

## ABSTRAK

**Julianse Lydia Nababan, NIM 4183131027 (2022). Development of Android-Based Learning as Interactive Learning Media in Reaction Rate Material Class XI SMAN 12 Medan**

Penelitian ini bertujuan untuk: (1) mengetahui kelayakan media pembelajaran berbasis *android* yang telah dikembangkan berdasarkan BSNP terintegrasi *android*, (2) mengetahui apakah hasil belajar siswa yang diajarkan menggunakan media pembelajaran interaktif berbasis *android* yang telah dikembangkan lebih tinggi dari nilai Kriteria Ketuntasan Minimal (KKM) pada materi laju reaksi. Penelitian ini merupakan penelitian pengembangan (*Research and Development*) dengan model ADDIE (*Analysis, Design, Development, Implementation and Evaluation*) yang dilaksanakan pada semester gasal tahun ajaran 2021/2022 di SMAN 12 Medan. Pada tahap implementasi, digunakan desain penelitian *one-group pre-test post-test design* dengan pengambilan sampel menggunakan teknik *cluster random sampling* yang terdiri dari satu kelas IPA SMAN 12 Medan. Hasil validasi media berbasis *android* yang diperoleh untuk kelayakan isi 3,75; kelayakan penyajian 3,83; kelayakan bahasa 4, dan kelayakan kegrafisan 3,83. Secara keseluruhan, media pembelajaran berbasis *android* memperoleh tingkat kelayakan sebesar 3,85, dengan kategori sangat layak. Selanjutnya media pembelajaran berbasis *android* pada materi laju reaksi diimplementasikan dalam proses pembelajaran. Nilai KKM dan rata-rata nilai *post-test* siswa secara berturut-turut adalah 78 dan 85,6. Data yang diperoleh dianalisis menggunakan uji t pihak kanan. Hasil analisis data adalah thitung berada pada daerah signifikan,  $t_{hitung} > t_{tabel} = 4,146 > 1,711$ . Sehingga  $H_a$  diterima dan  $H_0$  ditolak, maka dapat disimpulkan bahwa hasil belajar peserta didik yang diajarkan menggunakan media pembelajaran interaktif berbasis *android* lebih tinggi dari nilai KKM.

**Kata Kunci:** media pembelajaran *android*, interaktif, hasil belajar, laju reaksi,



## ABSTRACT

**Julianse Lydia Nababan, ID Number 4183131027 (2022). Development of Android-Based Learning as Interactive Learning Media in Reaction Rate Material Class XI SMAN 12 Medan**

This aims of this study are to: (1) find out whether android-based interactive learning media that developed have met the feasibility standards based on the android-based integrated BSNP, (2) find out whether student learning outcomes taught using android-based interactive learning media that have been developed higher than the Minimum Completeness Criteria (KKM) score on the reaction rate material. This research is a Research and Development with the ADDIE (Analysis, Design, Development, Implementation and Evaluation) model which was carried out in the odd semester of the 2021/2022 academic year at SMAN 12 Medan. At the implementation stage, a one-group pre-test post-test design was used, with sampling using a cluster random sampling technique consisting of one XI science class at SMAN 12 Medan. The results of the validation of the android-based media obtained for the feasibility of the contents is 3.75; display feasibility is 3.83; language feasibility is 4, and graphic feasibility is 3.83. Overall, android-based learning media obtained a feasibility level of 3.85, with a very feasible category. Furthermore, android-based learning media on the reaction rate material is implemented in the learning process. The KKM scores and the students' average post-test scores were 78 and 85.6, respectively. The data obtained were analyzed using the right-hand t-test. The result of data analysis is that  $t_{count}$  is in the significant area,  $t_{count} > t_{table} = 4.146 > 1.711$ . So that  $H_a$  is accepted and  $H_0$  is rejected, it can be concluded that the learning outcomes of students who are taught using Android-based interactive learning media are higher than the KKM value.

**Keywords:** android-based learning media, interactive, learning outcomes, reaction rate

