ABSTRAK

Qania Agustika Siagian, NIM 4161111059 (2020). Pengembangan Instrumen Tes Untuk Mengukur *High Order Thinking Skill* (HOTS) Matematis Siswa MTs Negeri 2 Medan.

Instrumen tes yang diberikan guru kepada siswa belum menuntut siswa untuk berpikir tingkat tinggi matematis, padahal siswa harus terbiasa dengan soal yang menuntut *High Order Thinking Skill* (HOTS) agar mampu bersaing dengan negara lain dalam penilaian TIMSS dan PISA. Tujuan umum penelitian ini adalah mengetahui kemampuan berpikir tingkat tinggi matematis siswa, sedangkan tujuan khusus penelitian ini yaitu untuk mengetahui validitas, reliabilitas, tingkat kesukaran dan daya beda produk instrumen tes berorientasi *High Order Thinking Skill* (HOTS) pada materi pola bilangan, barisan, dan deret di kelas VIII SMP/MTs. Penelitian ini termasuk dalam penelitian pengembangan yang menggunakan tipe ADDIE (*Analysis, Design, Development, Implementation, Evaluation*). Subjek dalam penelitian ini berjumlah 57 orang. Instrumen tes dikelompokkan menjadi soal A, soal B, dan soal C. Hasil penelitian menunjukkan bahwa telah berhasil dikembangkan 15 soal yang dinyatakan valid, hal ini didasarkan pada perolehan skor rata-rata penilaian instrumen tes oleh ahli sebesar 91% dengan katagori sangat valid dan validitas setiap butir tes dinyatakan "valid" karena $t_{hitung} \geq t_{tabel}$. Reliabilitas instrumen tes setiap paket soal dinyatakan reliabel dengan perolehan nilai 0.76, 0.67, dan 0.69 dengan kategori tinggi. Pada analisis tingkat kesukaran dapat diketahui berada pada kategori mudah dan sedang. Pada analisis daya pembeda dapat diketahui berada pada kategori cukup baik dan baik. Hasil kemampuan berpikir tingkat tinggi matematis siswa pada kategori sangat tinggi sebesar 19,30%, kategori tinggi sebesar 24,56%, kategori cukup sebesar 15,79%, dan kategori kurang sebesar 15,79%. Rata-rata kemampuan berpikir tingkat tinggi matematis siswa adalah 65,09% dengan kategori cukup.

Kata kunci: Instrumen Tes, *High Order Thinking Skill*, ADDIE

ABSTRACT

Qania Agustika Siagian, NIM 4161111059 (2020). Development of Test Instruments to Measure Mathematical High Order Thinking Skills (HOTS) of Students of MTs Negeri 2 Medan.

The test instruments given by the teacher to students do not require students to think at high levels of mathematics, even though students must be familiar with questions that require High Order Thinking Skills (HOTS) in order to be able to compete with other countries in the TIMSS and PISA assessments. The general objective of this study was to determine the students' mathematical high-order thinking skills, while the specific objective of this study was to determine the validity, reliability, difficulty level and differentiation of the test instrument product oriented High Order Thinking Skill (HOTS) on the material of number patterns, sequences, and series in class VIII SMP/MTs. This research is included in development research using the ADDIE type (Analysis, Design, Development, Implementation, Evaluation). The subjects in this study were 57 people. The test instruments were grouped into question A, question B, and question C. The results showed that 15 items that were declared valid had been successfully developed, this is based on the acquisition of an average score for the assessment of the test instrument by experts of 91% with very valid and validity categories. each test item is declared "valid" because $t_{count} \geq t_{table}$. The reliability of the test instrument for each package of questions was declared reliable with a value of 0.76, 0.67, and 0.69 in the high category. In the analysis of the difficulty level, it can be seen that it is in the easy and medium category. In the analysis of the distinguishing power it can be seen that it is in the good and good enough category. The results of students' high level mathematical thinking ability in the very high category were 19.30%, the high category was 24.56%, the moderate category was 15.79%, and the poor category was 15.79%. The average higher order mathematical thinking ability of the students is 65.09% with sufficient category.

Keywords: Test Instruments, High Order Thinking Skill, ADDIE