

ABSTRACT

This research about the implementation of analog or digital portable training modul as a learning media in microcontroller system , purpose of this research is for developing a learning media which can increase the result of study of the student in microcontroller system competence standart. Purpose of this research also to know the effectivity of digital portable training modul based on the result of study of the student in microcontroller system competence standart. Research model that was used is research and development approach with descriptive and evaluative approach with the stage until limited test. The assessment of learning process can be seen from increasing cognitive, affective, and psychomotoric aspect. The sample that was used in this research consist of 30 students of Teknik Mekatronika in SMKN 2 Cimahi. The collecting data was done by giving the questionnaire, observation, pretest and post test. The result of this research showed that the implementation of analog/digital portable module based on teachers and students opinion, it obtained a response that shows the result with classification in a good stage, it means that this training module is effective to used as learning media of microcontroller system. Based on testing the hypothesis with using left-side proportion test in cognitive, affective, and psychomotoric domain, it will obtain the $Z_{\text{calculation}}$ score is bigger than Z_{table} . This result shows that the implementation of analog/digital portable training module as learning media in microcontroller system is effective toward the increasing of learning result of students cognitively, affectively, and psychomotorically.

Key words : *Learning media, analog or digital portable training modul, Research and Development, Microcontroller system.*