

ABSTRAK

Rini Mariani. 2021. *Pengembangan Media Mobile Learning dengan Pendekatan Saintifik Berbasis Keterampilan Berpikir Kritis Matematis Siswa kelas XI Madrasah Aliyah.* Tesis, Program Pascasarjana, Universitas Jambi. Pembimbing: (I) Drs. Jefri Marzal, M. Sc, D.I.T , (II) Dr. Zurweni, M.Si.

Kata Kunci: Media Mobile Learning, Keterampilan Berpikir Kritis Matematis, Pendekatan Saintifik.

Penelitian ini merupakan jenis penelitian pengembangan (R&D). Penelitian ini bertujuan untuk (1) mendeskripsikan bagaimana prosedur pengembangan dan hasil produk dari media mobile learning menggunakan aplikasi *Smart Apps Creator* (SAC) 3 pada materi turunan di kelas XI MIA ; (2) mendeskripsikan kelayakan media *mobile learning* berbasis keterampilan berpikir kritis pada materi turunan ditinjau dari aspek kevalidan, kepraktisan dan keefektifan. Untuk mencapai tujuan tersebut, dikembangkan media *mobile learning* berbasis keterampilan berpikir kritis matematis dengan model pengembangan Lee dan Owens. Media ini divalidasi oleh ahli dan dinyatakan valid serta layak diujicobakan pada kelompok kecil dan kelompok besar. Berdasarkan tanggapan dan respon positif dari guru dan siswa, diperoleh kepraktisan media dengan kategori sangat praktis. Hasil angket penilaian guru diperoleh persentase 89%, ujicoba kelompok kecil 86% serta ujicoba kelompok besar dengan persentase 87,5%. Untuk melihat efektifitas media dilakukan pretest dan post test untuk melihat keterampilan berpikir kritis siswa sebelum dan sesudah penggunaan media. Untuk mengukur keterampilan berpikir kritis siswa digunakan uji n-gain. Berdasarkan hasil uji N-Gain diperoleh hasil dengan kategori sedang. Berdasarkan hasil tersebut, sehingga diperoleh kesimpulan bahwa media *mobile learning* layak digunakan untuk meningkatkan berpikir kritis matematis siswa.

ABSTRACT

Mariani, Rini. 2021. Development of *Mobile learning* Media with Scientific Approach Based on Mathematical Critical Thinking Skills for Class XI Madrasah Aliyah Students. Thesis, Postgraduate Program, Jambi University. Supervisor: (I) Drs. Jefri Marzal, M.Sc, D.I.T, (II) Dr. Zurweni, M.Si.

Keywords: Media Mobile Learning, mathematical critical thinking skills, scientific approach

This research is a type of development research (R&D). This study aims to (1) describe how the development procedures and product results from mobile learning media using the Smart Apps Creator (SAC) 3 application on derived material in class XI MIA; (2) describe the feasibility of mobile learning media based on critical thinking skills on derived material in terms of aspects of validity, practicality and effectiveness. To achieve this goal, a mobile learning media based on mathematical critical thinking skills was developed using the Lee and Owens development model. This media was validated by experts and declared valid and feasible to be tested in small groups and large groups. Based on the positive responses and responses from teachers and students, the practicality of the media was obtained with a very practical category. The results of the teacher assessment questionnaire obtained a percentage of 89%, small group trials 86% and large group trials with a percentage of 87.5%. To see the effectiveness of the media, pretest and posttest were conducted to see students' critical thinking skills before and after using the media. To measure students' critical thinking skills, the n-gain test is used. Based on the results of the N-Gain test, the results are in the medium category. Based on these results, it can be concluded that mobile learning media is feasible to use to improve students' mathematical critical thinking.