

ABSTRAK

NUR HUDA SHADRIANI SIMANULLANG. Pengembangan Instrumen Tes Berbasis PISA Materi Suhu dan Kalor di SMA. Tesis. Medan: Program Pascasarjana Universitas Negeri Medan, Oktober 2022.

Tujuan penelitian ini untuk mengembangkan instrumen tes berbasis PISA materi suhu dan kalor di SMA, sesuai standar kualifikasi instrumen tes yang baik, ditinjau dari validitas, reliabilitas, taraf kesukaran, daya beda, dan efektivitas pengecoh. Jenis penelitian adalah penelitian pengembangan (*Research & Developmental*), menggunakan model ADDIE dengan tahapan analisis (*Analysis*), desain (*Design*), pengembangan (*Development*), implementasi (*Implement*) dan evaluasi (*Evaluation*). Hasil analisis data menunjukkan instrumen tes memenuhi kriteria valid dengan persentase keidealan rata-rata 83,27%. Analisis 33 soal pada uji kelompok kecil diperoleh 31 soal diterima dan 2 soal ditolak. Uji kelompok besar diperoleh: Validitas, 25 butir soal valid (80,65%) dan 6 butir soal tidak valid (19,35%); Reliabilitas soal berada dikategori “Sangat Tinggi” dengan nilai 0,841; Taraf kesukaran, 12 soal kategori mudah (38,71%) dan 19 soal kategori sedang (61,29%); Daya pembeda soal didapatkan 7 soal kategori sangat baik (22,58%), 13 soal kategori baik (41,94%), 6 soal kategori cukup (19,35%), dan 5 soal kategori jelek (16,13%); Efektifitas pengecoh didapat 23 soal efektif (74,19%) dan 8 soal tidak efektif (25,80%). Butir soal yang diterima sebanyak 19 soal (61,29%), 8 soal direvisi (25,80%) dan 4 soal ditolak (12,90%).

Kata Kunci: Instrumen tes PISA, Suhu dan Kalor, ADDIE



ABSTRACT

Development of PISA-Based Test Instruments for Temperature and Heat Materials in SMA. Thesis. Medan: Postgraduate School of Medan State University, Oktober 2022.

The purpose of this study was to develop a PISA-based test instrument on temperature and heat material in high school, according to the standard of qualification of a good test instrument in terms of validity, reliability, level of difficulty, discriminating power, and effectiveness of distractors. The type of research is development (Research & Developmental), using the ADDIE model with stages of analysis (Analysis), design (Design), development (Development), implementation (Implement) and evaluation (Evaluation). The results of data analysis showed that the test instrument met the valid and effective criteria with an average ideal percentage of 83.27%. Analysis of 33 questions in the small group test obtained 31 questions accepted and 2 questions rejected. The large group test obtained: Validity 25 valid items (80.65%) and 6 invalid items (19.35%); The reliability of the questions is in the "Very High" category with a value of 0.841; The level of difficulty, 12 questions in the easy category (38.71%) and 19 questions in the medium category (61.29%); The discriminatory power of questions obtained 7 items in the very good category (22.58%), 13 questions in the good category (41.94%), 6 questions in the moderate category (19.35%), and 5 questions in the bad category (16.13 %); The effectiveness of distractors obtained 23 effective questions (74.19%) and 8 ineffective questions (25.80%). The items received were 19 questions (61.29%), 8 questions were revised (25.80%) and 4 questions were rejected (12.90%).

Keywords: PISA Test Instruments, Temperature and Heat, ADDIE