

## ABSTRAK

**ANGGI WULAN SARI.** Pengembangan Media Pembelajaran Komik Digital Biologi pada Materi Sistem Peredaran Darah Manusia Untuk Siswa Kelas XI IPA SMA. Tesis. Program Pascasarjana Universitas Negeri Medan. Juli 2021.

Penelitian ini bertujuan untuk: Mengembangkan media pembelajaran komik digital biologi mengetahui tingkat efektivitas media komik digital biologi pada materi sistem peredaran darah manusia Kelas XI terhadap hasil belajar siswa. Metode yang digunakan adalah Research and Development (R&D) yang diadaptasi dari model Borg and Gall. Hasil penelitian menunjukkan bahwa tingkat kelayakan media pembelajaran yang dikembangkan setelah dilakukan validasi dinyatakan valid yaitu nilai dari ahli materi 94%, ahli instruksional pembelajaran 89%, ahli *layout* 94%. Media yang diujicobakan kepada siswa memiliki kriteria sangat baik yaitu persentase skor rata-ratanya yaitu 88%. Sedangkan tingkat kelayakan yang diperoleh dari guru adalah 90% dengan kriteria sangat baik. Keefektifan media komik digital dilihat dengan nilai *n gain* yaitu 0,57 dengan kategori sedang. Hasil belajar siswa meningkat dibuktikan dengan uji *paired sample t test* menunjukkan nilai *sig. (2-tailed)*  $0,000 < 0,05$ , maka komik digital efektif dalam meningkatkan hasil belajar siswa dengan perbedaan nilai *pretest* dan *posttest* secara signifikan.

Kata Kunci : Komik Digital Biologi, Sistem Peredaran Darah Manusia, Hasil Belajar.

## ABSTRACT

**ANGGI WULAN SARI.** Development of Biology Digital Comics Learning Media on Human Circulatory System for High School XI Students. Thesis. Medan: Postgraduate school of Universitas Negeri Medan . Juli 2021.

The aims of this study were to develop the biology digital comics and to determine the eligibility as well as the effectivity level of the biology digital comics as the learning media of human circulatory system for the eleventh graders on students' learning outcomes. The method applied a Research and Development (R&D) adapted from Borg and Gall model. The results showed that the eligibility level of the biology digital comics developed was valid; from the assessment of material experts was 94%, the instructional design experts was 89%, and the layout experts was 94%. The developed learning media that was tested on students had a very good category; the average score was 88%. Meanwhile, the eligibility level obtained from the teachers was 90% in a very good category and the effectiveness level of biology digital comics with the N-Gain value of 0.57 in a moderate category. Students' learning outcomes increased as evidenced by the paired sample t-test showing the significance value of  $0.000 < 0.05$ , meaning that there was a significant difference between the pretest and posttest results through the biology digital comics.

Keywords: Biology Digital Comics, Human Circulatory System, learning outcomes.