

ABSTRAK

LIA NUR INDAH PUTRIYANNAH. 2024. **Pengembangan Media Pembelajaran berbasis Android Berbantuan *Smart Apps Creator* untuk Mengeksplor Kemampuan Berpikir Kritis Peserta Didik.** Program Studi Magister Pendidikan Matematika. Program Pascasarjana. Universitas Siliwangi.

Tujuan dari penelitian ini adalah untuk mendeskripsikan prosedur pengembangan dan kualitas efektivitas dari penggunaan media pembelajaran berbasis android berbantuan *Smart Apps Creator* terhadap kemampuan berpikir kritis peserta didik pada materi bangun ruang sisi datar. Subjek dalam penelitian ini adalah 2 orang ahli materi, 2 orang ahli media, 3 orang guru matematika dan 32 orang peserta didik kelas VIII SMP Negeri 20 Tasikmalaya Metode yang digunakan yaitu *Research & Development* (R&D) dengan model pengembangan ADDIE (*Analysis, Design, Development, Implementation, and Evaluation*). Teknik pengumpulan data yang dilakukan dalam penelitian ini adalah observasi, wawancara, tes dan angket. Instrument yang digunakan yaitu soal tes kemampuan berpikir kritis, lembar validasi ahli materi dan ahli media, angket respon peserta didik dan guru. Berdasarkan penelitian dan pengembangan, pada tahap *analysis* peneliti melakukan analisis kebutuhan, analisis kurikulum, analisis materi, dan analisis karakteristik peserta didik. Pada tahap *design* peneliti membuat *flowchart*, *storyboard*, mengumpulkan bahan, merancang instrument tes, Menyusun lembar validasi ahli materi dan ahli media, serta membuat angket respon pengguna. Pada tahap *development* dihasilkan suatu media pembelajaran dalam bentuk aplikasi kemudian melakukan validasi kepada ahli materi dan ahli media dengan hasil validasi berada pada kategori “sangat layak digunakan” serta melakukan uji coba produk kepada 3 orang guru matematika dan 5 orang peserta didik dan memperoleh respon positif. pada tahap *implementation* media diterapkan dalam kegiatan pembelajaran kepada 32 orang peserta didik. Pada tahap *evaluation* diketahui nilai rata-rata *posttest* kemampuan berpikir kritis peserta didik lebih besar dari nilai rata-rata *pretest* kemampuan berpikir kritis peserta didik. Respon pengguna terhadap media pembelajaran ini menunjukkan hasil positif dengan kategori sangat baik. Selain itu, uji *effect size* terhadap kemampuan berpikir kritis menunjukkan kategori *strong effect*. Sehingga dapat disimpulkan bahwa media pembelajaran berbasis android berbantuan *Smart Apps Creator* efektif terhadap kemampuan berpikir kritis peserta didik.

Kata Kunci: kemampuan berpikir kritis, media pembelajaran, android, *smart apps creator*

ABSTRACT

LIA NUR INDAH PUTRIYANNAH. 2024. **Development of Android-Based Learning Media Assisted by Smart Apps Creator to Explore Students' Critical Thinking Skills**. Mathematics Education Master's Study Program. Graduate program. Siliwangi University.

The purpose of this research is to describe the development procedures and the effectiveness quality of using Android-based learning media assisted by Smart Apps Creator on students' critical thinking skills in the subject of flat-sided space figures. The subjects in this study are 2 subject matter experts, 2 media experts, 3 mathematics teachers, and 32 eighth-grade students from SMP Negeri 20 Tasikmalaya. The method used is Research & Development (R&D) with the ADDIE development model (Analysis, Design, Development, Implementation, and Evaluation). The data collection techniques used in this research are observation, interviews, tests, and questionnaires. The instruments used include critical thinking ability test questions, validation sheets by subject matter experts and media experts, and response questionnaires for students and teachers. Based on research and development, in the analysis stage, the researcher conducts needs analysis, curriculum analysis, material analysis, and learner characteristic analysis. In the design stage, the researchers created flowcharts, storyboards, gathered materials, designed test instruments, prepared validation sheets for subject matter experts and media experts, and created user response questionnaires. In the development stage, an educational media in the form of an application was produced, followed by validation by subject matter experts and media experts, with the validation results falling into the "very feasible to use" category. Additionally, product trials were conducted with 3 mathematics teachers and 5 students, yielding positive responses. at the implementation stage, the media was applied in learning activities to 32 students. At the evaluation stage, it was found that the average posttest score of students' critical thinking skills was higher than the average pretest score of students' critical thinking skills. User responses to this learning media show positive results with a very good category. In addition, the effect size test on critical thinking skills shows a strong effect category. Thus, it can be concluded that Android-based learning media assisted by Smart Apps Creator is effective in enhancing students' critical thinking skills.

Keywords: critical thinking skills, learning media, android, *smart apps creator*