ABSTRAK

Iyonanda Manselly Sirait, NIM 4173111033 (2021). Pengembangan Instrumen Tes *Higher Order Thinking Skills* (HOTS) Pada Materi Bilangan Di Kelas VII SMP Gajah Mada Medan.

Penelitian ini bertujuan untuk mengetahui: (1) validitas, reliabilitas, tingkat kesukaran, dan daya beda produk instrumen tes HOTS pada materi bilangan yang dikembangkan, (2) kepraktisan instrumen tes HOTS pada materi bilangan yang dikembangkan. Penelitian ini merupakan penelitian pengembangan (*Development Research*) dengan model pengembangan *formative research* Tessmer yang terdiri dari 2 tahap yaitu *preliminary* dan tahap *formative evaluation* yang meliputi tahap *self evaluation*, *prototyping (expert review, one-to-one, small group*, dan *field test)*. Subjek uji coba penelitian ini adalah peserta didik kelas VII SMP Gajah Mada Medan T.A 2021/2022 yang berjumlah 26 orang. Instrumen pengumpulan data yang digunakan meliputi instrumen tes, lembar validasi, dan lembar angket respon. Jumlah tes yang dikembangkan sebanyak 6 butir tes. Hasil Penelitian menunjukkan bahwa instrumen tes HOTS pada materi bilangan yang telah dikembangkan valid dan praktis. Hal ini berdasarkan penilaian validator terhadap instrumen tes dengan nilai *Va* sebesar 3,61 dengan kategori valid dan komentar pada tahap *one-to-one* yang menyatakan bahwa bahwa tes tersebut baik dari segi isi/materi, konstruk, dan bahasa. Kepraktisan diperoleh dari banyaknya respon positif yang diberikan siswa yaitu sebesar 98,3% dan respon positif dari guru sebesar 100%. Hasil validitas butir tes juga diperoleh pada tahap uji *field test* dimana setiap butir tes dinyatakan valid dengan $r_{hitung} > r_{tabel}$ untuk setiap perhitungan butir tes. Reliabilitas instrumen secara umum dinyatakan reliabel pada nilai 0,843 dengan interpretasi sangat tinggi. Pada analisis tingkat kesukaran instrumen tes, diketahui bahwa tingkat kesukaran masing-masing butir tes sudah baik pada kategori sedang. Pada analisis daya pembeda, diketahui bahwa setiap butir tes memiliki daya pembeda ≥ 2 yang berarti daya pembeda sudah baik. Berdasarkan hasil analisis data instrumen tes HOTS pada aspek kemampuan pemecahan masalah, diperoleh rata-rata skor total adalah 64,42. Nilai tersebut menunjukkan bahwa tingkat kemampuan berpikir tingkat tinggi peserta didik pada aspek kemampuan pemecahan masalah termasuk dalam kategori baik (60-80).

Kata Kunci : *Development Research*, Instrumen Tes, HOTS, Kemampuan Pemecahan Masalah, Kualitas Tes.

ABSTRACT

Iyonanda Manselly Sirait, NIM 4173111033 (2021), Development of the Higher Order Thinking Skills (HOTS) test instrument on the number material of seventh grade at Gajah Mada Junior High School Medan.

This study aims to determine : (1) the validity, reliability, level of difficulty, and differentiating power of the HOTS test instrument product on the number material developed, (2) the practicality of the HOTS test instrument on the number material developed. This research is a development research with Tessmer formative research development model which consists of 2 stages, namely preliminary and formative evaluation which includes self evaluation, prototyping (*expert review, one-to-one, and field test*). The subjects of this research trial were the students of seventh grade at Gajah Mada Junior High School Medan in the 2021/2022 academic year, totaling 26 people. The data collection instruments used include test instruments, validation sheets, and response questionnaire sheets. The number of tests developed were 6 test items. The results showed that the HOTS test instrument on the number material that had been developed was valid and practical. This is based on the validator's assessment of the test instrument with a *Va* value of 3.61 with a valid category and comments at the one-to-one stage which state that the test is good in terms of content/material, construct, and language. Practicality is obtained from the number of positive responses given by students, which is 98.3% and positive responses from teachers are 100%. The results of the validity of the test items are also obtained at the field test stage where each test item is declared valid with $r_{count} \geq r_{table}$ for each test item calculation. Instrument reliability is generally stated to be reliable at a value of 0.843 with a very high interpretation. In the analysis of the level of difficulty of the test instrument, it is known that the level of difficulty of each test item is good in the medium category. In the analysis of discriminatory power, it is known that each test item has a discriminatory power ≥ 2, which means the discriminatory power is good. Based on the results of the data analysis of the HOTS test on the aspect of problem solving ability, obtained the average total score was 64.42.This value indicates that the level of students' higher order thinking skills in the aspect of problem solving ability is included in the good category (60-80).

Keywords: Development Research, Test Instruments, HOTS, Problem Solving, Test Quality.