

## ABSTRAK

Penelitian dilakukan untuk merekonstruksi bahan ajar ikatan kimia menggunakan konteks keramik untuk mencapai literasi sains siswa SMA. Penelitian mengacu pada *Model of Educational Reconstruction* (MER) yang dibatasi pada tahap analisis struktur konten dan tinjauan perpektif siswa. Tujuan dari penelitian ini adalah memperoleh gambaran pre-konsepsi siswa dan perspektif saintis terhadap keramik, ikatan kimia dan hubungan keduanya, mengetahui karakteristik bahan ajar ikatan kimia menggunakan konteks keramik yang berbasis literasi sains, dan menemukan penilaian ahli terhadap rancangan bahan ajar ikatan kimia menggunakan konteks keramik yang berbasis literasi sains. Instrumen yang digunakan yaitu pedoman wawancara yang terdiri dari 30 butir pertanyaan, lembar analisis konsep, lembar validasi indikator dan tujuan pembelajaran aspek kognitif dan aspek afektif, lembar validasi analisis konsep ikatan kimia dan keramik, dan lembar validasi rancangan bahan ajar ikatan kimia menggunakan konteks keramik yang berbasis literasi sains. Data penelitian yang diperoleh berupa transkripsi wawancara 10 orang siswa kelas X, hasil analisis konsep, hasil validasi indikator dan tujuan pembelajaran aspek kognitif dan aspek afektif, hasil validasi analisis konsep ikatan kimia dan keramik, dan hasil validasi rancangan bahan ajar ikatan kimia menggunakan konteks keramik yang berbasis literasi sains. Hasil penelitian berupa pre konsepsi siswa terhadap keramik, ikatan kimia, dan hubungan keduanya masih sangat sempit namun 90% memiliki ketertarikan dalam pembelajaran sains menggunakan konteks sehari-hari. Rancangan bahan ajar yang dibuat berdasarkan kesesuaian kompetensi ilmiah Pisa 2012, kurikulum 2013, tingkat kognitif siswa, dan urutan pengajaran dan pembelajaran STL memperoleh nilai CVI sebesar 0,88 setelah divalidasi oleh ahli. Hal ini menunjukkan bahwa bahan ajar yang dihasilkan layak untuk siswa SMA.

## **ABSTRACT**

*The study was conducted to reconstruct the teaching material on chemical bonding using the context of ceramic to reach scientific literacy of high school students. The study refers to the Model of Educational Reconstruction (MER), which is limited at this stage of the structural analysis of the content and review the student perspective. The purpose of this study was to obtain an overview of pre-conceptions students and scientists perspective on ceramics, chemical bonds and relations between them, knowing the characteristics of the teaching materials of chemical bonds using context of ceramics based on scientific literacy, and find an expert assessment of the design chemical bonding teaching material using context of ceramic based on scientific literacy. The instruments used were interview form consisting of 30 of the questions, concept analysis, validation of indicators at cognitive and affective aspects, validation concept analysis of chemical bonding and ceramics, and validation of design chemical bonding teaching materials using the context of ceramic based on scientific literacy. The research data obtained in the form of an interview transcript 10 students of class X, the results of concept analysis, result of validation indicators at cognitive and affective aspects, result of validation concept analysis of chemical bonding and ceramics, and result of validation design chemical bonding teaching materials using the context of ceramic based on scientific literacy. The results of the study in the form of pre-conceptions students of ceramics, chemical bonds, and their relationship was still very narrow, but 90% have an interest in learning science using everyday contexts. The design of instructional materials that are based on the suitability of the scientific competence of Pisa in 2012, the curriculum in 2013, students' cognitive level, and sequence of teaching and learning log STL acquire CVI value of 0.88 after being validated by an expert. This suggests that the teaching materials available for high school students.*