ABSTRAK

RUDI HERMANSYAH SITORUS. Pengembangan Bahan Ajar Kimia Inovatif dan Interaktif Melalui Pendekatan Sainstifik untuk Pengajaran Reaksi Kimia dan Stoikiometri. Program Pascasarjana Universitas Negeri Medan, 2015.

Pengembangan Bahan Ajar Kimia Inovatif dan Interaktif Melalui Pendekatan Sainstifik untuk Pengajaran Reaksi Kimia dan Stoikiometri dijelaskan dalam penelitian ini. Tujuan penelitian adalah untuk mendapatkan bahan ajar kimia yang baik dan standar dalam mengajarkan reaksi kimia dan stoikiometri terhadap mahasiswa Universitas Negeri Medan. Penelitian dilakukan melalui analisis bahan ajar kimia (Diktat kimia umum I), dilanjutkan dengan pengembangan bahan ajar melalui pendekatan saintifik dengan mengintegrasikan tiga model pembelajaran pada pengajaran reaksi kimia dan stoikiometri. Bahan ajar yang telah disusun divalidasi oleh dosen sebagai validator ahli dan kemudian diberikan kepada dosen pengampu mata kuliah kimia umum dan mahasiswa sebagai pengguna bahan ajar untuk dimintai tanggapan terhadap bahan ajar yang telah dikembangkan. Lokasi penelitian di Jurusan Kimia FMIPA Universitas Negeri Medan dengan waktu penelitian pada bulan Februari 2015 sampai dengan April 2015. Sampel dalam penelitian adalah dosen pengampu mata kuliah kimia umum sebanyak 3 orang dan mahasiswa kimia FMIPA UNIMED semester 4 sebanyak 20 orang dengan kriteria sudah mengambil mata kuliah kimia dasar. Berdasarkan hasil angket yang berisi tanggapan dosen dan mahasiswa terhadap bahan ajar telah memenuhi standar kelayakan menurut BSNP. Rata-rata nilai secara keseluruhan komponen adalah 3,39 (layak dan tidak perlu direvisi), berdasarkan tanggapan dosen pengampu kimia umum terhadap bahan ajar, rata-rata nilai secara keseluruhan komponen adalah 3,53 (layak dan tidak perlu direvisi), dan berdasarkan tanggapan mahasiswa rata-rata nilai secara keseluruhan komponen adalah 3,24 (layak dan tidak perlu direvisi). Bahan ajar hasil pengembangan dapat membantu mahasiswa memahami reaksi kimia dan stoikiometri.

Kata kunci : Bahan ajar, sainstifik, reaksi kimia, stoikiometri.

ABSTRACT

RUDI HERMANSYAH SITORUS. Development of Instructional Materials Chemistry Innovative and Interactive Through a scientific approach to teaching chemical reactions and stoichiometry.Graduate Program, State University of Medan, 2015.

Development of Instructional Materials Chemistry Innovative and Interactive Through a scientific approach to teaching chemical reactions and stoichiometry described in this study. The research objective is to get a good chemistry teaching materials and standards in the teaching of chemical reactions and stoichiometry of the Medan State University students. The study was conducted through the analysis of teaching materials chemicals (general chemistry I), followed by the development of teaching materials through the scientific approach by integrating the three models of learning in teaching chemical reactions and stoichiometry. Teaching materials have been prepared validated by the professor as an expert validator and then given to lecturers general chemistry courses and students as the teaching material to be held in response to the teaching materials have been developed. The location of research in the Department of Chemistry, State University of Medan with research time in February 2015 to April 2015. The sample is lecturer of general chemistry courses as many as 3 people and chemistry student of FMIPA UNIMED fourth semester 20 people with the criteria already take courses basic chemistry. Based on the results of questionnaires containing responses lecturer and students of the teaching material has met eligibility standards according to BSNP. The average value of the overall component is 3.39 (feasible and do not need to be revised), based on the response of lecturer of general chemistry to the materials average overall value of the component is 3.53 (feasible and do not need to be revised), and based student response average value of the overall component is 3.24 (feasible and do not need to be revised). The results of the development of teaching materials to help students understand the chemical reactions and stoichiometry.

Keywords: teaching materials, a scientific, chemical reactions, stoichiometry.

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