

ABSTRAK

Yohan Aji Pratama. Pengembangan Media Pembelajaran Kimia Berbasis Android Terintegrasi Pendekatan Saintifik pada Materi Sifat Koligatif Larutan di SMA. Tesis. Medan: Program Pascasarjana Universitas Negeri Medan, 2021.

Penelitian ini bertujuan untuk mengetahui kelayakan media pembelajaran kimia berbasis android terintegrasi pendekatan saintifik yang telah dikembangkan pada materi sifat koligatif larutan; mengetahui perbedaan peningkatan hasil belajar dan motivasi belajar siswa ditinjau dari media pembelajaran yang digunakan; dan mengetahui perbedaan tingkat motivasi belajar siswa terhadap peningkatan hasil belajar. Penelitian ini termasuk penelitian pengembangan dengan model ADDIE. Populasi dalam penelitian ini seluruh siswa kelas XII IPA SMA di kota Medan T.A 2020/2021. Teknik pengambilan sampel dengan purposive sampling. Sampel penelitian terdiri dari dua kelas yaitu kelas XII Unggulan Tahfidz dan kelas XII Unggulan C masing-masing terdiri dari 26 siswa dan 22 orang siswa. Instrumen penelitian berupa angket berdasarkan BSNP, tes objektif hasil belajar, serta lembar angket motivasi belajar. Teknik analisis data yang digunakan One Way Anova dengan Uji Regresi Linier pada aplikasi SPSS 21. Hasil penelitian menunjukkan bahwa: media pembelajaran kimia berbasis android terintegrasi pendekatan saintifik pada materi sifat koligatif larutan yang telah dikembangkan memperoleh hasil validasi dengan nilai rata-rata 4,6 tergolong dalam kategori sangat layak; ada perbedaan peningkatan hasil belajar siswa yang diajarkan dengan media pembelajaran kimia berbasis android terintegrasi pendekatan saintifik dengan nilai gain sebesar 0,57; ada perbedaan peningkatan hasil belajar siswa yang diajarkan dengan media pembelajaran kimia berbasis android terintegrasi pendekatan saintifik dengan nilai nilai signifikan $0,000 < \alpha (0,05)$; dan terdapat pengaruh motivasi belajar terhadap hasil belajar siswa pada materi sifat koligatif larutan dengan nilai $R = 0,47$ dan koefisien determinasi sebesar 22,1%.

Kata kunci : media pembelajaran, android, motivasi belajar, hasil belajar, sifat koligatif larutan



ABSTRACT

Yohan Aji Pratama. Development of Android-Based Chemical Learning Media Integrated Scientific Approach to Colligative Properties of Solutions in Senior High School. Thesis. Medan: Postgraduate Program at State University of Medan, 2021.

This study aims to determine the feasibility of an Android-based chemical learning media integrated with the scientific approach that has been developed on the colligative properties of the solution; knowing the difference in the increase in learning outcomes and student motivation in terms of the learning media used; and knowing the differences in the level of student motivation to improve learning outcomes. This research includes development research with the ADDIE model. The population in this study were all students of class XII IPA SMA in Medan. The sampling technique was purposive sampling. The research sample consisted of two classes, respectively consisting of 26 students and 22 students. The research instrument was a questionnaire based on BSNP, an objective test of learning outcomes, and a learning motivation questionnaire sheet. The data analysis technique used is One Way Anova with Linear Regression Test in the SPSS 21 application. The results showed that: Android-based chemical learning media integrated scientific approach on the colligative nature of the solution that has been developed obtained validation results with an average value of 4.6 classified in the very decent category; there is a difference in the improvement of student learning outcomes taught by Android-based chemistry learning media integrated scientific approach with a gain value of 0.57; there is a difference in the improvement of student learning outcomes taught with Android-based chemistry learning media integrated scientific approach with a significant value of $0.000 < \alpha$ (0.05); and there is an effect of learning motivation on student learning outcomes in the material colligative properties of the solution with a value of $R = 0.47$ and a coefficient of determination of 22.1%.

Keywords : *chemistry learning media, android, learning outcomes, learning motivation. colligative properties.*