ABSTRAK

PENGEMBANGAN INSTRUMEN EVALUASI BERBASIS LITERASI SAINS PADA MATERI PERUBAHAN LINGKUNGAN KELAS X

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Penelitian ini dilatarbelakangi dari permasalahan rendahnya kemampuan literasi sains pada peserta didik Indonesia yang didapatkan dari hasil survei *Programme for International Student Assessment* (PISA). Dari hasil analisis kebutuhan diketahui bahwa soal yang dibuat guru rata–rata pada kategori level kognitif rendah serta kurang mengevaluasi kemampuan peserta didik untuk menyimpulkan dan membaca data. Penelitian ini bertujuan untuk mengembangkan, mengetahui kelayakan, dan menganalisis butir soal pada instrumen evaluasi berbasis literasi sains pada materi perubahan lingkungan kelas X.

Penelitian ini termasuk dalam penelitian *Research and Development* dengan model 4D yang pelaksanaannya dengan tiga tahap yaitu *define, design,* dan *development*. Teknik pengumpulan data yaitu wawancara analisis kebutuhan, kuesioner validasi ahli dan kuesioner kepraktisan produk. Hasil penelitian berupa instrumen evaluasi berbasis literasi sains pada materi perubahan lingkungan kelas X yang terdiri dari kisi–kisi, soal, dan rubrik penilaian. Soal terdiri dari 30 butir yaitu 25 butir pilihan ganda dan 5 butir esai. Instrumen evaluasi yang dikembangkan termasuk dalam kategori validitas tinggi atau layak dengan rata–rata 0,913. Hasil analisis butir soal yaitu terdapat 20 butir soal (66,67%) dinyatakan valid dengan koefisien reliabilitas 0,803. Ditinjau dari tingkat kesukaran, butir soal yang tergolong sedang sebanyak 27 (90%) dan mudah sebanyak 3 (10%). Ditinjau dari daya pembeda, butir soal yang tergolong rendah sebanyak 11 (36,67%), cukup 8 (26,67%), baik 8 (26,67%), baik sekali 2 (6,67%), dan negatif 1 (3,33%). Instrumen evaluasi termasuk dalam kategori sangat praktis dengan nilai rata – rata 16,7 (85%). Produk instrumen evaluasi berbasis literasi sains pada materi perubahan lingkungan kelas X layak untuk digunakan.

Kata kunci: literasi sains, instrumen evaluasi, materi perubahan lingkungan, kelayakan, analisis butir soal

ABSTRACT

DEVELOPMENT OF SCIENCE LITERACY-BASED EVALUATION INSTRUMENTS ON ENVIRONMENTAL CHANGES CLASS X MATERIALS

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This research is motivated by the problem of low science literacy skills in Indonesian students obtained from the results of the Program for international student assessmen (PISA) survey. From the results of the needs analysis, it is known that the questions made by teachers are on average in the low cognitive level category and do not evaluate the ability of students to conclude and read data. This study aims to develop, determine the feasibility, and analyze the items on the science literacy-based evaluation instrument on environmental change material class X.

This research is included in Research and Development research with the 4D model which is implemented in three stages, namely define, design, and development. Data collection techniques are needs analysis interviews, expert validation questionnaires, and product practicality questionnaires. The results of the research are in the form of science literacy-based evaluation instruments on class X environmental change material consisting of grids, questions, and assessment rubrics. The question consists of 30 items, namely 25 multiple choice items and 5 essay items. The evaluation instrument developed is included in the high validity category or feasible with an average of 0.913. The results of the item analysis were that there were 20 items (66.67%) declared valid with a reliability coefficient of 0.803. In terms of difficulty level, the items classified as moderate were 27 (90%) and easy were 3 (10%). In terms of distinguishing power, the items classified as low were 11 (36.67%), sufficient 8 (26.67%), good 8 (26.67%), excellent 2 (6.67%), and negative 1 (3.33%). The evaluation instrument was categorized as very practical with an average score of 16.7 (85%). The product of science literacy-based evaluation instruments on class X environmental change material is suitable for use.

Keyword : *science literacy, evaluation instrument, feasibility, Analysis of question items*