

## **ABSTRAK**

### **PENGEMBANGAN MODUL SISTEM PERIODIK UNSUR BERBASIS REPRESENTASI KIMIA**

**Oleh**

**UMMI NUR AINI**

Penelitian ini bertujuan untuk mengembangkan modul sistem periodik unsur berbasis representasi kimia, mendeskripsikan karakteristik modul sistem periodik unsur berbasis representasi kimia, mendeskripsikan tanggapan guru dan siswa terhadap modul sistem periodik unsur berbasis representasi kimia. Penelitian ini menggunakan desain penelitian dan pengembangan Borg and Gall. Subjek pada penelitian ini yaitu modul sistem periodik unsur berbasis representasi kimia. Objek uji pada penelitian dan pengumpulan informasi ini adalah siswa kelas XI dari tiga SMA Negeri di Provinsi Lampung yaitu SMA Negeri 1 Way Jepara, SMA Negeri 1 Kota Gajah, dan SMA Seputih Raman yang terdiri dari 30 siswa. Objek uji coba lapangan awal yaitu 3 guru kimia dan 15 siswa SMAN 1 Way Jepara. Teknik analisis data dilakukan dengan cara menghitung rata-rata persentase skor tanggapan responden pada angket.

Hasil validasi ahli pada aspek kesesuaian isi dengan kurikulum memiliki rata-rata persentase 96,55%; konstruksi 98,33%; keterbacaan 98,48% dengan kriteria sangat tinggi. Hasil uji coba lapangan dilakukan dengan meminta tanggapan guru pada aspek kesesuaian isi dengan kurikulum, konstruksi, dan keterbacaan. Tanggapan siswa pada aspek keterbacaan dan kemenarikan. Hasil tanggapan guru pada aspek kesesuaian isi dengan kurikulum memiliki rata-rata persentase 98,85%; konstruksi 98,33%; keterbacaan 97,97% dengan kriteria sangat tinggi. Hasil tanggapan siswa pada aspek keterbacaan 92,50%; dan kemenarikan 91,21% dengan kriteria sangat tinggi. Berdasarkan hal tersebut, maka modul sistem periodik unsur berbasis representasi kimia valid dan layak digunakan sebagai bahan ajar di sekolah.

Kata kunci : modul, sistem periodik unsur, representasi kimia

## **ABSTRACT**

### **DEVELOPMENT MODULE OF ELEMENT PERIODIC SYSTEMS BASED ON CHEMICAL REPRESENTATION**

By

**UMMI NUR AINI**

This study aims to develop a module of the periodic system of elements based on chemical representations, to describe the characteristics of the periodic system of elements based on chemical representation, to describe the responses of teachers and students to the module of the periodic system of elements based on chemical representations. This study adopted the R&D design of Borg and Gall. The subject of this research is a module of the periodic system of elements based on chemical representations. The test objects in this research and information collection were class XI students from three public high schools in Lampung Province, namely SMA Negeri 1 Way Jepara, SMA Negeri 1 Kota Gajah, and SMA Seputih Raman which consisted of 30 students. The objects of the initial field trial were 3 chemistry teachers and 15 students of SMAN 1 Way Jepara. The data analysis technique was carried out by calculating the average percentage score of the respondents' responses to the questionnaire.

The results of expert validation on the aspect of the suitability of the content with the curriculum have average percentage 96.55%; construction 98.33%; readability 98.48% with very high criteria. After expert validation, several revisions were made to the developed module. Subsequently, field trials were carried out to find out teacher and student responses to the developed module. The results of the field trials were carried out by asking the teacher for feedback on aspects of the suitability of the content with the curriculum, construction, and readability. Student responses on aspects of readability and attractiveness. The results of teacher responses on the aspect of conformity with the curriculum content have an average percentage of 98.85%; construction 98.33%; readability 97.97% with very high criteria. The results of student responses on the aspect of readability are 92.50%; and attractiveness is 91.21% with very high criteria. Based on this, the element periodic system module based on chemical representation is valid and suitable to be used as teaching material in schools.

Key words: module, periodic system of elements, chemical representation