

Developing Learning Module on Oxy-Acetylene Welding at SMK Negeri 2 Wonosari

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Abstract

The purpose of this research are 1) formulating the step to develop learning module on oxy-acetylene welding to support the learning process at SMK Negeri 2 Wonosari, 2) knowing the feasibility of this module, and 3) knowing the result from the test after using the oxy-acetylene welding module.

This research is using R and D approach (Research and Development). The research was doing at May 2011 to October 2011 at SMK N 2 Wonosari. The research object contained the developing oxy-acetylene welding module. It consisted of the preparing material lesson for welding, the identifying equipments lesson, the assembling equipment lesson, the identifying preventive distortion method, and welding practice with oxy-acetylene on low carbon steel materials. The research steps contained: (1) the antecedent study phase (book study, field study and the compiled module draft), (2) the developing phase (validation on the subject, media, teacher, and pre reading test for the student), (3) the performance test phase. The data was collected by questionnaire method while data analysis used quantitative descriptive analysis technique by percentage to translate in percentage of feasibility scale which has been determined.

The result of the research consist of: 1) the step of developing module contained: (a) the antecedent study phase (book study, field study and the compiled module draft), (b) the developing phase (validation on the subject, media, teacher, and pre reading test for the student), (c) the performance test phase; 2) the feasibility module obtained from: syllabus expert validation with 90% of eligibility, validation from the learning media expert with 86,25% of eligibility, and validation by teacher with 89,38% of eligibility, and from feasibility reading test with 80,27%. It's proving that the oxy-acetylene module is very fit to use for learning in SMK Negeri 2 Wonosari; 3) the result of learning evaluation reach to 7,7 from class average value; student with completed learning reach to 24 student (75%); the understanding scale equal to 77%, and also 8 student (25%) not yet completed the learning so they need to follow remedial evaluation.

Keyword: developing, module, welding, oxygen, acetylene