

**PENGEMBANGAN E-KOMIK BERBANTUAN MODEL
PEMBELAJARAN *CONTEXTUAL TEACHING LEARNING* PADA
MUATAN MATEMATIKA KELAS IV SD NO. 6 KAPAL**

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ABSTRAK

Pembelajaran matematika di sekolah dasar, khususnya pada materi pecahan, masih menghadapi berbagai kendala, seperti kesulitan siswa dalam memahami konsep yang bersifat abstrak, perbandingan pecahan dan rendahnya kemampuan pemecahan masalah. Selain itu, pembelajaran yang masih didominasi metode ceramah dengan penggunaan media konvensional menyebabkan rendahnya motivasi belajar yang berpengaruh pada hasil belajar peserta didik. Penelitian ini bertujuan untuk (1) mendeskripsikan rancangan e-komik berbantuan model Contextual Teaching and Learning (CTL), (2) mengetahui validitas e-komik yang dikembangkan, dan (3) mengetahui efektivitas e-komik pada pembelajaran matematika materi pecahan. Penelitian ini merupakan penelitian pengembangan menggunakan model ADDIE yang meliputi tahap analisis, perancangan, pengembangan, implementasi, dan evaluasi. Subjek penelitian uji efektivitas media adalah seluruh siswa kelas IV sekolah dasar, subjek penelitian uji coba perorangan adalah tiga siswa kelas IV SD, dan subjek penelitian uji coba kelompok kecil adalah 9 orang siswa kelas IV SD yang memiliki tingkat kognitif rendah, sedang, dan tinggi, dan subjek uji validitas media yaitu 1 ahli desain instruksional, 1 ahli media pembelajaran, dan satu ahli isi pelajaran. Teknik pengumpulan data meliputi wawancara, observasi, angket, dan tes, dengan analisis data deskriptif kuantitatif, dan statistik inferensial. Hasil penelitian menunjukkan bahwa e-komik valid dan layak diimplementasikan kepada seluruh siswa kelas IV. Uji validitas memperoleh kategori sangat baik dari ahli isi (95,83%), ahli desain instruksional (95,38%), ahli media pembelajaran (93,75%), uji perorangan (99,16%), dan uji kelompok kecil (94,72%). Uji efektivitas menggunakan uji-t sampel berpasangan menunjukkan nilai $t_{hitung} = 4,894$ dan $t_{tabel} = 1,703$ pada taraf signifikansi 5%, sehingga $t_{hitung} > t_{tabel}$. Dengan demikian, e-komik berbantuan model pembelajaran *Contextual Teaching Learning* dinyatakan layak dan efektif dalam meningkatkan pemahaman siswa pada pembelajaran matematika materi pecahan sehingga dapat meningkatkan hasil belajar siswa.

Kata Kunci: Pengembangan, E-Komik, *Contextual Teaching Learning*,
Matematika, Pecahan

ABSTRACT

Mathematics learning in elementary schools, especially in fractions, still faces various obstacles, such as students' difficulties in understanding abstract concepts, fraction comparisons, and low problem-solving skills. In addition, learning that is still dominated by lecture methods with the use of conventional media causes low learning motivation which affects student learning outcomes. This study aims to (1) describe the design of e-comics assisted by the Contextual Teaching and Learning (CTL) model, (2) determine the validity of the developed e-comics, and (3) determine the effectiveness of e-comics in learning mathematics on fractions. This study is a development research using the ADDIE model which includes the stages of analysis, design, development, implementation, and evaluation. The subjects of the media effectiveness test were all fourth-grade elementary school students, the subjects of the individual trial were three fourth-grade elementary school students, and the subjects of the small-group trial were 9 fourth-grade elementary school students who had low, medium, and high cognitive levels, and the subjects of the media validity test were 1 instructional design expert, 1 learning media expert, and one subject content expert. Data collection techniques include interviews, observations, questionnaires, and tests, with quantitative descriptive data analysis, and inferential statistics. The results of the study indicate that e-comics are valid and feasible to be implemented to all fourth grade students. The validity test obtained a very good category from content experts (95.83%), instructional design experts (95.38%), learning media experts (93.75%), individual tests (99.16%), and small group tests (94.72%). The effectiveness test using paired sample t-test showed a value of $t_{\text{count}} = 4,894$ and $t_{\text{table}} = 1,703$ at a significance level of 5%, so that $t_{\text{count}} > t_{\text{table}}$. Thus, e-comics assisted by the Contextual Teaching Learning learning model are declared feasible and effective in improving students' understanding of mathematics learning on fractions so that they can improve student learning outcomes.

Keywords: Development, E-Comic, Contextual Teaching Learning, Mathematics, Fractions