## THE DEVELOPMENT OF CTL-BASED LEARNING MODEL TO IMPROVE CAD COMPETENCE OF VOCATIONAL STUDENTS IN DIY

by Yatin Ngadiyono, M.Pd

**ABSTRACT** 

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This research aims to define a construct of CTL-based learning model on CAD subject. The learning model is intended for vocational high school students to improve their CAD competence. The research method being used was Research and Development methods implementing Dick and Carrie's approach. The research was carried out in 2 areas in Yogyakarta, namely Bantul and Wates Kulonprogo district. The subject was SMK students underwent CAD subject learning.

The result of large scale test shows that the CAD learning model is appropriate to be implemented in the CAD teaching and learning. The modul gained a very strong positive response from the students in the functional and benefit aspects, with a total average score of 24,42. The modul also gained a strong positive response from the attractiveness aspect with an average score of 37,73. Students also found that the model is very appropriate in the learning material aspect with and average score of 30,70. The CAD learning methods can be implemented by following these steps: 1) Defining Basic Competencies, 2) Defining subject material, 3) Defining the objects, 4) Motivating the students by assosiating the learning material with environmental context, 5) determining heterogeneous group and administering task, 6) Group discussion, 7) Individual task, 8) Assessment, 9) Reflection of the result and feedbacks. The CAD learning implementing the CTL-based CAD modul evidently improves the students' achievement by 19%, or to be spesific, from 71,18 to 84,64.

Kata Kunci: CTL CAD