

## ABSTRAK

**DESI PRAWITA (NIM: 8166176003).** Pengembangan *Tes Pengetahuan Konseptual* Pada Materi Fluida di SMA. Tesis. Medan: Program Pascasarjana Universitas Negeri Medan, Desember 2018.

Tujuan dari penelitian ini adalah menyusun soal objektif tes pengetahuan konseptual pada materi Fluida di SMA yang memenuhi standar kualifikasi tes yang baik ditinjau dari segi validitas, reliabilitas, tingkat kesukaran, daya pembeda, dan efektifitas pengecoh. Jenis penelitian ini adalah penelitian pengembangan (*Developmental Research*), dengan menggunakan metode penelitian dan pengembangan (*Research and Development*). Teknik analisis data yang digunakan adalah kualitatif dan kuantitatif. Analisis data kualitatif meliputi materi, konstruksi, dan bahasa sedangkan analisis data kuantitatif meliputi validitas, reliabilitas, taraf kesukaran, daya pembeda dan efektifitas pengecoh. Data diolah dengan menggunakan program Ms. Excel. Langkah penelitian yang digunakan menggunakan langkah penelitian menurut Borg and Gall (1989) dikutip dari Sukmadinata (2006) yaitu Studi pendahuluan, perencanaan penelitian, pengembangan desain, uji ahli, revisi hasil uji ahli, uji coba kelompok kecil, revisi uji kelompok kecil, uji coba kelompok besar, revisi uji kelompok besar, setelah itu didapat instrument tes pengetahuan konseptual pada materi fluida di SMA yang memenuhi instrument tes yang baku. Hasil penelitian ditinjau dari analisis kualitatif, kualitas soal tes pengetahuan konseptual pada materi Fluida di SMA adalah Sangat Baik dengan persentase keidealan 90.1%. Ditinjau dari analisis kuantitatif, kualitas soal tes pengetahuan konseptual pada materi Fluida di SMA adalah Baik. Analisis dari 50 butir soal tes pengetahuan konseptual pada materi fluida diperoleh 45 butir soal diterima pada uji coba kelompok kecil. Selanjutnya dari 45 butir soal pada uji kelompok besar diperoleh: (1) 37 butir valid (82.2%) dan 8 butir tidak valid (17.8%). (2) Soal memiliki reliabilitas baik yaitu 0.817. (3) Berdasarkan taraf kesukaran, sebanyak 7 soal mudah (15.5%), 26 soal sedang (57.8%), dan 12 soal sulit (26.7%). (4) Berdasarkan daya pembeda, terdapat 26 soal termasuk kategori baik sekali (57.8%), 8 soal termasuk kategori baik (17.8%), 5 soal termasuk kategori cukup (11.1%), dan 6 soal termasuk kategori jelek (13.3%). (5) Berdasarkan keefektifan pengecoh, terdapat 37 butir efektif (82.2%) dan 8 butir tidak efektif (17.8%). Sehingga diperoleh butir soal tes pengetahuan konseptual yang berkualitas baik sebanyak 31 soal diterima (69%), 6 soal direvisi (13.3%), dan 8 soal ditolak (17.7%).

Kata Kunci : *Tes Pengetahuan Konseptual, Fluida, Validitas, Reliabilitas*

## ABSTRACT

**DESI PRAWITA (NIM: 8166176003).** Development of Conceptual Knowledge Test on Fluid Matter in Senior High School. A Thesis. Medan: Post Graduate Program State University of Medan, December 2018.

This study aimed to construct a multiple-choice conceptual knowledge test for high school in mechanic fluid according to standard qualification of a good test based on validity, reliability, difficulty index, discrimination index, and effectiveness distractor. This type of research is Developmental Research, by using Research and Development methods. The data analysis technique used is qualitative and quantitative techniques. Qualitative data analysis includes material, construction and language while quantitative data analysis includes validity, reliability, difficulty index, discrimination index, and effectiveness distractor. Data obtained is processed by using Ms. Excel. Step of the research is using Borg and Gall (1989) as cited in Sukmadinata (2006) that preliminary studies, research planning, design development, experts judgement, revision of expert judgement, a small group trials, revised small group trials, a large group trials, revised large group trials, then it obtained a conceptual knowledge test for High School in mechanic fluid according to standard qualification of a good test. The results of this study based on qualitative analysis showed that quality of conceptual knowledge test on fluid in high school was very good with an ideal percentage of 90.1%. Meanwhile based on quantitative analysis showed that quality of conceptual knowledge test on fluid in high school was good. The results of this research shows that from 50 items test of conceptual knowledge on Fluid, 45 items were accepted in small group trials. Furthermore, from the 45 items in large group is obtained: (1) 36 valid items (80%) and 9 invalid items (20%), (2) The test having good reliability is 0.817. (3) Based on difficulty index, there are 10 easy items (22.2%), 23 moderate items (51%), and 12 difficult items (27%). (4) Based on discrimination index, there are 26 items in very good category (57.8%), 8 items in good category (17.8%), 5 items in enough category (11,1%), and 6 items in bad category (13.3 %). (5) Based on effectiveness distractor using, there are 36 effective items (80%), and 9 items are not effective (20%). Finally, it obtained good quality of conceptual knowledge test items as many as 34 items accepted (76%), 2 items revised (4%), and 9 items rejected (20%).

*Keywords: Conceptual Knowledge Test, Fluid, Validity, Reliability*