

ABSTRAK

Aruan, Yolanda NIM 4192431018 (2023). Desain dan Uji Coba E-Modul Kimia Berbasis *Socio Scientific Issues* (SSI) Pada Materi Senyawa Hidrokarbon dan Minyak Bumi

Penelitian ini bertujuan mengembangkan media pembelajaran e-modul berbasis *Socio Scientific Issues* (SSI) pada materi hidrokarbon dan minyak bumi untuk siswa kelas XI SMA berbantuan *flip pdf professional*. Pengembangan e-modul ini untuk mengetahui validitas e-modul dan mengetahui kepraktisan serta respon siswa terhadap e-modul. Penelitian ini menggunakan metode *Research and Development* (R&D) dengan model 4D (*Define-Design-Development-Disseminate*). Hasil penelitian ini diperoleh data kevalidan e-modul menurut ahli materi dan media, kepraktisan menurut guru, Untuk melihat efektifitas, dilakukan uji efektifitas oleh siswa berupa pretest-posttest menggunakan N-Gain dan respon siswa terhadap penggunaan e-modul. Hasil penelitian kevalidan oleh validator ahli materi dan media memperoleh kriteria “Valid” dengan kategori “Sangat Tinggi”. Nilai rata-rata *momen kappa* ahli materi sebesar 0,89 dan ahli media sebesar 0,92. Kepraktisan e-modul terhadap guru memperoleh nilai rata-rata *momen kappa* sebesar 0,98 dengan kategori “Sangat Tinggi”. Uji efektifitas yang dilakukan mendapatkan nilai N-Gain sebesar 0,35 “Sedang”. Sedangkan respon siswa terhadap e-modul memperoleh nilai rata-rata *momen kappa* sebesar 0,89 dengan kategori ”Sangat Tinggi”. Berdasarkan hasil penelitian ini dapat disimpulkan bahwa modul elektronik berbasis *Socio Scientific Issues* (SSI) pada materi hidrokarbon dan minyak bumi layak digunakan dalam pembelajaran.

Kata Kunci: modul elektronik, *socio scientific issues*, momen kappa, n-gain, senyawa hidrokarbon, minyak bumi

ABSTRACT

Aruan, Yolanda NIM 4192431018 (2023). *Design and Testing of Chemical E-Modules Based on Socio Scientific Issues (SSI) on Hydrocarbon and Petroleum Compound Materials*

This study aims to develop e-module learning media based on Socio Scientific Issues (SSI) on hydrocarbons and petroleum materials for class XI high school students with the help of flip pdf professional. The development of this e-module is to determine the validity of the e-module and find out the practicality and student responses to the e-module. This study uses the Research and Development (R&D) method with the 4D model (Define-Design-Development-Disseminate). The results of this study obtained data on the validity of the e-module according to material and media experts, practicality according to the teacher. To see effectiveness, students tested the effectiveness in the form of a pretest-posttest using N-Gain and student responses to the use of the e-module. The results of the validity research by the material and media expert validators obtained the "Valid" criteria in the "Very High" category. The average kappa moment value for material experts is 0.89 and for media experts is 0.92. The practicality of the e-module for teachers obtains an average kappa moment value of 0.98 in the "Very High" category. The effectiveness test carried out obtained an N-Gain value of 0.35 "Medium". Meanwhile, student responses to the e-module obtained an average kappa moment value of 0.89 in the "Very High" category. Based on the results of this study, it can be concluded that the electronic module based on Socio Scientific Issues (SSI) on hydrocarbons and petroleum is appropriate for use in learning.

Keywords: electronic module, socio scientific issues, kappa moment, n-gain, hydrocarbon compounds, petroleum

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