

ABSTRAK

Candra Gunawan Sihombing, NIM 4173141005 (2021). Pengembangan Buku Ajar Kultur Jaringan Berbasis Literasi Sains pada Media Kultur Jaringan dan Kultur Protolas.

Penelitian ini bertujuan untuk mengetahui kelayakan buku ajar kultur jaringan berbasis literasi sains pada topik media kultur jaringan dan kultur protolas. Subjek dalam penelitian ini adalah dosen mata kuliah kultur jaringan dan mahasiswa jurusan Biologi di Universitas Negeri Medan. Penelitian ini merupakan penelitian pengembangan dengan model Dick and Carrey yang dimodifikasi sampai pada langkah yang kedelapan yaitu evaluasi formatif dimana rancangan, proses, atau program sudah dianggap selesai. Hasil penelitian menunjukkan bahwa (1) penilaian dosen ahli materi berdasarkan kelayakan isi, kesesuaian materi dengan kompetensi dasar dan komponen literasi sains diperoleh skor rata-rata sebesar 3,69 atau 92,3% dengan kriteria sangat layak, (2) penilaian dosen ahli desain pembelajaran berdasarkan kesesuaian materi, sistematika penyampaian materi, efisiensi buku kultur jaringan dan kebahasaan diperoleh skor rata-rata sebesar 3,26 atau 81.5% dengan kriteria layak, (3) penilaian oleh dosen ahli desain *layout* buku berdasarkan desain sampul dan desain isi buku diperoleh skor rata-rata sebesar 3,77 atau 94,2% dengan kriteria sangat layak, (4) penilaian oleh dosen pengampu matakuliah kultur jaringan diperoleh skor rata-rata sebesar 3,80 atau 94,8% dengan kriteria sangat layak dan (5) penilaian oleh mahasiswa dengan rata-rata 3,52 atau 90,6% yang termasuk kriteria sangat layak. Sehingga dapat disimpulkan bahwa buku kultur jaringan berbasis literasi sains yang dikembangkan telah layak menurut dosen ahli materi, desain pembelajaran, desain *layout* buku, dosen pengampu matakuliah kultur jaringan dan mahasiswa sehingga buku kultur jaringan berbasis literasi sains pada topik media kultur jaringan dan kultur protolas dapat digunakan sebagai buku pendamping/tambahan bagi dosen, mahasiswa, pembaca secara umum dan peneliti yang tertarik di bidang kultur jaringan.

Kata-kata kunci: Pengembangan; buku ajar; literasi sains; media kultur jaringan; kultur protolas

ABSTRACT

Candra Gunawan Sihombing, NIM 4173141005 (2021). Development of Tissue Culture Textbook Based on Scientific Literacy on Tissue Culture Media and Protoplast Culture.

This study aims to find out the feasibility of tissue culture books based on scientific literacy on the topic of tissue culture media and protoplast culture. The subjects in this study were lecturers of tissue culture courses and students majoring in Biology at Universitas Negeri Medan. This research is a study using the Dick and Carrey model which reaches the eighth step, namely formative evaluation where the process or program is considered complete. The results showed that (1) the assessment of material experts based on content, the suitability of the material with basic competencies and scientific literacy components obtained an average score 3,69 or 92,3% with very worthy criteria, (2) teachers of learning design experts based on material, systematic delivery of material, the efficiency of tissue culture and linguistic books obtained an average score 3,26 or 81,5% with worthy criteria, (3) an assessment by an expert lecturer on book layout design based on the cover design and book content design obtained an average score 3,77 or 94,2% with very worthy criteria, (4) the assessment by the lecturer in the tissue culture course obtained an average score 3,80 or 94,8% with very worthy criteria and (5) the assessment by students obtained an average score 3,52 or 90,6% included the very worthy criteria. So it can be said that the tissue culture textbook based on science literacy that has been developed is feasible according to material expert lecturers, learning designs, book layout designs, lecturers in tissue culture courses and students so that tissue culture books based on scientific literacy on the topic of tissue culture media and protoplast culture can be used as a main/additional book for lecturers, students, readers in general and researchers who are interested in the field of tissue culture.

Keywords : Development, textbook, scientific literacy, tissue culture media, protoplast culture

