

REKONSTRUKSI BAHAN AJAR IPA BERMUATAN *NATURE OF SCIENCE* PADA TOPIK PEMANASAN GLOBAL DAN PERUBAHAN IKLIM

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ABSTRAK

Penelitian ini bertujuan untuk memperoleh bahan ajar IPA bermuatan *nature of science* (NOS) pada topik pemanasan global dan perubahan iklim yang telah divalidasi. Metode penelitian yang digunakan dalam penelitian ini adalah *mixed methods* menggunakan desain eksploratoris sekuensial dengan mengadaptasi *Model of Educational Reconstruction*. Instrumen yang digunakan yaitu pedoman wawancara, lembar analisis teks, lembar validasi indikator dan tujuan pembelajaran aspek kognitif dan aspek afektif, lembar validasi analisis konsep, lembar validasi bahan ajar, serta lembar uji keterbacaan dan test literasi. Prinsip pengembangan bahan ajar menggunakan urutan pembelajaran Sains dan Teknologi Literasi (STL) dengan mengadaptasi tahap pembelajaran *Chemie im Kontext* (ChiK) serta dilengkapi dengan aspek NOS. Hasil wawancara kepada 10 siswa SMP menunjukkan pre-konsepsi peserta didik yang berbeda dengan perspektif saintis tentang pemanasan global dan perubahan iklim. Hasil validasi bahan ajar memperoleh nilai CVI rata-rata 0,99. Hasil angket respon memperoleh nilai rata-rata 4,46 dalam kategori sangat baik. Hasil uji keterbacaan memperoleh nilai 91,54% dalam kategori sangat mudah sedangkan hasil uji coba menunjukkan terdapat perbedaan nilai literasi sains siswa sebelum dengan sesudah mempelajari bahan ajar berdasarkan perbedaan nilai rata-rata pretest dan posttest.

Kata Kunci: Bahan Ajar, Nature of Science, and Model of Educational Reconstruction

RECONSTRUCTION OF TEACHING MATERIAL OF SCIENCE EMBEDDED SCIENCE TOPICS GLOBAL WARMING AND CLIMATE CHANGE

ABSTRACT

The purpose of this study was to obtain teaching materials on global warming and climate change that have been validated. The method used in this research is mixed method using sequential exploratory design by adapting model of educational reconstruction. The instruments are interview form, text analysis sheet, validation indicators sheet and cognitive aspects of learning objectives and affective aspects, validation concept analysis sheet, validation design teaching materials sheet, readability test and scientific literacy test. The principle of the development of teaching materials using the learning sequence Science and Technology Literacy (STL) by adapting the learning phase Chemie im a context (ChiK) and equipped with NOS aspects. Results of interviews to 10 junior high school students showed a pre-conception of learners with different perspectives of scientists on global warming and climate change. The results of the validation of teaching materials to obtain an average value of CVI is 0,99. Results of the questionnaire responses obtain an average value of 4.46 is excellent category. Results of readability test scores 91.54% is very easy category, while the test results showed there are differences in the value of literacy students before with after studying the teaching materials based on differences in the average value of pretest and posttest.

Keywords : Teaching Material, Nature of Science, And Model of Educational Reconstruction