

ABSTRAK

ARIS BUDIYONO: *Pengembangan Model Uji Kompetensi dan Sertifikasi Keahlian Siswa SMK Kompetensi Keahlian Teknik Pemesinan*. **Disertasi. Yogyakarta: Program Pascasarjana Universitas Negeri Yogyakarta, 2015**

Tujuan Penelitian ini adalah untuk: (1) mengembangkan model uji kompetensi dan sertifikasi keahlian siswa SMK kompetensi keahlian Teknik Pemesinan, (2) menghasilkan model uji kompetensi dan sertifikasi keahlian siswa SMK kompetensi keahlian Teknik Pemesinan yang efektif, efisien dan praktis; (3) mengetahui kelayakan model uji kompetensi dan sertifikasi keahlian siswa SMK kompetensi keahlian Teknik Pemesinan hasil pengembangan.

Untuk mencapai tujuan tersebut maka dilaksanakan penelitian dan pengembangan dengan 10 langkah yaitu: (1) studi pendahuluan dan pengumpulan data, (2) perencanaan, (3) mengembangkan produk awal, (4) uji coba lapangan, (5) revisi untuk menyusun produk utama, (6) uji coba lapangan utama, (7) revisi untuk menyusun produk operasional, (8) uji coba produk operasional, (9) revisi produk final dan (10) diseminasi dan implementasi produk hasil pengembangan. Produk penelitian di validasi oleh pakar, guru SMK dan dosen Pendidikan Teknik Mesin melalui *Focus Group Discussion* (FGD) dan uji lapangan yang dilakukan di SMK Warga Surakarta dan SMK Bhineka Karya Simo Boyolali Jawa Tengah.

Hasil penelitian ini sebagai berikut. (1) Dihasilkan model Uji Kompetensi dan Sertifikasi Keahlian Siswa SMK Kompetensi Keahlian Teknik Pemesinan berbasis Unit Produksi Sekolah yang disingkat UKSK_UPS; terdiri dari komponen pengelolaan yaitu: perencanaan, pengorganisasian, pelaksanaan, evaluasi dan pelaporan; digunakan untuk mengelola UKSK siswa SMK khususnya kompetensi keahlian Teknik Pemesinan; serta model dilengkapi dengan panduan pelaksanaan dan modul penguatan materi dan latihan; (2) Model UKSK_UPS memenuhi kriteria model yang baik, hal ini ditunjukkan pada hasil skor rata-rata penilaian sebesar 3,557 (skor maksimum 4) termasuk kriteria baik yaitu antara 3,350 dan 3,764. (3). Rata-rata skor penilaian keterlaksanaan model saat uji coba mencapai nilai 3,670 pada uji coba perorangan dan 3,730 pada uji coba kelompok kecil, dengan menggunakan kriteria bahwa model terlaksana antara 3,422 dan 3,907 untuk uji coba perorangan dan antara 3,499 dan 3,954 untuk uji kelompok kecil maka model UKSK_UPS masuk kategori terlaksana. (4). Model UKSK_UPS memenuhi kriteria model yang efektif, hal ini ditunjukkan pada hasil skor rata-rata penilaian sebesar 3,730 termasuk kriteria efektif yaitu antara 3,506 dan 3,955. (5) Model UKSK_UPS memenuhi kriteria model yang efisien, hal ini ditunjukkan pada hasil skor rata-rata penilaian sebesar 3,780 termasuk kriteria efisien yaitu antara 3,569 dan 3,992. (6) Model UKSK_UPS memenuhi kriteria model yang praktis, hal ini ditunjukkan pada hasil skor rata-rata penilaian sebesar 3,700 termasuk kriteria praktis yaitu antara 3,468 dan 3,932. Dengan demikian disimpulkan bahwa model UKSK_UPS adalah model yang efektif, efisien dan praktis.

Kata kunci: Model UKSK siswa SMK, Teknik Pemesinan, UPS

ABSTRACT

ARIS BUDIYONO: *Developing a Model of Competency and Expertise Certification Tests for Vocational High School Students of the Mechanical Engineering Expertise Competency.* **Dissertation. Yogyakarta: Graduate School, Yogyakarta State University, 2015**

This study aims to: (1) develop a model of competency and expertise certification tests for vocational high school (VHS) students of the Mechanical Engineering expertise competency, (2) produce an effective, efficient, and practical model of competency and expertise certification tests for VHS students of the Mechanical Engineering expertise competency, and (3) investigate the appropriateness of the developed model of competency and expertise certification tests for VHS students of the Mechanical Engineering expertise competency.

To attain the objectives, the researcher conducted a research and development study consisting of 10 steps, namely: (1) a preliminary study and data collection, (2) planning, (3) the preliminary product development, (4) a field tryout, (5) a revision to design the main product, (6) the main field tryout, (7) a revision to design the operational product, (8) the operational product tryout, (9) the final product revision, and (10) dissemination and implementation of the developed product. The research product was validated by experts, VHS teachers, and lecturers at Mechanical Engineering Education through Focus Group Discussion (FGD), and the field tryout conducted at SMK Warga Surakarta and SMK Bhineka Karya Simo, Boyolali, Central Java.

The results of the study are as follows. (1) The study produces a model of Competency and Expertise Certification Tests Based on the School Production Unit (CECT_SPU) for VHS Students of the Mechanical Engineering Expertise Competency. The model consisting of management components, namely planning, organizing, actuating, evaluating, and reporting, is used to manage the CECT for VHS students of the Mechanical Engineering expertise competency in particular, and is supplemented by an implementation guide and a module for materials enrichment and exercise. (2) The CECT_SPU model satisfies the criteria for a good model; this is indicated by a mean score of 3.557 (a maximum score of 4), which is good in a range of 3.350 to 3.764. (3) The mean score of the model implementation in the tryouts were 3.670 in the individual tryout and 3.730 in the small-group tryout, using the criteria that the model can be implemented in a range of 3.422 to 3.907 in the individual tryout and in a range of 3.499 to 3.954 for the small-group tryout. Therefore, the CECT_SPU model can be implemented. (4) The CECT_SPU model satisfies the criteria for an effective model; this is indicated by a mean score of 3.730, which is effective in a range of 3.506 to 3.955. (5) The CECT_SPU model satisfies the criteria for an efficient model; this is indicated by a mean score of 3.780, which is efficient in a range of 3.569 to 3.992. (6) The CECT_SPU model satisfies the criteria for a practical model; this is indicated by a mean score of 3.700, which is practical in a range of 3.468 to 3.932. Therefore, it can be concluded that the CECT_SPU model is an efficient, effective, and practical model.

Keywords: *CECT model, VHS students, Mechanical Engineering, SPU*

