

ABSTRAK

Irmayati, Pengembangan Buku Ajar Mikrobiologi Berbasis Literasi Sains Pada Mahasiswa Jurusan Biologi FMIPA Unimed. Tesis. Program Pascasarjana Universitas Negeri Medan 2018.

Abstrak: Penelitian ini bertujuan untuk mengetahui: (1) Tingkat Kelayakan Buku Ajar Mikrobiologi Berbasis Literasi Sains Menurut Ahli Materi; (2) Tingkat Kelayakan Buku Ajar Mikrobiologi Berbasis Literasi Sains Menurut Ahli Desain; (3) Tingkat Kelayakan Buku Ajar Mikrobiologi Berbasis Literasi Sains Menurut Dosen Pengampu; (4) Tingkat Kelayakan Buku Ajar Mikrobiologi Berbasis Literasi Sains Menurut mahasiswa; (5) Tingkat kelayakan buku ajar mikrobiologi berbasis literasi sains digunakan dalam proses pembelajaran mata kuliah mikrobiologi. Jenis Penelitian ini adalah penelitian pengembangan dengan model pengembangan Borg dan Gall, yang dimodifikasi sesuai kebutuhan penelitian. Model ini meliputi enam tahapan, yaitu; (1) Penelitian pendahuluan; (2) Perencanaan produk; (3) Pengumpulan bahan; (4) Pengembangan produk awal; (5) Validasi produk dan (6) Revisi dan Uji coba. Subjek Uji coba terdiri dari tim ahli materi, ahli desain, 2 orang dosen pengampu matakuliah Mikrobiologi, 3 mahasiswa pendidikan biologi Unimed pada uji perorangan, 9 mahasiswa pada kelompok kecil dan 40 orang mahasiswa pada uji kelompok lapangan terbatas. Data tentang kualitas produk pengembangan ini dikumpulkan dengan angket, kemudian data dianalisis dengan teknik deskriptif kuantitatif dan kualitatif. Hasil penelitian pengembangan buku ajar Mikrobiologi berbasis literasi sains menunjukkan bahwa; (1) Tingkat kelayakan Buku Ajar Mikrobiologi menurut ahli materi berada pada kriteria “sangat baik” (84,48%); (2) Tingkat kelayakan Buku Ajar Mikrobiologi Dasar menurut ahli desain berada pada kriteria “sangat baik” (86%); (3) Tingkat kelayakan Buku Ajar Mikrobiologi Dasar menurut dosen pengampu matakuliah Mikrobiologi berada pada kriteria “sangat baik” (89,13%); (4) Tingkat kelayakan Buku Ajar Mikrobiologi menurut mahasiswa pada kriteria “sangat baik” (82,12%), sehingga dapat disimpulkan bahwa produk penelitian pengembangan buku ajar Mikrobiologi berbasis literasi sains yang dikembangkan layak untuk digunakan sebagai bahan ajar tambahan mahasiswa atau sebagai penunjang pembelajaran pada matakuliah Mikrobiologi. Mengingat penelitian ini hanya dilakukan sampai uji coba lapangan terbatas, maka untuk mengetahui keefektifannya terhadap buku ajar perlu dilakukan penelitian lebih lanjut.

ABSTRACT

Irmayati, The Development of Microbiology Textbook Based on Science Literacy for Undergraduate Biology Students of State University of Medan. Thesis of graduate Program Universitas Negeri Medan.

Abstract: This research was conducted to find: (1) The feasibility of Microbiology textbook Based on Science Literacy according to content experts; (2) The feasibility of Microbiology textbook Based on Science Literacy according to design experts; (3) The feasibility of Microbiology textbook Based on Science Literacy according to microbiology lecture; (4) The feasibility of Microbiology textbook Based on Science Literacy according to biology undergraduate students; (5) The feasibility of Microbiology textbook Based on Science Literacy to use in Microbiology course. This was development research, which adapt Borg and Gall development model, modified in accordance with research necessity. This development model consists of six stages, namely; (1) preliminary research; (2) Product planning; (3) Material collection; (4) early product development; (5) Validation of products and (6) Revisions and Trials. The trial subjects were 2 content experts, 2 design experts 2 Microbiology lecturers, 3 biology students for one-to-one trial, 9 biology students for small group trial and 40 students for limited field trial. The quality of textbook data was collected by questionnaires, analyzed by descriptive quantitative and qualitative analysis. The result of research development of textbook of microbiology based on science literacy showed that; (1) The feasibility level of the Microbiology textbook according to the content expert is in the criteria of "excellent" (84.48%); (2) The feasibility level of the Microbiology textbook according to the design expert is at "very good" criteria (86%); (3) The feasibility level of the Microbiology textbook according to the lecturers of the Microbiology course subject is in the criteria of "excellent" (89.13%); (4) The feasibility level of Microbiology textbook according to the students on the criteria of "very good" (82.12%), so it could be concluded that microbiology textbook based on science literacy developed is feasible to use as additional material for students or as a support of learning in the course of Microbiology. Given this research was only done until limited field trial, further research are needed in order to find its effectiveness.

