

Digital Voltmeter Trainer As A Learning Media Of Digital Technique Sequential On The Competency Skills Of Audio Video Technique In SMK Negeri 2 Yogyakarta

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ABSTRACT

The purpose of this study is to know about the design, performance, and the eligibility level of the Digital Voltmeter Trainer as a learning media of digital technique sequential on the competency skills of Audio Video technique in SMK Negeri 2 Yogyakarta.

Research and Development method is the method that be used in this research. The object of this study is the digital voltmeter trainer. The cycles of the research are : 1) analysis, 2) design, 3) implementation, 4) test, 5) validation, 6) and the using test. In order to collect the data, the research used some methods, they are: 1) test and performance observation, 2) questionnaire, in order to know the eligibility level of the media, based on the content validity and construct validation and also the using test by students of SMK N 2 Yogyakarta. Descriptive analysis is used as the technique to analyse the data.

The results of the research showed that digital voltmeter trainer as a learning media of digital technique sequential including some cycles: 1) pulse generator, 2) control the input pulse, 3) decimal and hexa counter, 4) decoder BCD, 5) display, 6) overflow, 7) DAC, 8) comparator, 9) selector, and 10) power supply. Test results of the test and performance observations of each circuit board trainer showed that it can work properly and when used as a gauge voltmeter to measure voltage up to 220V AC or DC. The eligibility level media trainer can be seen from the validation test of contents the result up to 88.41%, the validation test of construct up to 80.11% and the using test by the student up to 82.14%, then the digital voltmeter trainer be used as a learning media in SMK N 2 Yogyakarta.

Keywords: learning media, trainer, digital voltmeter