

**PENGEMBANGAN TES MATA PELAJARAN
KONTROL REFRIGERASI DAN TATA UDARA
KOMPETENSI TROUBLESHOOTING DI SMK TPTU**

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ABSTRAK

Penelitian ini ditunjukkan untuk mengembangkan tes pada mata pelajaran kontrol refrigerasi kompetensi *troubleshooting* di SMK TPTU, agar teknik tes dalam menilai dan mengukur pengetahuan siswa baik penilaian kognitif dan psikomotor mempunyai konstruksi tes yang valid atau ajeg, dengan didasarkan pada temuan di lapangan selama ini bahwa tes yang merupakan teknik dalam menilai aspek kognitif dan psikomotor siswa masih belum layak dikarenakan hanya berdasarkan pada apa yang mereka tulis di dalam laporan selama atau setelah kegiatan belajar mengajar dan praktikum berlangsung untuk menilai pengetahuan siswa. Metode penelitian ini menggunakan metode penelitian pengembangan *Research and Development (R&D)*. Tahapan tersebut diantara lain: 1) Pendefinisian; 2) Perancangan; 3) Pengembangan. Temuan atas penelitian ini berupa alat tes kognitif dan psikomotor yang tervalidasi isi, konstruk dan reliabel. Penelitian ini menghasilkan kisi-kisi instrumen soal pilihan ganda dan instrumen tes kinerja berdasarkan kompetensi dasar sebanyak 30 soal pilihan ganda, tes kinerja sebanyak 48 item, dan dihasilkan tes kognitif dan tes psikomotor yang tervalidasi sebanyak 28 butir soal pilihan ganda, 43 butir item tes kinerja untuk layak dijadikan alat tes.

Kata kunci: kontrol refrigerasi, *research and development*, tes, *troubleshooting*

DEVELOPMENT OF TEST SUBJECTS OF REFRIGERATION AND AIR CONDITIONING CONTROL ON TROUBLESHOOTING COMPETENCY AT SMK TPTU

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ABSTRACT

This research was intended for developing tests in the subjects of refrigeration control competence troubleshooting at SMK TPTU, in order to test techniques in assessment and measuring student knowledge of both cognitive and psychomotor assessment has a test construction steady, with valid or based on findings in the field during the time that the test is a technique in assessing cognitive and psychomotor aspects of students is still not feasible because just based on what they write in the report during or after teaching and learning activities and practical work in progress to assess student knowledge. This research method using research methods Development Research and Development (R&D). Among the other stages: 1) Definition; 2) Design; 3) development. The findings of this research over the form of cognitive and psychomotor test tool that validated content, invalid constructs and reliability. This research resulted in the lattice and the instruments of the multiple choice question the instrument performance tests based on competency basis 30 multiple choice question, performance tests as many as 48 items, and produced cognitive and psychomotor tests tests are validated as much as 28 multiple choice question rounds, 43 grains of performance test items for a decent foundation of the assay.

Keywords: refrigeration control, research and development, test, troubleshooting