ABSTRAK

ERLINA, Pengembangan Penuntun Praktikum Kimia Green Chemistry Berbasis Discovery Learning Pada Kelas XI MIPA Semester II, Medan: Program Studi Pendidikan Kimia, Pascasarjana Universitas Negeri Medan, 2020.

Penelitian ini bertujuan untuk menganalisis penuntun praktikum sekolah yang diteliti, Pengembangan dan kelayakan penuntun praktikum kimia Green Chemistry berbasis Discovery Learning pada kelas XI MIPA semester II berdasarkan hasil standarisasi dan pendapat validator ahli, dan untuk mengetahui motivasi belajar siswa dan hasil belajar siswa yang diajar menggunakan penuntun praktikum kimia Green Chemistry berbasis Discovery Learning. Jenis penelitian ini menggunakan metode *Development Research* yang menggunakan pengembangan model *ADDIE (Analysis, Design, Development, Implementation and Evaluations)*. Populasi dalam penelitian ini, adalah (1) seluruh siswa kelas XI MIPA di SMA Cerdas Murni, (2) Penuntun praktikum kimia kelas XI semester II yang telah beredar, (3) guru kimia SMA/MA. Sampel dalam penelitian ini adalah (1) 72 orang siswa kelas XI pada 2 kelas yang berbeda di SMA Cerdas Murni, (2) Penuntun praktikum kimia yang telah beredar untuk SMA/MA kelas XI semester II, (3) 5 guru kimia, 3 orang dosen kimia di Universitas Negeri Medan. Para meter yang diukur adalah kelayakan penuntun praktikum, hasil belajar siswa dan motivasi belajar siswa. Instrumen yang digunakan adalah nontes untuk kelayakan penuntun praktikum dan motivasi siswa sedangkan untuk hasil belajar siswa memnggunakan instrumen test. Data kelayakan penuntun praktikum dianalisis secara deskriftif, sedangkan data hasil belajar dan motivasi siswa dianalisis secara statistik dengan uji t satu pihak. Hasil penelitian menunjukkan bahwa : (1) Tingkat kelayakan penuntun peraktikum kimia SMA/MA kelas XI semester II yang diterbitkan oleh beberapa penerbit memiliki kategori cukup layak, namun komponen kelayakan isi, kemutakhiran, mengembangkan kecakapan hidup serta sistem penyajian penuntun praktikum masih perlu dikembangkan. (2) Hasil validasi kelayakan penuntun praktikum green chemistri memiliki rata-rata 4,33 sehingga termasuk kategori sangat layak. (3) Hasil belajar siswa menggunakan penuntun praktikum yang dikembangkan lebih tinggi dari hasil belajar siswa yang menggunakan buku yang beredar, dengan nilai hasil belajar siswa (Sig < α) dan ($t_{hitung} > t_{tabel}$) yaitu (0,00 < 0,05) dan (3,288 > 2,000). (4) Motivasi belajar siswa menggunakan penuntun praktikum yang dikembangkan lebih tinggi dari motivasi belajar siswa yang menggunakan buku yang beredar. (5) Motivasi belajar siswa berkolerasi positif dan signifikan dengan hasil belajar siswa yang dibelajarkan menggunakan penuntun praktikum kimia green chemistry berbasis Discovery Learning.

Kata Kunci: Penuntun praktikum kimia, kimia Green Chemistry, Discovery Learning, motivasi siswa, hasil belajar.

ABSTRACT

ERLINA, Development of Green Chemistry Practicum Guide for Discovery Learning Based on MIPA Class XI Semester II, Medan: Chemistry Education Study Program, Postgraduate Medan State University, 2019.

This study aims to analyze the school practical guide under study, the development and feasibility of a Discovery Learning-based Green Chemistry lab guide in class XI MIPA semester II based on the results of standardization and opinion of expert validators, and to determine student learning motivation and student learning outcomes taught using guides. Green Chemistry practicum based on Discovery Learning. This type of research uses the Development Research method that uses the ADDIE model development (Analysis, Design, Development, Implementation and Evaluations). The population in this study were (1) all students of class XI MIPA at SMA Cerdas Murni, (2) Chemistry practicum guide for class XI semester II that has been circulating, (3) chemistry teachers of SMA / MA. The sample in this study were (1) 72 students of class XI in 2 different classes in SMA Cerdas Murni, (2) Chemistry practicum guides that have been circulating for SMA / MA class XI semester II, (3) 5 chemistry teachers, 3 people lecturer in chemistry at the State University of Medan. The meters that are measured are the feasibility of the practicum guide, student learning outcomes and student learning motivation. The instrument used was non-test for the feasibility of the practicum guide and student motivation, while for student learning outcomes using a test instrument. The data on the feasibility of the practicum guide were analyzed descriptively, while the data on student learning outcomes and motivation were statistically analyzed using one-sided t test. The results showed that: (1) The feasibility level of a chemistry lecturer for SMA / MA class XI semester II published by several publishers was in a fairly decent category, but the components of content feasibility, updating, developing life skills and the presentation system of practicum guides still need to be developed. (2) The results of the validation of the feasibility of the green chemistry lab guide have an average of 4.33 so it is in the very feasible category. (3) Student learning outcomes using a practicum guide developed were higher than student learning outcomes using books in circulation, with student learning outcomes ($Sig < \alpha$) and ($tcount > t$ table), namely ($0.00 < 0.05$) and ($3,288 > 2,000$). (4) Students 'learning motivation using a practicum guide that is developed is higher than students' learning motivation using books in circulation. (5) Student learning motivation has a positive and significant correlation with student learning outcomes who are taught using the Discovery Learning-based green chemistry lab guide.

Keywords: Chemistry practicum guide, green chemistry, Discovery Learning, student motivation, learning outcomes.