

## ABSTRAK

### Feny Mora NIM 4173321018 (2017). Pengembangan Tes Objektif Pengetahuan Konseptual Fisika Pada Materi Optik Geometri SMA.

Penelitian pengembangan tes objektif ini bertujuan untuk mengembangkan tes objektif pengetahuan konseptual fisika pada materi Optik Geometri di SMA yang memenuhi tes yang baik standar kualifikasi, meliputi aspek validitas, reliabilitas, tingkat kesukaran, daya pembeda dan efektivitas pengecoh. Jenis penelitian ini adalah pengembangan penelitian atau *Research and Development* (R&D), dengan *ADDIE* model. Populasi penelitian ini adalah seluruh siswa SMA Negeri 2 Percut Sei Tuan dengan subjek seluruh siswa kelas XII MIA SMA Negeri 2 Percut Sei Tuan. Adapun instrumen tes yang digunakan didalam penelitian pengembangan adalah tes pilihan berganda yang berjumlah 50 butir soal yang mengukur pengetahuan konseptual. Hasil penelitian pengembangan tes pengetahuan konseptual ini menunjukkan hasil bahwa validitas isi dengan ahli instrumen tes objektif pengetahuan konseptual fisika Materi Optik Geometri di SMA sangat bagus. Hasil validitas uji lapangan luas diperoleh 36 butir soal valid dan 2 soal tidak valid. Hasil reliabilitas 0,851. Hasil tingkat kesukaran 38 soal dengan kategori sedang. Hasil daya Pembeda 28 *item* (73%) adalah diterima, 3 *item* (8%) direvisi, 7 *item* (19%) adalah diterima dan direvisi. Berdasarkan hasil efektivitas pengecoh pada 65 siswa, terdapat 1 pengecoh yang tidak efisien. Tes pengetahuan konseptual fisika ini dapat dipergunakan sebagai tes standar untuk mengukur pengetahuan konseptual siswa tentang Optik Geometri di SMA.

Kata kunci: Pengetahuan Konseptual, Optik Geometri, Validitas, Reliabilitas



## ABSTRACT

**Feny Mora NIM 4173321018 (2017). Development of Objective Tests for Conceptual Knowledge of Physics on Geometry Optical Materials in SMA.**

The objective of this research to develop an objective test is to develop an objective test of conceptual knowledge of physics on Geometric Optics in high school that meets a good standard of qualification, covering aspects of validity, reliability, level of difficulty, discriminatory power and effectiveness of distractors. This type of research is research development or Research and Development (R&D), with the ADDIE model. The population of this study was all students of SMA Negeri 2 Percut Sei Tuan with the subject of all students of class XII MIA SMA Negeri 2 Percut Sei Tuan. The test instrument used in development research is a multiple-choice test with a total of 50 questions that measure conceptual knowledge. The results of the research on the development of the conceptual knowledge test showed that the content validity of the instrument expert on the objective test of the conceptual knowledge of physics in Geometry Optical Materials in high school was very good. The results of the validity of the broad field test obtained 36 valid questions and 2 invalid questions. The reliability result is 0.851. The results of the difficulty level are 38 questions in the medium category. Distinguishing power results 28 items (73%) were accepted, 3 items (8%) were revised, 7 items (19%) were accepted and revised. Based on the results of the effectiveness of the distractor on 65 students, there was 1 inefficient distractor. This physics conceptual knowledge test can be used as a standard test to measure students' conceptual knowledge about Geometric Optics in high school.

*Keywords: Conceptual Knowledge, Optical Geometry, Validity, Reliability.*