

ABSTRAK

AGUSTINA MIRANDA: Pengembangan Media Pembelajaran Interaktif Berbasis *Android* dengan *SAC* Terintegrasi Model *PBL* Untuk Meningkatkan Kemampuan Berpikir Kritis Siswa Pada Materi Suhu dan Kalor. **Program Studi Pendidikan Fisika FKIP Universitas Malikussaleh, 2024.**

Penelitian ini bertujuan untuk mengembangkan produk media pembelajaran berbasis *android* dengan *Smart Apps Creator* terintegrasi model *Problem Based Learning* yang layak dan praktis digunakan dalam proses pembelajaran dan dapat meningkatkan kemampuan berpikir kritis siswa.

Penelitian ini merupakan penelitian pengembangan menggunakan model ADDIE dengan beberapa tahapannya yaitu *Analysis* (analisis), *Design* (desain), *Development* (pengembangan), *Implementation* (implementasi), dan *Evaluation* (evaluasi). Pada tahap analisis dilakukan analisis kebutuhan dan analisis materi pembelajaran. Tahap desain merancang kerangka awal media pembelajaran berbasis *android*, membuat lembar angket validasi dan angket praktisi. Tahap pengembangan media pembelajaran berbasis *android* dilakukan validasi oleh 2 validator. Kemudian dilakukan uji coba kepraktisan oleh seorang guru fisika dan uji coba skala terbatas oleh beberapa siswa. Tahap implementasi, produk yang telah dinyatakan valid dan praktis akan diimplementasikan secara skala besar kepada siswa dalam proses pembelajaran. Tahapan evaluasi berupa hasil keseluruhan dari semua tahapan yang digunakan untuk pedoman penyempurnaan produk media.

Hasil penelitian media pembelajaran berbasis *android* berhasil dikembangkan dan dinyatakan layak digunakan dalam proses pembelajaran dengan skor ahli media memperoleh persentase rata-rata 82,5% dan ahli materi 81,6% kategori sangat layak. produk media pembelajaran berbasis *android* sangat praktis digunakan dengan perolehan nilai presentase skor rata-rata hasil praktisi guru sebanyak 98,32% dengan kategori sangat praktis dan perolehan nilai angket respon siswa pada skala terbatas dengan presentase 86,7% berada pada kategori sangat praktis. Hasil uji N-Gain mendapatkan nilai sebesar 0,69 dengan kategori sedang. Hal ini, membuktikan adanya peningkatan kemampuan berpikir kritis siswa setelah menggunakan media pembelajaran berbasis *android* dengan *Smart Apps Creator* terintegrasi model *Problem Based Learning*.

Kata Kunci: Media pembelajaran, *android*, *Smart Apps Creator*, *Problem Based Learning*, kemampuan berpikir kritis.

ABSTRACT

AGUSTINA MIRANDA: Development of Android-Based Interactive Learning Media with *SAC* Based on *PBL Model* to Improve Students' Critical Thinking Skills on Temperature and Heat Materials. **Physics Education Study Program, FKIP Malikussaleh University, 2024.**

This research aims to develop an android-based learning media product with *Smart Apps Creator* based on *the Problem Based Learning* model that is feasible and practical to use in the learning process and can improve students' critical thinking skills.

This research is a development research using the ADDIE model with several stages, namely *Analysis, Design, Development, Implementation, and Evaluation*. At the analysis stage, needs analysis and analysis of learning materials are carried out. The design stage designs the initial framework of android-based learning media, makes validation questionnaires and practitioner questionnaires. The android-based learning media development stage was validated by 2 validators. Then a practicality test was carried out by a physics teacher and a limited-scale trial by several students. In the implementation stage, products that have been declared valid and practical will be implemented on a large scale to students in the learning process. The evaluation stage is in the form of the overall results of all stages used for media product improvement guidelines.

The results of the research on android-based learning media were successfully developed and declared suitable for use in the learning process with an average percentage of 82.5% for media experts and 81.6% for material experts in the very feasible category. Android-based learning media products are very practical to use with The average score percentage of teacher practitioner results was 98.32% in the very practical category and the student response questionnaire score on a limited scale with a percentage of 86.7% was in the very practical category. The results of the N-Gain test received a score of 0.69 in the medium category. This proves that there is an improvement in students' critical thinking skills after using android-based learning media with *Smart Apps Creator* based on *the problem-based learning model*.

Keywords: Learning media, *android, Smart Apps Creator, Problem Based Learning*, critical thinking skills.