

ABSTRACT

Silvia Darma. 2021. Development of Based Chemical Equilibrium E-module Guided Discovery Learning (GDL) for Class XI SMA / MA Students. Thesis. Universitas Negeri Padang Postgraduate Program.

Based on the results of the needs analysis at the school where the research was conducted, it is known that there are no electronic teaching materials that can be used anytime and anywhere as needed during the current covid-19 pandemic. The objectives of the study were to develop a chemical equilibrium factor e-module based on GDL, determine the validity and practicality of a chemical equilibrium e-module based on a GDL, determine the effect of GDL on learning outcomes, and determine the effect of the e-module on learning outcomes. There are two types of research conducted, namely the educational research design using the plomp model and the meta-analysis type of literature review research. The research subjects were 3 lecturers, 2 chemistry teachers, and 18 high school class XI students. The research was conducted at SMA Negeri 1 Airpura in the semester of January-June. The assessment instruments are validity questionnaires, practicality questionnaires, and 10 reputable international articles. The data obtained from the research instrument were each processed using the Aikens-V data analysis technique, the percentage of practicality, and the effect size. The aikens-V value is 0.87 and the practicality percentage value is 88.95%. Meanwhile, the value of the effect size of GDL on learning outcomes is 1.92 and the effect of e-modules on learning outcomes is 0.85. It can be concluded that the product developed is valid and very practical. While the use of the GDL model and e-module based on a collection of several previous research articles has a very high influence on learning outcomes

Keywords: e-module, chemical equilibrium factor, guided discovery learning (GDL), plomp development model, effect size.

ABSTRAK

Silvia Darma. 2021. Pengembangan E-modul Faktor Kesetimbangan Kimia Berbasis *Guided Discovery Learning* (GDL) untuk Peserta Didik Kelas XI SMA/MA. Tesis. Program Pascasarjana Universitas Negeri Padang.

Berdasarkan hasil analisis kebutuhan di sekolah tempat penelitian dilakukan, diketahui belum tersedianya bahan ajar elektronik yang dapat digunakan kapanpun dan dimanapun seperti yang dibutuhkan pada masa pandemi covid-19 saat ini. Tujuan penelitian adalah untuk mengembangkan e-modul faktor kesetimbangan kimia berbasis GDL, menentukan validitas dan praktikalitas e-modul kesetimbangan kimia berbasis GDL, menentukan pengaruh GDL terhadap hasil belajar, dan menentukan pengaruh e-modul terhadap hasil belajar. Terdapat dua jenis penelitian yang dilakukan yaitu deskriptif penelitian pendidikan dengan menggunakan model plomp dan penelitian kajian kepustakaan jenis meta-analisis. Subjek penelitian adalah 3 orang dosen, 2 orang guru kimia, dan 18 orang siswa kelas XI SMA. Penelitian dilakukan di SMA Negeri 1 Airpura semester januari-juni. Instrumen penilaiannya berupa angket validitas, angket praktikalitas, dan 10 artikel internasional bereputasi. Data yang diperoleh dari instrumen penelitian tersebut masing-masing diolah menggunakan teknik analisis data aikens-V, persentase kepraktisan, dan *effect size*. Nilai aikens-V diperoleh 0,87 dan nilai persentase kepraktisan 88,95%. Sedangkan nilai *effect size* pengaruh GDL terhadap hasil belajar 1,92 dan pengaruh e-modul terhadap hasil belajar 0,85. Dapat disimpulkan bahwa produk yang dikembangkan valid dan sangat praktis. Sedangkan penggunaan model GDL dan e-modul berdasarkan kumpulan beberapa artikel penelitian sebelumnya memiliki pengaruh yang sangat tinggi terhadap hasil belajar.

Kata kunci: e-modul, faktor kesetimbangan kimia, *guided discovery learning* (GDL), model pengembangan plomp, *effect size*.