

## ABSTRAK

**NAIMATUSSYIFA DAULAY. Pengembangan Buku Ajar Genetika Mendel Berbasis Riset Di Jurusan Biologi Universitas Negeri Medan.** Tesis: Program Studi Pendidikan Biologi Pascasarjana Universitas Negeri Medan. 2019.

Penelitian ini bertujuan menghasilkan produk berupa buku ajar Genetika Mendel berbasis riset pada *Drosophila melanogaster* yang layak digunakan dalam mata kuliah Genetika. Model pengembangan yang digunakan dalam penelitian ini adalah model pengembangan Thiagarajan (4D) yang terdiri dari tahap *define*, *design*, *development*, dan *dissemination*, namun tahap penelitian yang dilakukan hanya sampai *development*. Buku ajar yang dikembangkan divalidasi berdasarkan empat kriteria yaitu materi/isi, bahasa, desain pembelajaran, dan desain *layout*. Subjek uji coba yaitu ahli materi genetika, pembelajaran, *layout*, dan tanggapan mahasiswa yang telah mengambil mata kuliah Genetika. Hasil validasi produk oleh tim ahli materi sebesar 95,4% kategori “Sangat Baik”, ahli bahasa sebesar 84,37% kategori “Sangat Baik”, ahli desain pembelajaran sebesar 94,4% kategori “Sangat Baik”, tim ahli *layout* sebesar 85% kategori “Sangat Baik”, dan tanggapan mahasiswa secara perorangan, kelompok kecil, dan kelompok terbatas berada pada kategori “Sangat Baik” dengan nilai secara berurutan 91,1%, 83,4%, dan 85,8%. Dapat disimpulkan bahwa produk dapat dimanfaatkan sebagai buku ajar dalam kegiatan pembelajaran pada matakuliah Genetika dan tidak ada revisi.

**Kata kunci:** Buku Ajar, Model Pengembangan 4D, Genetika Mendel, dan *Drosophila melanogaster*.

## ABSTRACT

**NAIMATUSSYIFA DAULAY. Development of Research Based Book on Mendel Genetics In Biology Major State University of Medan.** Postgraduate Program State University of Medan. 2019.

The aim of the study was to produce a product in the form of a textbook based on research about Mendel genetics on *Drosophila melanogaster* that are suitable for use in Genetic course. The development model used in this study is the Thiagarajan (4D) development model which consists of define, design, development, and dissemination, but the research phase is only up to development. The developed textbooks are validated based on four criteria namely material/content, language, instructional media design, and layout design. The test subjects were genetics material expert, learning, layouts, and the response of students who learned genetic. The results of product validation by material experts amounted to 95.4% in the category of “Very Good”, the language expert was 84.37% in the category “Very Good”, the learning design expert was 94.4% in the category “Very Good”, expert layout was 85% in the category “Very Good” and according to the students individually, small group, and limited group sequentially are 91.1%, 83.4%, and 85.8% with “Very Good” category. It can be concluded that the product can be used as an additional textbook in learning activities in the Genetic course and there is no revision.

**Key words:** Textbook, 4D Development Model, Mendel Genetic, and *Drosophila melanogaster*.

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