

## ABSTRAK

**JANUARITA BR GINTING (NIM : 8166176009).** Pengembangan *Tes Pengetahuan Konseptual* Pada Materi Suhu dan Kalor di SMA. Tesis. Medan: Program Pascasarjana Universitas Negeri Medan, 2019.

Tujuan dari penelitian ini adalah mengembangkan tes objektif pengetahuan konseptual materi fisika Suhu dan Kalor di SMA yang memenuhi syarat kualifikasi baik (tes standar) meliputi validitas, reliabilitas, tingkat kesukaran, daya pembeda dan efektivitas pengecoh. Jenis penelitian ini adalah penelitian pengembangan (*Developmental Research*), dengan menggunakan metode penelitian pengembangan model Borg dan Gall. Teknik analisis data yang digunakan adalah kualitatif dan kuantitatif. Hasil penelitian ditinjau dari analisis kualitatif, kualitas soal tes pengetahuan konseptual adalah sangat baik dengan persentase keidealan 93%. Ditinjau dari analisis kuantitatif, kualitas soal tes pengetahuan konseptual adalah baik. Analisis dari 75 butir soal tes pengetahuan konseptual pada uji kelompok kecil, diperoleh 72 butir soal yang diterima dan 3 butir soal ditolak. Pada uji kelompok besar diperoleh: (1) 68 butir valid (94,4%) dan 4 butir tidak valid (5,6%). (2) Soal memiliki reliabilitas baik yaitu 0,950. (3) Berdasarkan taraf kesukaran, 3 soal mudah (4,2%), 63 soal sedang (87,5%), dan 6 soal sulit (8,3%). (4) Berdasarkan daya pembeda, 39 soal termasuk kategori baik sekali (54,2%), 28 soal termasuk kategori baik (38,8%), 3 soal termasuk kategori cukup (4,2%) dan 2 soal termasuk kategori jelek (2,8%). (5) Berdasarkan keefektifan pengecoh, terdapat 68 soal efektif (94,4%) dan 4 soal tidak efektif (5,6%). Sehingga diperoleh butir soal tes pengetahuan konseptual yang berkualitas baik sebanyak 65 soal diterima (90,2%), 3 soal direvisi (4,2%) dan 4 soal ditolak (5,6%).

**Kata Kunci :** *Tes Pengetahuan Konseptual, Suhu dan Kalor, Validitas, Reliabilitas*



## ABSTRACT

**JANUARITA BR GINTING (NIM: 8166176009).** Development of Conceptual Knowledge Test on Temperature and Heat in Senior High School. A Thesis. Medan: Post Graduate Program State University of Medan, 2019.

This study aimed to develop a multiple-choice conceptual knowledge test for high school in temperature and heat according to standard qualification of a good test based on validity, reliability, difficulty index, discriminatory index and effectiveness distractor. This type of research is Developmental Research, by using Borg and Gall Research and Development methods. The data analysis technique used is qualitative and quantitative techniques. The results of this study based on qualitative analysis showed that quality of the conceptual knowledge test was very good with an ideal percentage of 93%. Meanwhile based on quantitative analysis showed that quality of conceptual knowledge test was good. The results of this research shows that from 75 items test of conceptual knowledge in small group test, obtained 72 items received and 3 items were rejected. In the large group test obtained: (1) 68 valid items (94,4%) and 4 invalid items (5,6%). (2) The test having good reliability is 0,950. (3) Based on difficulty index, 3 easy items (4,2%), 63 moderate items (87,5%), and 6 difficult items (8.3%). (4) Based on discrimination index, 39 items in very good category (54,2%), 28 items in good category (38,8%), 3 items enough category (4,2%) and 2 items in bad category (2,8%). (5) Based on effectiveness distractor using, there are 68 effective items (94,4%) and 4 items are not effective (5,6%). Finally, it obtained good quality of conceptual knowledge test items as many as 65 items accepted (90,2%), 3 items revised (4,2%) and 4 items rejected (5,6%).

**Keywords:** Conceptual Knowledge Test, Temperature and Heat, Validity, Reliability

