

ABSTRAK

Penelitian ini bertujuan untuk mengembangkan perangkat asesmen kompetensi praktikum kimia analitik dasar berbasis *task with student direction (TWSD)* yang dapat digunakan untuk mengukur kompetensi kognitif praktikum dan kompetensi kinerja praktikum. Penelitian dilakukan menggunakan desain *research and development* digunakan dengan empat tahapan yaitu : (1) studi pendahuluan, (2) perencanaan dan pengembangan, (3) validasi, (4) implementasi perangkat asesmen. Penelitian dilaksanakan di suatu LPTK di Medan dengan melibatkan 70 calon guru dalam uji coba instrumen pilihan ganda dan 34 calon guru dalam uji coba rubrik dan 36 calon guru pada implementasi. Instrumen asesmen yang dikembangkan berupa asesmen pilihan ganda (*multiple choice*) untuk mengukur kompetensi aspek kognitif tentang praktikum analisis gravimetri dan analisis volumetri. Selain itu dikembangkan rubrik kinerja praktikum, untuk mengukur kompetensi mahasiswa dalam merencanakan praktikum, melakukan praktikum, dan melaporkan praktikum. Pengembangan perangkat asesmen melalui analisis kebutuhan, perumusan draf, serta revisi berdasarkan saran dan pertimbangan dari pakar dan mahasiswa. Uji validasi muka dan validasi isi, tingkat kesukaran, daya beda, distraktor, dan reliabilitas diperoleh instrumen asesmen pilihan ganda yang memenuhi syarat yang dapat digunakan untuk mengukur kompetensi aspek kognitif praktikum dan rubrik untuk mengukur kompetensi kinerja praktikum. Hasil implementasi perangkat asesmen menunjukkan bahwa asesmen pilihan ganda dapat mengukur kompetensi aspek kognitif praktikum, dan menunjukkan peningkatan kompetensi kognitif melalui kegiatan praktikum berbasis TWSD. Rubrik dapat mengukur kompetensi mahasiswa dalam merencanakan praktikum, melakukan praktikum, melaporkan praktikum, dan menunjukkan peningkatan kompetensi tersebut melalui kegiatan praktikum berbasis TWSD. Kompetensi aspek kognitif praktikum mempengaruhi kompetensi melakukan praktikum sebesar 56,8 %.

ABSTRACT

This study aimed to develop a set of assessment of competency on basic analytical chemistry practicum based on task with student direction (TWSD), this can be used to measure cognitive competencies and practicum performance competencies. The study was conducted using a research and development design consist of four stages, namely: (1) preliminary studies, (2) planning and development, (3) validation, (4) the implementation of the assessment. The study was conducted in an institute of education in Medan, involving 70 prospective teachers in a multiple-choice test instruments and 34 prospective teachers in test rubric and 36 student teachers in the implementation. Assessment instruments developed in the form of multiple choice assessment to measure cognitive competency of practicum of gravimetric analysis and volumetric analysis. Besides developed practicum performance rubric, to measure student competency in planning, doing, and reporting of practicum. Development of assessment tools through needs analysis, the formulation of the draft, and revised based on the advice and experts judgment and students judgment. Test of face validation and content validation, level of difficulty, power of different, distractors, and reliability was obtained multiple choice assessment instruments that are eligible to be used to measure the cognitive aspects of practicum competencies and rubrics to measure the performance of practicum competencies. Implementation of the assessment results indicate that multiple-choice assessment to measure the cognitive aspects of practicum competencies, and showed increased cognitive competencies through practicum activities based TWSD. Rubrics can measure student competency in planning, doing, reporting of practicum, and showed an increased in the competency through practicum activities based TWSD. Cognitive competency of practicum plays a role in influencing competency of doing practicum is 56,8 %.



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