

ABSTRACT

Paiman. NIM 8206174004. Development of Research-Based Gastropod Diversity Textbooks in Simalungun Regency, North Sumatra. Medan State University Postgraduate Program (UNIMED). Medan. 2022.

This study aims to develop textbooks on *Gastropod* diversity, determine the feasibility of books that are validated by material experts, learning design experts, layout experts, teachers, and students, and see the effectiveness of these textbooks in biology learning carried out in class X SMA Private Exemplary Tanahjawa. The research design uses a 4D (four-D) development model which consists of 4 stages, namely; defining, designing, developing, and disseminating. Validation test (material aspects, learning design aspects, layout aspects) and practitioners using a Likert scale. The data was obtained using a questionnaire and analyzed by descriptive analysis techniques. The results showed that: (1) The results of the validation of the *Gastropod* diversity textbook were feasible with an average validation value of 81.34%; (2) The results of the validation of the material aspect of 85.92% in the appropriate category; (3) The results of the validation of the design aspects learning is 83.44% in the appropriate category; (4) The results of the validation of layout design aspects are 83.44% in the appropriate category; and (5) The average percentage of teacher and student responses is 90.50%, in the very good category. The results of the effectiveness test using the t-test showed the value of $t_{\text{arithmetical}} > t_{\text{table}}$ ($9.568 > 2.004$) and the probability value (2 tailed) < 0.05 ($0.000 < 0.05$) then it can be concluded that there was a significant difference between the experimental class compared to the control class, and the results of the N-Gain post-test effectiveness test in the experimental class were 0.63 in the medium categories. This means that the *Gastropod* diversity textbook can be used in biology learning in class X SMA and can be circulated especially in Simalungun Regency.

Keywords: *Textbooks, Gastropoda, Feasibility of Textbooks, Effectiveness.*

ABSTRAK

Paiman. NIM 8206174004. Pengembangan Buku Ajar Keanekaragaman Gastropoda Berbasis Riset di Kabupaten Simalungun Sumatera Utara. Program Pascasarjana Universitas Negeri Medan (UNIMED). Medan. 2022.

Penelitian ini bertujuan untuk mengembangkan buku ajar keanekaragaman *Gastropoda*, mengetahui kelayakan buku yang validasi oleh ahli materi, ahli desain pembelajaran, ahli *layout*, guru, siswa, dan melihat efektivitas buku ajar tersebut dalam pembelajaran biologi yang dilaksanakan di kelas X SMA Swasta Teladan Tanahjawa. Desain penelitian menggunakan model pengembangan 4D (*four-D*) yang terdiri dari 4 tahap, yaitu; pendefinisian (*define*), perancangan (*design*), pengembangan (*develop*), dan penyebaran (*disseminate*). Uji validasi (aspek materi, aspek desain pembelajaran, aspek *layout*) dan praktisi dengan menggunakan skala *Likert*. Data diperoleh menggunakan angket dan dianalisis dengan teknik analisis deskriptif. Hasil penelitian menunjukkan bahwa: (1) Hasil validasi buku ajar keanekaragaman *Gastropoda* layak dengan rata-rata nilai validasi sebesar 81,34%; (2) Hasil validasi aspek materi sebesar 85,92% pada kategori layak; (3) Hasil validasi aspek desain pembelajaran sebesar 83,44% pada kategori layak; (4) Hasil validasi aspek desain *layout* sebesar 83,44% pada kategori layak; dan (5) Rata-rata persentasi tanggapan guru dan peserta didik sebesar 90,50%, pada kategori sangat baik. Hasil uji efektivitas menggunakan uji *t* menunjukkan bahwa nilai *t* hitung > *t* Tabel ($9,568 > 2,004$) dan nilai probabilitas (2 tailed) < 0,05 ($0,000 < 0,05$) maka dapat disimpulkan terdapat perbedaan signifikan antara kelas eksperimen dibandingkan dengan kelas kontrol, dan hasil uji Efektivitas posttest N-Gain pada kelas eksperimen 0,63 pada kategori sedang. Artinya buku ajar keanekaragaman *Gastropoda* dapat digunakan pada pembelajaran biologi di kelas X SMA dan dapat diedarkan khususnya di Kabupaten Simalungun.

Kata Kunci : *Buku Ajar, Gastropoda, Kelayakan Buku Ajar, Efektivitas.*