANA, Development of Mathematics Based Learning of Student Worksheet (LKS) with Constructivism Approach of Vector of Class XI SMK Satya Bhakti 1. Thesis. Jakarta: Mathematics Education Program, Mathematics Department, Faculty of Mathematics and Natural Sciences, Jakarta State University, 2017.

This study aims to develop student worksheets (LKS) for students of class XI SMK. Based on the analysis of material needs developed is a vector with the approach of Constructivism. Stages of constructivism in learning are Introduction, Exploration, Restructuring, Application, and Evaluation.

The method used in this research is research and development (research and development). The procedure consists of needs analysis, model development planning, expert validation, teacher testing and one-on-one evaluation, small group trials, and large group trials.

Based on the validation results of material and language experts obtained that the material contained in the developed student worksheet is in accordance with the educational unit level curriculum. The language used in the student worksheets is in accordance with the enhanced spelling and in accordance with the level of student development. Based on the results of media expert validation it is found that the LKS developed the cover design shows good contrast, the size and color of the letters that are loaded is appropriate, and the placement of layout elements (title, subtitle, and illustration) is consistent and does not interfere with text and page numbers. Based on small group experiment, the average percentage of questionnaire result was 89.06% and included in very strong category. Based on large group trials obtained the average questionnaire results of 92.25% and included in the category is very strong. Thus, the developed LKS meets the feasibility of being used in vector material learning.

Keywords: student worksheet, research and development, constructivism approach, vector