

## ABSTRAK

**Maruahal Nickholas Pasaribu, NIM 4203151002 (2024). Pengembangan Instrumen Tes Literasi Sains Pada Materi Suhu, Kalor dan Pemuaian di SMP Negeri 8 Medan.**

Penelitian ini bertujuan untuk mengetahui kelayakan instrumen tes literasi sains berdasarkan validitas isi, validitas butir soal, reliabilitas, taraf kesukaran, daya beda, dan efektivitas opsi pengecoh, serta respons guru terhadap instrumen tes yang telah dikembangkan. Penelitian dan pengembangan instrumen tes ini menggunakan model ADDIE yang terdiri dari 5 tahapan, yaitu *analyze, design, develop, implement, dan evaluate*. Penelitian dilakukan di SMP Negeri 8 Medan melalui 2 tahap uji coba produk, yaitu uji coba kelompok kecil dengan 10 peserta tes dari kelas VIII-9, dan uji coba kelompok besar dengan 30 peserta tes dari kelas VIII-8. Adapun hasil dari validitas isi berdasarkan penilaian 5 validator, diperoleh 25 soal dinyatakan valid dan layak digunakan. Berdasarkan uji coba kelompok kecil, diperoleh 20 soal (80%) dinyatakan layak digunakan dan 5 soal (20%) tidak layak digunakan. Pada uji coba kelompok besar, diperoleh hasil validitas butir soal sebanyak 20 soal (100%) dinyatakan valid. Nilai reliabilitas instrumen sebesar 0,735 dengan interpretasi reliabilitas tinggi. Berdasarkan taraf kesukaran diperoleh 20 soal (100%) dengan kriteria sedang, berdasarkan daya beda diperoleh 6 soal (30%) dengan kriteria baik dan 14 soal (70%) dengan kriteria cukup, berdasarkan efektivitas opsi pengecoh diperoleh 20 soal (100%) dengan kriteria sangat efektif. Respons guru terhadap instrumen tes yang dikembangkan memperoleh nilai rata-rata sebesar 89,90% dengan kriteria sangat baik. Berdasarkan hasil analisis data tersebut, maka sebanyak 20 soal pada instrumen tes literasi sains yang dikembangkan layak digunakan dan dapat mengukur tingkat literasi sains siswa. Level literasi sains siswa di SMP Negeri 8 Medan berada pada level 3 dengan kategori kurang.

***Kata Kunci:*** Pengembangan, Instrumen Tes, Literasi Sains, ADDIE



## ABSTRACT

**Maruahal Nickholas Pasaribu, NIM 4203151002 (2024). Development of Science Literacy Test Instrument on the topic of Temperature, Heat and Expansion at SMP Negeri 8 Medan.**

This research aims to determine the feasibility of scientific literacy test instruments based on content validity, items validity, reliability, level of difficulty, discrimination power, and effectiveness of distracting options, as well teacher responses to the test instruments that have been developed. The research and development of this test instrument uses the ADDIE model which consists of 5 stages, namely analyze, design, develop, implement, and evaluate. The research was conducted at SMP Negeri 8 Medan through 2 stages of product testing, namely a small group trial with 10 test participants from class VIII-9, and a large group trial with 30 test participants from class VIII-8. The results of content validity based on the assessment of 5 validators, indicate that 25 questions were deemed valid and suitable for use. Based on small group trials, 20 questions (80%) were deemed suitable for use, while 5 questions (20%) were considered unsuitable for use. In the large group trial, the items validity results of 20 questions (100%) were deemed valid. The instrument's reliability value is 0.735 indicating a high level of reliability. Based on the level of difficulty, 20 questions (100%) were obtained with medium criteria, based on the discrimination power, 6 questions (30%) were obtained with good criteria and 14 questions (70%) with sufficient criteria, based on the effectiveness of distracting options, 20 questions (100%) were obtained with very effective criteria. Teacher responses to the test instruments developed obtained an average score of 89.90% with very good criteria. Based on the data analysis results, a total of 20 questions in the developed science literacy test instrument are deemed appropriate for use and can effectively measure students' level of science literacy. The scientific literacy level of students at SMP Negeri 8 Medan is at level 3 in the deficient category.

**Keywords:** *Development, Test Instrument, Scientific Literacy, ADDIE*