

ABSTRAK

M.CHAIRUL ILHAM. Pengembangan Multimedia Interaktif Gamifikasi Berbasis *Android* Pada Materi Kimia Kelas X Semester Genap. Tesis. Medan: Program Pasca Sarjana Universitas Negeri Medan, Desember 2023.

Penelitian ini bertujuan untuk mengembangkan multimedia pembelajaran gamifikasi berbasis *android*, penilaian hasil belajar, motivasi belajar, korelasi motivasi terhadap hasil belajar dan respon siswa terhadap penggunaan multimedia yang dikembangkan pada siswa kelas X MAS PAB 2 Helvetia. Populasi penelitian yang digunakan yaitu seluruh siswa kelas X MAS PAB 2 Helvetia. Teknik pengambilan sampel dalam penelitian ini adalah *purposive sampling*. Penelitian ini termasuk penelitian R & D dengan model ADDIE. Pada analisis kebutuhan diperoleh informasi bahwa dibutuhkan proses pembelajaran kimia yang menyenangkan dan pembelajaran masih menggunakan metode ceramah, tanya-jawab dan diskusi serta media pembelajaran berupa *powerpoint*. Hasil analisis media ajar awal diperoleh bahwa media yang digunakan cukup layak, namun dibutuhkan revisi beberapa item. Multimedia yang dikembangkan divalidasi oleh dua orang ahli media, dua orang ahli materi dan dua orang guru kimia menggunakan standar kelayakan BSNP. Hasil dari uji kelayakan multimedia yang dikembangkan diperoleh nilai dengan kategori sangat layak digunakan dalam proses pembelajaran. Penelitian ini menggunakan instrumen tes dan non tes. Data hasil belajar siswa yang diperoleh berdistribusi normal. Sehingga Uji hipotesis dapat dilakukan dengan menggunakan *uji one sample t test*, dengan hasil penelitian $t_{hitung} > t_{tabel}$ artinya hasil belajar siswa setelah diajarkan menggunakan multimedia interaktif gamifikasi berbasis *android* lebih tinggi daripada standar KKM yang ditetapkan sekolah. Selain itu, berdasarkan hasil angket motivasi diperoleh bahwa siswa termotivasi dalam pembelajaran kimia dengan menggunakan multimedia yang dikembangkan. Hasil penelitian korelasi menunjukkan bahwa $r_{hitung} > r_{tabel}$ maka terdapat korelasi yang signifikan antara motivasi belajar terhadap hasil belajar siswa. Kemudian hasil persentase respon siswa yang tergolong kategori sangat baik.

Kata kunci : Android, Gamifikasi, Kimia, Multimedia Interaktif,, Pengembangan



ABSTRACT

M. CHAIRUL ILHAM. Development of Android-Based Interactive Multimedia Gamification in Class X Chemistry Material Even Semester. Thesis. Medan: Medan State University Postgraduate Program, December 2023.

This research aims to develop Android-based gamification learning multimedia, assessment of learning outcomes, learning motivation, correlation of motivation with learning outcomes and student responses to the use of multimedia developed for class X MAS PAB 2 Helvetia students. The research population used was all students of class X MAS PAB 2 Helvetia. The sampling technique in this research is purposive sampling. This research includes R & D research with the ADDIE model. In the needs analysis, information was obtained that there was a need for a fun chemistry learning process and learning that still used lecture, question and answer and discussion methods as well as learning media in the form of PowerPoint. The results of the initial teaching media analysis showed that the media used was quite appropriate, but several items needed to be revised. The multimedia developed was validated by two media experts, two material experts and two chemistry teachers using BSNP eligibility standards. The results of the feasibility test for the multimedia developed obtained a score in the category of very suitable for use in the learning process. This research uses test and non-test instruments. The student learning outcomes data obtained were normally distributed. So hypothesis testing can be carried out using the one sample t test, with the research results $t_{count} > t_{table}$ meaning that student learning outcomes after being taught using Android-based interactive multimedia gamification are higher than the KKM standards set by the school. Apart from that, based on the results of the motivation questionnaire, it was found that students were motivated in learning chemistry using the developed multimedia. The results of correlation research show that $r_{count} > r_{table}$ means there is a significant correlation between learning motivation and student learning outcomes. Then the results of the percentage of student responses that are classified as very good.

Keywords: Android, Chemistry, Development, Gamification, Interactive Multimedia.

