

ABSTRAK

PENGEMBANGAN INSTRUMEN ASESMEN KEMAMPUAN BERPIKIR KRITIS SISWA PADA PEMBELAJARAN FISIKA SMA DENGAN MODEL *CREATIVE PROBLEM SOLVING*

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Perlu adanya pengembangan instrumen penilaian kemampuan berpikir kritis siswa dengan model pembelajaran yang tepat. Penelitian ini bertujuan mendeskripsikan karakteristik instrumen asesmen dengan model pembelajaran *creative problem solving*, mendeskripsikan peningkatan kemampuan berpikir kritis siswa, serta mendeskripsikan tanggapan guru dan siswa terhadap implementasi instrumen asesmen. Penelitian dengan desain pengembangan modifikasi model Borg & Gall, dilakukan di SMAN 1 Metro. Analisis data dilakukan secara kuantitatif dan kualitatif. Kesimpulan dari penelitian ini adalah: (1) Karakteristik instrumen, instrumen asesmen terdiri dari dua bagian yaitu, instrumen untuk mengukur ranah psikomotor berupa penilaian unjuk kerja dengan lima indikator berpikir kritis, tujuh sub-indikator berpikir kritis, serta duapuluh sembilan butir aspek yang diukur dan ranah kognitif berupa tes soal uraian dengan empat indikator berpikir kritis, jenis pengetahuan konseptual dan prosedural, serta tujuh soal uraian dengan level kognitif C4, C5, C6, yang dirancang khusus untuk mengukur kemampuan berpikir kritis siswa dengan

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menggunakan model pembelajaran *Creative Problem Solving* (CPS) dengan kriteria: daya beda pada instrumen dengan hasil baik, tingkat kesukaran dengan hasil sukar dan sedang, validitas dengan hasil valid, dan reliabilitas tinggi, validasi ahli materi, konstruksi, dan bahasa dengan hasil baik, serta tingkat keterbacaan baik; (2) Hasil uji *N-gain* dengan indeks gain tinggi dan sedang lebih dari 75%, maka instrumen asesmen dalam pembelajaran efektif meningkatkan kemampuan berpikir kritis siswa; (3) Tanggapan guru dan siswa terhadap instrumen asesmen adalah: (a) sesuai, mudah dan bermanfaat; (b) instrumen baik dan layak digunakan.

Kata kunci: instrumen asesmen, berpikir kritis, pembelajaran fisika SMA, *creative problem solving*

ABSTRACT

THE DEVELOPMENT OF ASSESSMENT INSTRUMENT TOWARDS THE STUDENTS' CRITICAL THINKING ABILITY ON THE HIGH SCHOOL PHYSICS LESSON WITH THE CREATIVE PROBLEM SOLVING MODEL

By

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There have been essentially needs of the assessment instrument development towards the students' critical thinking ability with the appropriate learning models. The aims of this study were to describe characteristics of the instrument assessment with the learning model of creative problem solving, to describe increase of the students' critical thinking skills, as well as to describe the responses of teachers and students towards the implementation of the assessment instrument. This study, using the developed design of modified model Borg & Gall, was conducted in SMAN 1 Metro. The data analysis was done both quantitatively and qualitatively. The conclusion of this study are as follow:

(1) The instrument characteristic, it consists of two parts, namely, instruments for measuring the psychomotor domain in form of the performance test with five indicators of critical thinking, seven sub-indicators of critical thinking, as well as twenty-nine items of aspects that are measured and cognitive domain in form of a test of essay questions with four indicators for critical thinking, the kind of conceptual and procedural knowledge, as well as seven essay questions in the

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cognitive level C4, C5, C6, specifically designed to measure the students' critical thinking skills by using the learning model of Creative Problem Solving (CPS) with the following criteria: good discrimination power, the level of difficulty with the results of difficult and moderate, good validity, high reliability, expert judgment towards the material, construction, good language, as well as in the level of good legibility; (2) The test results of N-gain with the high and moderate gain index are more than 75%, then the assessment instrument in learning effectively improves the students' critical thinking skills; (3) The responses of teachers and students towards the assessment instrument are: (a) Appropriate, easy and rewarding; (b) The instrument is good and properly used.

Keywords: assessment instrument, critical thinking, high school physics lessons, creative problem solving