

MENYIASATI FASILITAS LABORATORIUM CNC BAGI SMK YANG BERKEKURANGAN FINANSIAL

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ABSTRACT

Vocational secondary education (SMK) focused on how to yield a graduate with a high skill level so ready to use as an operator in the world of work (Samadhi, 2014). Therefore kebaradaan laboratory is one of facilities must-have. However, reality shows that there are many SMKs that do not have a CNC laboratory. Lack of adequate funds become classics reasons. This is understandable, because to have a CNC machine worth taking that simple though they should provide funds at least Rp. 350 million, CNC simulator is a highly qualified computer simulation program of CNC machining. From the financial side, this simulator is much very cheap price but in terms of its ability to go far beyond the minimum requirements most of CNC laboratories in SMK existing present. The simulator looks so lively and interesting so that users feel really were in front of actual CNC machine. Because of the strengths of that, the hypothesis could be built is CNC simulators can be used as a medium of learning in the laboratory for the SMK that because of limited funds they dont have a CNC laboratory yet. The research was designed to prove the hypothesis. By using a Likert scale analysis of qualitative data and the data pairs μ test for quantitative data, ultimately it can be seen that the respondents (students and teachers) feel very satisfied (93.33% Likert scale) when using the CNC simulator and because it was an average capability in the field of CNC programming be increased from 73.6 to 95.7 for students and from 98.9 to 87.3 for teachers. From financial aspects the CNC simulator is able to lower the cost of laboratory operations from Rp. 755,000 per month to stay Rp. 175,000 per month. And finally it can be concluded that the simulator can be used to circumvent CNC laboratory in SMK that don't have much money.

Kata kunci: laboratorium CNC, SMK berkekurangan finansial, simulator CNC

PENDAHULUAN.

Berlakunya ASEAN Economic Community di tahun 2015 sudah tinggal menghitung hari. Persiapan dini sudah banyak dilakukan berbagai pihak. Kalangan industri misalnya, sejak beberapa tahun yang lalu sudah mulai banyak industri manufaktur yang telah mengkonversi mesin-mesin konvensionalnya dengan mesin-mesin berbasis computer. Mesin-mesin CNC modern sudah mulai banyak dijumpai di industri-industri manufaktur. Perubahan ini semata untuk mengimbangi tingkat persaingan yang ketat di sektor ekonomi dalam jangka waktu yang lama ke depan. Dampak yang luar biasa dari perubahan ini berimbas pada sektor pendidikan. Bagi Sekolah Menengah Kejuruan (SMK) mesin perkakas misalnya, sebagai instansi yang bertugas melahirkan lulusan yang siap pakai dengan tingkat ketrampilan yang tinggi di bidang permesinan CNC kebijakan dunia