ABSTRAK

Azizah Hawanif, NIM 4173331009 (2021). Pengembangan Lembar Kerja Siswa (LKS) Elektronik Berbasis Android dengan Pendekatan *Contextual Taching and Learning* (CTL) Pada Materi Termokimia.

Penelitian ini bertujuan untuk mengetahui: (1) Bagaimana langkah – langkah pengembangan LKS Elektronik berbasis android dengan pendekatan CTL agar memenuhi standar BSNP; (2) Kelayakan pengembangan LKS Elektronik berbasis android dengan pendekatan CTL berdasarkan standar BSNP dan; (3) Apakah hasil belajar siswa yang dibelajarkan menggunakan LKS Elektronik berbasis Android dengan pendekatan CTL pada materi termokimia lebih tinggi dari nilai KKM. Penelitian ini dilakukan di MAN 1 Medan dengan sampel yang di teliti adalah kelas XI MIA 8 MAN 1 Medan yang dipilih dengan menggunakan teknik purposive sampling. Instrumen yang digunakan adalah instrumen non-tes berupa angket BSNP yang telah di modifikasi dan angket respon siswa terhadap LKS yang dikembangkan serta instrumen tes sebanyak 20 soal yang valid dengan reliabilitas 0,89. Teknik Analisa data dilakukan dengan: (1) Uji kelayakan LKS sesuai BSNP; (2) Uji *One Sample T-test* dan; (3) Angket respon siswa terhadap LKS yang dikembangkan. Hasil yang diperoleh dalam penelitian ini adalah: (1) Pengembangan dilakukan dengan menggunakan metode *R&D* dengan model pengembangan *ADDIE* yang disesuaikan dengan standar kelayakan BSNP; (2) LKS yang telah dikembangkan sesuai standar BSNP divalidasi oleh ahli materi dan ahli media yang merupakan Dosen UNIMED dan Guru Kimia MAN 1 Medan dengan memperoleh nilai rata-rata presentase dari ahli materi sebesar 84% dengan kriteria "sangat layak" dan nilai rata-rata presentase dari ahli media sebesar 91,88% dengan kriteria "sangat layak" dan berdasarkan hasil respon siswa terhadap LKS didapatkan hasil dengan rata-rata presentase sebesar 85,95% dengan kriteria "sangat setuju", sehingga secara keseluruhan LKS layak untuk digunakan pada proses belajar mengajar khususnya pada materi termokimia; (3) Hasil belajar siswa menggunakan LKS elektronik berbasis android dengan pendekatan CTL pada materi termokimia lebih tinggi dari nilai KKM di sekolah, dimana pada taraf signifikan 0,05 nilai $t_{hitung} > t_{tabel}$ yaitu 4,122158112 > 2,045229642.

Kata Kunci: Pengembangan, Lembar Kerja Siswa (LKS), Elektronik, Berbasis Android, Pendekatan *Contextual Teaching and Learning*, Termokimia

ABSTRACT

Azizah Hawanif, NIM 4173331009 (2021). *Development of Android-Based Electronic Student Worksheets (LKS) with Contextual Taching and Learning (CTL) Approach in Thermochemical Materials.*

This study aims to determine: (1) How are the steps to develop Android-based electronic worksheets with the CTL approach in order to meet BSNP standards; (2) Feasibility of developing android-based electronic worksheets with the CTL approach based on BSNP standards and; (3) Is the student learning outcomes taught using Android-based electronic worksheets with the CTL approach on thermochemical material higher than the KKM score. This research was conducted in MAN 1 Medan with the sample studied was class XI MIA 8 MAN 1 Medan which was selected using purposive sampling technique. The instrument used was a non-test instrument in the form of a modified BSNP questionnaire and a student response questionnaire to the developed worksheets and a test instrument of 20 valid questions with a reliability of 0.89. The data analysis technique is carried out by: (1) feasibility test of worksheets according to BSNP; (2) One Sample T-test and; (3) Questionnaire students' responses to the developed worksheets. The results obtained in this study are: (1) Development is carried out using the R&D method with the ADDIE development model adjusted to the BSNP eligibility standards; (2) The worksheets that have been developed according to BSNP standards are validated by material experts and media experts who are UNIMED Lecturers and Chemistry Teachers of MAN 1 Medan by obtaining an average percentage value from material experts of 84% with the criteria "very feasible" and an average value The average percentage of media experts is 91.88% with the criteria "very feasible" and based on the results of students' responses to the student worksheets, the results are obtained with an average percentage of 85.95% with the criteria "strongly agree", so that overall student worksheets are suitable for use in teaching and learning process, especially in thermochemical material; (3) Student learning outcomes using android-based electronic worksheets with the CTL approach in thermochemical material are higher than the KKM scores in schools, where at the significant level 0.05 the value of $t_{count} > t_{table}$ is 4.122158112> 2.045229642.

Keywords: *Development, Student Worksheet (LKS), Electronic, Android Based, Contextual Teaching and Learning Approach, Thermochemistry*