ABSTRAK

Arita Wulan Dari: Pengembangan Bahan Ajar Kimia Inovatif Berbasis Multimedia Untuk Meningkatkan Hasil Belajar Siswa Pada Pengajaran Larutan Asam Basa. Tesis, Medan: Program Studi Pendidikan Kimia Pascasarjana Universitas Negeri Medan, 2016

Penelitian ini bertujuan untuk mengetahui (1) buku ajar kimia yang dianalisis pada materi larutan asam basa memerlukan revisi atau tidak, (2) kelayakan bahan ajar kimia inovatif berbasis multimedia berdasarkan BSNP, (3) peningkatan hasil belajar siswa siswa dengan bahan ajar kimia inovatif (4) peningkatan motivasi belajar siswa dengan bahan ajar kimia inovatif, (5) efektivitas penggunaan bahan ajar inovatif berbasis multimedia terhadap hasil belajar kimia siswa. Jenis penelitian termasuk *Research and Development*. Populasi penelitian ini adalah buku ajar kimia SMA/MA kelas XI yang ada di sekolah tempat penelitian, semua guru kimia yang ada di kota Langsa, dan semua dosen program studi magister pendidikan kimia Universitas Negeri Medan. Pemilihan sampel menggunakan teknik *purposif sampling.* Sampel dalam penelitian adalah empat buku ajar kimia SMA/MA kelas XI yang ada di sekolah tempat penelitian, 20 orang guru kimia dan 2 orang dosen program pascasarjana program studi magister pendidikan kimia UNIMED sebagai validator ahli. Hasil penelitian menunjukkan (1) buku kimia yang dianalisis memberikan hasil rata-rata berkisar antara 3,36-3,69 adalah cukup baik namun masih dapat kekurangan-kekurangan pada setiap buku sehingga perlu dilakukan pengembangan. (2) Hasil penilaian dosen dan guru kimia terhadap bahan ajar inovatif yang telah dikembangkan sebesar 4,76 dan 4,68 yang berarti sangat valid (sangat layak) dan tidak perlu revisi, serta hasil penilaian dosen terhadap multimedia pembelajaran yang telah dikembangkan sebesar 4,80 adalah sangat valid (sangat layak) dan tidak perlu revisi, (3) peningkatan hasil belajar siswa yang menggunakan bahan ajar inovatif berbasis multimedia pada materi larutan asam basa lebih tinggi dibandingkan hasil belajar siswa yang menggunakan buku ajar pegangan siswadengan nilai $t_{hitung} > t_{tabel}$ (12,125>1,987), (4) motivasi belajar siswa terhadap hasil belajar yang menggunakan bahan ajar inovatif berbasis multimedia pada materi larutan asam basa (R^2=78,20%) lebih tinggi dibandingkan dengan motivasi belajar siswa terhadap hasil belajar yang menggunakan buku ajar pegangan siswa pada materi larutan asam basa (R^2=75,21%), (5) efektifitas penggunaan bahan ajar inovatif berbasis multimedia pada materi larutan asam basa menunjukkan peningkatan hasil belajar siswa untuk siswa di SMAN 1 Langsa sebesar 64%, untuk siswa di SMAN 2 Langsa sebesar 72%, dan untuk siswa di SMAN 3 Langsa sebesar 65%.

Kata Kunci: *Bahan Ajar Kimia, Multimedia, Hasil Belajar, Larutan Asam Basa*

ABSTRACT

AritaWulanDari: Development of Instructional Materials Chemistry-Based Innovative Multimedia To Improve Student Results In Acid Solution Teaching Bases. Thesis, Medan: Chemistry Graduate Studies Program University of Medan, 2016.

The purpose of this research are (1) chemistry books are analyzed on learning alkaline acid solutions require revision or not, (2) the feasibility of an innovative chemical-based teaching materials based multimedia BSNP, (3) improving student learning outcomes of students' innovative teaching materials chemistry, (4) increasing student motivation towards innovative teaching materials chemistry, (5) effective use of innovative multimedia-based teaching materials on learning outcomes chemistry students. This type of research, including research and development (Research and Development). The study population was high school chemistry textbook/MA XI classes in schools where the research, all the chemistry teacher in the city of Langsa, and all lecturers chemistry education master study program at Medan State University. The sample selection using purposive sampling technique.Samples are four high school chemistry textbook/MA XI classes in schools where the research, 20 teachers and 2 lecturers chemistry graduate programs of chemical education master study program at Medan State University as an expert validator. The results showed that: (1) chemistry book which analyzed give an average results ranged from 3.36 to 3.69 is pretty good and does not require revision, but there are still shortcomings in each book so necessary for the development. (2) Results of the assessment of the lecturers of innovative teaching materials that have been developed 4.76 is very valid (very worthy) and do not need revision, while the results of the assessment of teachers of innovative teaching materials that have been developed by 4.68 is very valid (very decent) and do not need revision, and assessment of the multimedia instructional faculty that has been developed by 4.80 is very valid (very worthy) and do not need revision, (3) improved student learning outcomes that uses innovative teaching materials based multimedia material base acid solution higher than the results of student learning using the student handbook with $t_{count} > t_{table}$ (12,125>1,987), (4) The students motivation to learn the results of the use of innovative teaching materials based multimedia material base acid solution (R^2 = 78.20%) was higher than the students motivation for learning outcomes that students use textbooks grip on the material solution of acids and bases (R^2 = 75.21%), (5) effective use of innovative multimedia-based teaching materials on the material base acid solution showed increase learning outcomes for students at SMAN 1 Langsa by 64%, to students at SMAN 2 Langsa by 72%, and for students at SMAN 3 Langsa by 65%.

Keywords: Instructional Materials Chemistry, Multimedia, Learning Outcomes, solution Acids Bases