

## ABSTRAK

### **Deliana Friska Siregar, NIM 4173341011 (2017). Pengembangan Buku Ajar Kultur Jaringan Berbasis Literasi Sains sebagai Sumber Belajar Mahasiswa.**

Penelitian bertujuan untuk mengembangkan dan mengetahui kelayakan buku ajar kultur jaringan berbasis literasi sains yang dilaksanakan pada Nopember 2020 hingga Mei 2021. Penelitian ini menggunakan model pengembangan Dick & Carrey yang dimodifikasi sampai tahap evaluasi formatif. Instrumen yang digunakan berupa angket yang diisi oleh validator (ahli materi, ahli desain pembelajaran, ahli desain layout), dosen mata kuliah Kultur Jaringan, dan mahasiswa jurusan biologi. Hasil penelitian menunjukkan 77% mahasiswa mengalami kesulitan mempelajari materi keragaman somaklonal dan perlu penambahan materi aplikasi kultur, belum ada buku ajar kultur jaringan berbasis literasi sains di perpustakaan UNIMED, 76,9% mahasiswa menyatakan menyukai materi keragaman somaklonal, 86,6% menyatakan sulit untuk dipelajari, 53,8% materi menggambarkan interaksi sains, lingkungan, teknologi dan masyarakat dan 30,8% tidak dijelaskan materi aplikasi kultur. Analisis validator menunjukkan: 86% (sangat layak) dari ahli materi, 91% (sangat layak) dari ahli desain pembelajaran dan 91% (sangat layak) dari ahli desain layout. Persentase respon menunjukkan: 93% (sangat layak) dari dosen, 86% (sangat layak) dari perorangan, 90% (sangat layak) dari kelompok kecil dan 89% (sangat layak) dari kelompok terbatas.

Kata kunci: Pengembangan, buku ajar, kultur jaringan, literasi sains

## ABSTRACT

**Deliana Friska Siregar, NIM 4173341011 (2017). Development of a Literacy Science-Based Tissue Culture Textbook as a University Student Learning Resource.**

This study aims to develop and determine the feasibility of a science literacy-based tissue culture textbook which was held from November 2020 to May 2021. The study used a modified Dick & Carrey development model to the formative evaluation stage. The instrument used was in the form of a questionnaire filled out by validators (material expert, learning design expert and layout design expert) Tissue Culture course lecturers, and students majoring in biology. The results showed that 77% of students had difficulty in learning somaclonal diversity material and was needed additional culture application material, there were no scientific literacy-based tissue culture textbooks in the UNIMED library, 76.9% of students said they liked somaclonal diversity material, 86.6% said it was difficult to study, 53.8% of the material described the interaction of science, environment, technology and society and 30.8% did not explain the material application of culture. Validator analysis showed: 86% (very feasible) from material expert, 91% (very feasible) from learning design expert, 91% (very feasible) from layout design expert. The percentage of responses showed: 93% (very feasible) from lecturer, 86% (very feasible) from individuals, 90% (very feasible) from small groups and 89% (very feasible) from limited groups.

Keywords: Development, textbooks, tissue culture, scientific literacy