ABSTRAK

PENGEMBANGAN MODUL STOIKIOMETRI BERBASIS REPRESENTASI KIMIA

Oleh
NADHIFA LUTHFIA PUTRI

Penelitian ini bertujuan untuk mengembangkan modul stoikiometri berbasis representasi kimia, mendeskripsikan karakteristik modul stoikiometri berbasis representasi kimia yang dikembangkan, dan mendeskripsikan tanggapan guru dan siswa terhadap modul stoikiometri berbasis representasi kimia yang dikembangkan. Penelitian ini menggunakan desain penelitian dan pengembangan menurut Borg&Gall (1983). Subjek pada penelitian ini adalah modul stoikiometri berbasis representasi kimia. Objek uji pada tahap penelitian dan pengumpulan informasi adalah 3 guru kimia dan 30 siswa kelas XI MIPA dari SMA Negeri 1 Way Jepara, SMA Negeri 1 Seputih Raman, and SMA Negeri 1 Kota Gajah. Objek uji coba lapangan dilakukan pada 3 guru kimia dan 15 siswa kelas XI MIPA SMA Negeri 5 Bandar Lampung. Teknik analisis data dilakukan dengan cara menghitung rata-rata persentase skor tanggapan responden pada angket.

Berdasarkan hasil validasi didapatkan rata-rata persentase pada aspek kesesuaian isi sebesar 93,93%; aspek konstruksi sebesar 100%; aspek keterbacaan sebesar 92,07%; ketiga aspek tersebut berkriteria sangat tinggi dan produk dinyatakan valid. Hasil uji coba lapangan diperoleh rata-rata persentase skor tanggapan guru pada aspek kesesuaian isi sebesar 97,39%; konstruksi sebesar 90,40%; keterbacaan sebesar 93,58%; ketiga aspek tersebut berkrtiteria sangat tinggi. Rata-rata persentase skor tanggapan siswa pada aspek keterbacaan sebesar 92,50%, dan kemenarikan sebesar 95,61% dengan kriteria sangat tinggi. Berdasarkan hal tersebut, maka modul stoikiometri berbasis representasi kimia berkriteria sangat tinggi dan dapat dinyatakan valid.

Kata Kunci : modul, stoikiometri, representasi kimia.

ABSTRACT

DEVELOPEMENT MODULE OF STOICHIOMETRY BASED ON CHEMICAL REPRESENTATION

By

NADHIFA LUTHFIA PUTRI

This research aim to develop the module of stoichiometry based on chemical representation, to describe the characteristics of module based on chemical representation, and to describe the responses of respondents about module based on chemical representation. This research used the design of research and developement by Borg & Gall (1983). Subject of this research is module of stoichiometry based on chemical representation. Object of the research and information collecting is 3 teachers of chemistry and 30 students of 3 senior high schools; they are SMAN 1 Way Jepara, SMAN 1 Seputih Raman, and SMAN 1 Kota Gajah. Object of field testing is 3 chemistry teachers and 15 students of class XI MIPA SMAN 5 Bandar Lampung. The responses of respondents were analyzed by calculating the average percentage score of questionnaire.

Based on the validation result obtained the average percentage on the aspect of adjusted content was 93.93%; construction aspect was 100%; and readability aspect was 92.07%; these three aspects have very high criteria and the product is clearly valid. Field trials were carried out to determine teacher and student responses to the module. The result of field trials obtained the average percentage of response scores' teachers on the aspect of adjusted content was 97.39%; aspect of construction was 90.40%; aspect of readability was 93.58%. These three aspects have very high criteria. The average percentage of student response scores on the readability aspect is 92.50%, and attractiveness is 95.61% with very high criteria. Therefore, the product of this research declared has very high criteria with valid status.

Key words : module, stoichiometry, chemical representation.