

ABSTRAK

Margaretha Br Barus, NIM. 5223151029 (2026). Pengembangan Media Pembelajaran Android Berbasis Gamifikasi pada Materi Analisis Data Kelas X TKJ di SMK Negeri 13 Medan.

Penelitian ini dilatarbelakangi oleh kebutuhan akan media pembelajaran yang dapat mendukung proses pembelajaran Analisis Data secara lebih interaktif dan menarik bagi peserta didik. Proses pembelajaran yang masih terbatas dalam penggunaan media digital mendorong perlunya pengembangan media pembelajaran berbasis Android yang dapat digunakan secara mandiri dan mengintegrasikan unsur gamifikasi. Penelitian ini bertujuan untuk mengembangkan media pembelajaran Android berbasis gamifikasi pada materi Analisis Data, mengetahui tingkat kelayakan media, mengetahui tingkat akseptabilitas peserta didik terhadap media yang dikembangkan, serta mengetahui efektivitas media dalam meningkatkan hasil belajar peserta didik kelas X TKJ di SMK Negeri 13 Medan. Penelitian ini menggunakan metode Research and Development (R&D) dengan model pengembangan ADDIE yang meliputi tahap Analysis, Design, Development, Implementation, dan Evaluation. Subjek penelitian terdiri atas 34 peserta didik kelas X TKJ 2 SMK Negeri 13 Medan. Pengumpulan data dilakukan melalui angket validasi ahli materi dan ahli media, angket akseptabilitas peserta didik, serta tes hasil belajar berupa pretest dan posttest. Data dianalisis menggunakan analisis deskriptif kuantitatif, uji N-Gain, dan One Sample t-Test. Hasil penelitian menunjukkan bahwa media pembelajaran Android berbasis gamifikasi yang dikembangkan memenuhi kriteria Sangat Layak berdasarkan hasil validasi ahli materi dan ahli media. Hasil uji akseptabilitas peserta didik memperoleh persentase sebesar 91,66% dengan kategori Sangat Baik, yang menunjukkan bahwa media dapat diterima dengan sangat baik oleh peserta didik. Pengujian efektivitas menunjukkan nilai rata-rata N-Gain sebesar 0,7833 dengan kategori Tinggi. Hasil One Sample t-Test menunjukkan nilai signifikansi $< 0,001$, yang lebih kecil dari 0,05, sehingga terdapat peningkatan hasil belajar yang signifikan setelah penggunaan media pembelajaran. Dengan demikian, media pembelajaran Android berbasis gamifikasi yang dikembangkan dinyatakan layak digunakan, diterima dengan sangat baik oleh peserta didik, dan efektif dalam meningkatkan hasil belajar pada materi Analisis Data kelas X TKJ di SMK Negeri 13 Medan.

Kata kunci: Media Pembelajaran Android, Gamifikasi, Analisis Data, ADDIE, Hasil Belajar.

ABSTRACT

Margaretha Br Barus, NIM. 5223151029 (2026). *Development of a Gamification-Based Android Learning Media for Data Analysis Material for Grade X TKJ Students at SMK Negeri 13 Medan.*

This research was motivated by the need for learning media that can support the learning process of Data Analysis in a more interactive and engaging way for students. The learning process, which was still limited in the use of digital media, encouraged the development of Android-based learning media that could be used independently and integrated gamification elements. This research aimed to develop a gamification-based Android learning media for Data Analysis material, determine the feasibility of the developed media, determine the level of student acceptability toward the developed media, and determine the effectiveness of the media in improving the learning outcomes of Grade X TKJ students at SMK Negeri 13 Medan. This research employed the Research and Development (R&D) method using the ADDIE development model, which consists of five stages: Analysis, Design, Development, Implementation, and Evaluation. The research subjects consisted of 34 students of Grade X TKJ 2 at SMK Negeri 13 Medan. Data were collected through validation questionnaires administered to material and media experts, a student acceptability questionnaire, and learning outcome tests in the form of pretests and posttests. The data were analyzed using quantitative descriptive analysis, the N-Gain test, and the One-Sample t-Test. The results showed that the developed gamification-based Android learning media met the Very Feasible criteria based on the validation results from material and media experts. The student acceptability test obtained a percentage of 91.66%, categorized as Very Good, indicating that the media was very well accepted by the students. The effectiveness test resulted in an average N-Gain score of 0.7833, which was categorized as High. The One-Sample t-Test showed a significance value of < 0.001 , which was lower than 0.05, indicating a significant improvement in students' learning outcomes after using the learning media. Therefore, the developed gamification-based Android learning media was considered feasible for use, very well accepted by students, and effective in improving learning outcomes in Data Analysis material for Grade X TKJ students at SMK Negeri 13 Medan.

Keywords: Android Learning Media, Gamification, Data Analysis, ADDIE, Learning Outcomes.