ABSTRAK

ANISA TRI LATIFAH. 2023. **Pengembangan Media Komik Digital berbasis Canva untuk Meningkatkan Kemampuan Penalaran Proporsional Peserta Didik SMP.** Program Studi Magister Pendidikan Matematika. Program Pascasarjana. Universitas Siliwangi.

Penelitian ini bertujuan untuk mendeskripsikan prosedur pengembangan media komik digital berbasis *canva* serta menganalisis efektivitas media komik digital berbasis *canva* dan peningkatan kemampuan penalaran proporsional. Subjek dalam penelitian ini adalah 1 orang guru matematika, 5 orang peserta didik kelas VIII diluar kelas eksperimen, 2 orang ahli materi, 2 orang ahli media, dan 32 orang peserta didik yang diambil dengan teknik *purposive sampling* dari kelas VII-D SMP Negeri 1 Salawu. Penelitian ini merupakan penelitian dan pengembangan (*Research and Development*) dengan menggunakan model pengembangan ADDIE melalui tahap *Analysis, Design, Development, Implementation,* dan *Evaluation* untuk mendapatkan produk yang valid dan praktis. Teknik pengumpulan data pada penelitian ini yaitu melalui observasi, wawancara terstruktur, angket dan tes kemampuan penalaran proporsional. Instrumen yang digunakan dalam penelitian ini adalah lembar validasi ahli materi, lembar validasi ahli media, angket respon pengguna, dan soal tes kemampuan penalaran proporsional. Berdasarkan hasil penelitian dan pengembangan, pada tahap *Analysis* peneliti melakukan analisis kebutuhan, analisis kurikulum, analisis materi, analisis tujuan pembelajaran, dan analisis karakteristik peserta didik. Pada tahap *design* peneliti membuat peta konsep materi, *flowchart, storyboard,* mengumpulkan referensi, merancang instrumen tes, menyusun lembar validasi ahli materi dan ahli media, serta membuat angket respon pengguna. Pada tahap *development* peneliti menghasilkan produk yang telah dirancang, melakukan validasi kepada ahli materi dan ahli media dengan hasil validasi berada pada kategori "sangat layak digunakan" serta melakukan uji coba produk kepada 1 orang guru matematika dan 5 orang peserta didik di luar kelas eksperimen dan memperoleh respon positif dengan kategori "sangat baik". Pada tahap *implementation,* media diterapkan dalam kegiatan pembelajaran kepada 32 orang peserta didik. Pada tahap *evaluation* diketahui nilai rata-rata kemampuan penalaran proporsional peserta didik pada *posttest* lebih besar dari nilai rata-rata kemampuan penalaran proporsional peserta didik pada *pretest.* Respon pengguna terhadap media komik digital berbasis *canva* positif dengan kategori "baik". Hasil pengujian *Effect Size* (ES) diperoleh kategori "*Strong Effect*". Hasil dari analisis N-*Gain score* diperoleh kategori "sedang".

Kata Kunci: kemampuan penalaran proporsional, komik digital, media pembelajaran

ABSTRACT

ANISA TRI LATIFAH. 2023. **Development of Canva-based Digital Comic Media to Improve Middle School Students' Proportional Reasoning Ability.** Mathematics Education Master's Study Program. Graduate program. Siliwangi University.

This research aims to describe the procedures for developing Canva-based digital comic media and analyze the effectiveness of Canva-based digital comic media and increasing proportional reasoning abilities. The subjects in this research were 1 mathematics teacher, 5 class VIII students outside the experimental class, 2 material experts, 2 media experts, and 32 students taken using purposive sampling technique from class VII-D of SMP Negeri 1 Salawu . This research is research and development (Research and Development) using the ADDIE development model through the Analysis, Design, Development, Implementation and Evaluation stages to obtain valid and practical products. Data collection techniques in this research are through observation, structured interviews, questionnaires and proportional reasoning ability tests. The instruments used in this research were material expert validation sheets, media expert validation sheets, user response questionnaires, and proportional reasoning ability test questions. Based on the results of research and development, at the Analysis stage the researcher carried out needs analysis, curriculum analysis, material analysis, learning objectives analysis, and analysis of student characteristics. At the design stage, researchers create material concept maps, flowcharts, storyboards, collect references, design test instruments, compile validation sheets for material experts and media experts, and create user response questionnaires. At the development stage, the researchers produced a product that had been designed, validated it with material experts and media experts with the validation results being in the "very suitable for use" category and carried out a product trial on 1 mathematics teacher and 5 students in outside the experimental class and received a positive response in the "very good" category. At the implementation stage, the media was applied in learning activities to 32 students. At the evaluation stage, it was discovered that the average value of students' proportional reasoning abilities in the posttest was greater than the average value of students' proportional reasoning abilities in the pretest. User response to Canva-based digital comic media is positive in the "good" category. The Effect Size (ES) test results obtained in the "Strong Effect" category. The results of the N-Gain score analysis obtained the "medium" category.

Keywords: proportional reasoning ability, digital comics, learning media