ABSTRAK

PENGEMBANGAN INSTRUMEN MULTIPLE CHOICE REASONING TERBUKA BERBASIS HOTS PADA MATERI GERAK HARMONIK T.P. 2020/2021.

Penelitian ini mengembangkan instrumen *multiple choice reasoning* terbuka berbasis HOTS *(High Order Thinking Skills)* untuk mengukur kemampuan berpikir tingkat tinggi siswa kelas X SMAS Citra Harapan pada materi gerak harmonik. Tujuan penelitian ini adalah mengembangkan instrumen *multiple choice reasoning* terbuka berbasis HOTS dengan pendekatan literasi sains, menguji validitas dan reliabilitas instrumen berbasis HOTS, menguji daya beda dan tingkat kesukaran instrumen HOTS serta mengukur kemampuan berpikir tingkat tinggi siswa kelas X pada materi gerak harmonik. Jenis penelitian yang digunakan adalah *(R&D)* oleh *Borg and Gall*. Instrumen HOTS yang dikembangkan terdiri dari tingkatan kognitif menganalisis, mengevaluasi dan mengkreasi. Instrumen HOTS telah diuji validitas isi dan empiris menghasilkan 10 butir soal dinyatakan valid. Instrumen dinyatakan reliabel dengan . Hasil kemampuan berpikir tingkat tinggi siswa secara keseluruhan pada kategori sangat kurang sebesar 1,59%, kategori kurang sebesar 36,5% kategori cukup sebesar 58,73%, dan kategori baik sebesar 3,17%..

Kata Kunci: HOTS, Instrumen *Multiple Choice Reasoning* Terbuka, Literasi Sains.

ABSTRACT

DEVELOPMENT OF AN OPEN HOTS-BASED MULTIPLE CHOICE REASONING INSTRUMENT ON HARMONIC MOTION MATERIAL T.P. 2020/2021.

This study developed an open multiple choice reasoning instrument with a scientific literacy learning approach based on HOTS (High Order Thinking Skills) to measure the high-order thinking skills of class X SMAS Citra Harapan students on harmonic motion. The purpose of this study was to develop an open HOTS-based multiple choice reasoning instrument with a scientific literacy approach, to test the validity and reliability of HOTS-based instruments, to test the differential power and difficulty level of HOTS instruments and to measure the high-level thinking skills of class X students in harmonic motion material. The type of research used is (R&D) by Borg and Gall. The HOTS instrument developed consists of the cognitive levels of analyzing, evaluating and creating. The HOTS instrument has been tested for content and empirical validity resulting in 10 items being declared valid. The instrument is declared reliable with . The results of students' high-order thinking skills as a whole were in the very poor category of 1.59%, the less category was 36.5%, the sufficient category was 58.73%, and the good category was 3.17%.

Keywords: HOTS, Open Multiple Choice Reasoning Instrument, Scientific Literacy.