

ABSTRAK

Nissa Zul Anggraini, NIM 4173111055 (2017). Pengembangan Instrumen Tes untuk Mengukur Kemampuan Penalaran Matematis Siswa Kelas VII MTs YP. Nurul Iman Tanjung Morawa.

Instrumen tes yang diberikan guru kepada siswa belum menuntut kemampuan penalaran matematis siswa, padahal siswa harus terbiasa dengan soal yang menuntut kemampuan penalaran agar mampu bersaing dengan negara lain dalam penilaian TIMSS dan PISA. Tujuan umum penelitian ini adalah mengetahui kemampuan penalaran matematis siswa, sedangkan tujuan khusus penelitian ini yaitu untuk mengetahui validitas, reliabilitas, tingkat kesukaran dan daya beda produk instrumen tes kemampuan penalaran pada materi bilangan pecahan, dan deret di kelas VII SMP/MTs. Penelitian ini termasuk dalam penelitian pengembangan yang menggunakan tipe ADDIE (*Analysis, Design, Development, Implementation, Evaluation*). Subjek dalam penelitian ini berjumlah 30 orang. Hasil penelitian menunjukkan bahwa telah berhasil dikembangkan 4 soal yang dinyatakan valid, hal ini didasarkan pada perolehan skor rata-rata penilaian instrumen tes oleh ahli sebesar 94,3% 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 0,90 dengan kategori sangat tinggi. Pada analisis tingkat kesukaran dapat diketahui berada pada kategori mudah dan sedang. Pada analisis daya pembeda dapat diketahui berada pada kategori sangat baik. Hasil kemampuan penalaran matematis siswa pada kategori tinggi sebesar 23,33%, kategori cukup sebesar 23,33%, kategori kurang sebesar 13,33%, dan kategori sangat kurang sebesar 40%. Rata-rata kemampuan penalaran matematis siswa adalah 52,91% dengan kategori kurang.

Kata kunci: Instrumen Tes, Kemampuan Penalaran Matematis, ADDIE



ABSTRACT

Nissa Zul Anggraini, NIM 4173111055 (2017). Development of Test Instruments to Measure Mathematical Reasoning Ability of Class VII MTs YP Students. Nurul Iman Tanjung Morawa.

The test instrument given by the teacher to students does not require students' mathematical reasoning abilities, even though students must be familiar with questions that require reasoning skills in order to be able to compete with other countries in the TIMSS and PISA assessments. The general purpose of this study was to determine students' mathematical reasoning abilities, while the specific objectives of this study were to determine the validity, reliability, level of difficulty and differentiability of the product of the reasoning ability test instrument on the material of fractions, and series in class VII SMP/MTs. This research is included in development research that uses the ADDIE type (Analysis, Design, Development, Implementation, Evaluation). Subjects in this study amounted to 30 people. The results show that 4 questions have been successfully developed which are declared valid, this is based on the acquisition of an average score of 94.3% for the assessment of the test instrument by experts in the very valid category and the validity of each test item is declared "valid" because tcount ttable. The reliability of the test instrument for each package of questions was declared reliable with a score of 0.90 in the very high category. In the analysis of the level of difficulty, it can be seen that they are in the easy and medium categories. In the analysis of discriminating power, it can be seen that it is in the very good category. The results of students' mathematical reasoning abilities in the high category were 23.33%, the sufficient category was 23.33%, the less category was 13.33%, and the very poor category was 40%. The average mathematical reasoning ability of students is 52.91% in the less category.

Keywords: Test Instrument, Mathematical Reasoning Ability, ADDIE

