

ABSTRAK

FRANS BASTEN NICO ARLIN WARUWU: Pengembangan Buku Pengayaan Keanekaragaman Liken Berbasis Riset di Kawasan Taman Hutan Raya Bukit Barisan Kabupaten Karo.

Penelitian ini bertujuan menghasilkan produk berupa buku pengayaan tentang Keanekaragaman Liken di Kawasan Taman Hutan Raya Bukit Barisan yang layak ditujukan kepada pelajar, guru, mahasiswa, atau masyarakat umum dalam memperkaya pengetahuan, pengenalan dan pemahaman mengenai liken. Jenis penelitian ini adalah penelitian dan pengembangan (*Research and Development*). Hasil penelitian lapangan digunakan untuk mengembangkan produk buku pengayaan. Model pengembangan yang digunakan dalam penelitian ini adalah model pengembangan Thiagarajan (4-D) yang terdiri atas tahap pendefinisian (*define*), perancangan (*design*), pengembangan (*develop*) dan penyebaran (*disseminate*). Buku pengayaan yang dikembangkan divalidasi berdasarkan aspek materi dan penyajian materi oleh validator ahli materi maka diperoleh hasil skor berupa persen yakni, 93% dengan kategori sangat layak. Selanjutnya aspek bahasa buku divalidasi oleh ahli bahasa maka diperoleh hasil skor berupa persen yakni, 91% dengan kategori sangat layak. Terakhir untuk aspek kegrafisan buku divalidasi oleh ahli desain layout maka diperoleh hasil skor berupa persen yakni, 91% dengan kategori sangat layak. Hasil uji coba produk untuk buku pengayaan yang dikembangkan diperoleh dari tiga aspek yakni, uji coba perorangan diperoleh hasil skor berupa persen yakni, 92,5% dengan kategori sangat layak, uji coba kelompok kecil diperoleh hasil skor berupa persen yakni, 90,6% dengan kategori sangat layak dan uji coba kelompok terbatas diperoleh hasil skor berupa persen yakni 91% dengan kategori sangat layak. Buku pengayaan dinyatakan sangat layak kemudian disebar dan diuji efektifitas penggunaannya kepada 30 mahasiswa jurusan Biologi Universitas Negeri Medan diperoleh hasil rata-rata nilai *N-Gain* sebesar 0,75 dengan kategori tinggi, dan skor persen 75% kategori efektif. Selanjutnya hasil *t-test* diperoleh $t_{hitung} > t_{tabel}$ yakni, $12,87 > 2,045$ untuk kemampuan kognitif mahasiswa jurusan Biologi Universitas Negeri Medan, maka dapat disimpulkan dari hasil *t-test* yang diperoleh signifikan dan buku pengayaan yang dikembangkan berpengaruh dalam meningkatkan kemampuan kognitif mahasiswa.

Kata kunci: Pengembangan, Buku Pengayaan, Liken, Tahura Bukit Barisan

ABSTRACT

FRANS BASTEN NICO ARLIN WARUWU:The Development of a Research-Based Lichen Diversity Enrichment Book in the Bukit Barisan Forest Park Area, Karo Regency.

The aim of this study is to produce a product in the form of an enrichment book on Lichen Diversity in the Bukit Barisan Forest Park which is appropriate for students, teachers, students, or the general society in enriching knowledge, introduction and understanding of lichen. This type of research is research and development (Research and Development). The results of the field research are used to develop enrichment book products. The development model used in this research is the Thiagarajan (4-D) development model which consists of the stages of defining, designing, developing and disseminating. The enrichment book that was developed and was validated based on the material aspect and presentation of the material by the material expert validator, so the score was obtained in the form of a percent, that is 93% with a very decent category. Furthermore, the language aspect of the book has been validated by linguists, so the score has obtained in the form of a percent, that is 91% with a very decent category. Finally, for the graphic aspect of the book, which was validated by a designing expert, the score was obtained in the form of a percent, that is 91% with a very decent category. The results of product trials for the developed enrichment book were obtained from three aspects, namely, individual trials obtained scores in the form of percent, that is 92.5% in the very feasible category, small group trials obtained scores in the form of percent, that is 90.6% with the very feasible category and the limited group trial obtained a score of 91% in the very feasible category. The enrichment book was declared very feasible, then distributed and tested for its effectiveness to 30 students of Biology majoring. State University of Medan, the average N-Gain score was 0.75 in the high category and the percent score was 75% in the effective category. Furthermore, the results of the t-test obtained $t_{count} > t_{table}$ that is, $12.87 > 2.045$ for the cognitive abilities of students majoring in Biology, State University of Medan, it can be concluded from the results of the t-test that the results obtained are significant and the enrichment book developed has an effect on improving students' cognitive abilities.

Keywords: Development, Enrichment Book, Lichens, Tahura Bukit Barisan