ABSTRAK

Khoirunnisya Dalimunthe. NIM 8206173002. Pengembangan Buku Elektronik Biologi Materi Sistem Saraf Berbasis Mind Map. Medan. 2023.

Tujuan penelitian untuk mengetahui tingkat kelayakan buku elektronik (*e-book)* biologi materi sistem saraf berbasis *mind map*. Penelitian dilakukan di MAN 2 Padang Sidempuan pada kelas XI MIPA. Penelitian pengembangan ini menggunakan model ADDIE yang terdiri dari 5 tahapan, yaitu *analysis* (analisis), *design* (perancangan), *development* (pengembangan), *implementation* (implementasi) dan *evaluation* (evaluasi). Tahap analisis terdiri dari analisis kurikulum, perangkat pembelajaran, materi, kebutuhan siswa dan guru. Tahap perancangan terdiri dari rancangan perangkat, cover, isi dan *mind map e-book* biologi materi sistem saraf. Tahap pengembangan didapatkan bawah hasil validasi yang dilakukan oleh tim ahli materi diperoleh sebesar 88,9 kategori "sangat layak", ahli desain pembelajaran diperoleh sebesar 80,9 kategori "layak" serta ahli desain *layout* diperoleh sebesar 97,1 kategori "sangat layak". Berdasarkan tingkat uji coba produk perseorangan diperoleh sebesar 67,0 kategori "baik", tingkat uji coba skala kecil diperoleh sebesar 70,9 kategori "baik" serta tingkat uji coba skala besar diperoleh 81,0 kategori "baik". Tahap implementasi diperoleh dari perbedaan nilai *pre-test* dan *post-test* pada kelas kontrol dan eksperimen. Tahap evaluasi diperoleh perbedaan rata-rata hasil belajar siswa dengan nilai P pada kelas kontrol dan eksperimen diperoleh sebesar $0,000 < 0,05$. Nilai *N-Gain* pada kelas kontrol diperoleh sebesar 0,71 dengan kategori tinggi dan pada kelas eksperimen diperoleh sebesar 0,59 dengan kategori sedang. Oleh karena itu, *e-book* biologi materi sistem saraf berbasis *mind map* cukup efektif digunakan sebagai bahan ajar tambahan dalam pembelajaran.

Kata Kunci : Buku Elektronik, Sistem Saraf, *Mind Map*.

ABSTRACT

Khoirunnisya Dalimunthe. NIM 8206173002. Development Of a Mind Map Based Biology Electronic Book on Nervous System Material. Medan. 2023.

The aim of the research is to determine the feasibility level of electronic books (e-books) on biology based on mind map material on the nervous system. The research was conducted at MAN 2 Padang Sidempuan in class XI MIPA. This development research uses the ADDIE model which consists of 5 stages, namely analysis, design, development, implementation and evaluation. The analysis stage consists of analyzing the curriculum, learning tools, materials, student and teacher needs. The design stage consists of device design, cover, contents and mind map of the biology e-book on nervous system material. The development stage was obtained from the validation results carried out by the material expert team which was obtained at 88.9 in the "very feasible" category, the learning design expert obtained 80.9 in the "feasible" category and the layout design expert obtained 97.1 in the "very feasible" category. Based on the individual product trial level, it was obtained at 67.0 in the "good" category, the small scale trial level was obtained at 70.9 in the "good" category and the large scale trial level was obtained at 81.0 in the "good" category. The implementation stage is obtained from the difference in pre-test and post-test scores in the control and experimental classes. In the evaluation stage, the average difference in student learning outcomes with the P value in the control and experimental classes was $0.000 < 0.05$. The N-Gain value in the control class was 0.71 in the high category and in the experimental class it was 0.59 in the medium category. Therefore, the biology e-book with mind map-based material on the nervous system is quite effective as additional teaching material in learning.

Keywords: Electronic Book, Nervous System, *Mind Map*.