

ABSTRAK

NURHAYATI UMATERNATE. 2022. Analisis Kemampuan Penalaran Matematis Siswa Kelas XI SMA Negeri 6 Kota Ternate PADA MATERI BARISAN DAN DERET (Suatu Penelitian pada Siswa Kelas XI SMA Negeri 6 Kota Ternate Tahun Ajaran 2021/2022).Dibawah Bimbingan Marwia Tamrin Bakar, S.Pd., M.Pddan Dr. Joko Suratno, M.Pd., Si.

Penelitian kualitatif ini bertujuan untuk mendeskripsikan kemampuan penalaran matematis siswa kelas XI SMA Negeri 6 Kota Ternate dalam menyelesaikan soal pada materi barisan dan deret. Pengumpulan data kemampuan penalaran matematis siswa menggunakan teknik observasi, tes, wawancara, dan dokumentasi. Instrumen tes yang digunakan adalah 3 butir soal tentang kemampuan penalaran matematis yang telah divalidasi. Data kemampuan penalaran matematis siswa yang dikumpulkan dianalisis secara kualitatif dengan cara mereduksi, penyajian, dan penarikan kesimpulan. Subjek penelitian ini adalah siswa kelas XI SMA Negeri 6 Kota Ternate sebanyak 18 siswa, kemudian dipilih 4 siswa sebagai perwakilan subjek penelitian berdasarkan kategori kemampuan penalaran matematis (Sangat tinggi, tinggi, sedang, dan rendah) untuk diwawancarai sebagai bentuk triangulasi.

Hasil penelitian menunjukkan bahwa kemampuan penalaran matematis siswa kelas XI SMA Negeri 6 Kota Ternate dalam mempelajari materi barisan dan deret dengan rata-rata sebesar 49.42 dalam kategori sedang. Kualifikasi kemampuan penalaran matematis dalam kategori sangat tinggi dicapai 2 siswa (11,11%) yang mampu menyajikan pernyataan matematika secara tertulis, melakukan manipulasi matematika, menyusun bukti, memberikan alasan atau bukti terhadap kebenaran solusi, serta mampu menarik kesimpulan terhadap penyelesaian materi barisan dan deret. Selanjutnya, 3 siswa (16,66%) dalam kategori tinggi mampu menyajikan pernyataan matematika secara tertulis, melakukan manipulasi matematika, dan menarik kesimpulan dari penyelesaian soal barisan dan deret. Sebanyak 4 siswa (22,22%) dalam kategori sedang mampu menyajikan pernyataan matematika secara tertulis, namun kurang lengkap, mampu melakukan manipulasi matematika, dan menarik kesimpulan dari penyelesaian soal pada materi barisan dan deret. Terdapat 9 siswa (50,00%) dengan kategori rendah dapat menyajikan pernyataan matematika secara tertulis walaupun belum lengkap..

Kata Kunci: *Penalaran Matematis, Kemampuan Penalaran Matematis, dan Barisan dan Deret*

ABSTRACT

NURHAYATI UMATERNATE. 2022. Analysis Of Mathematical Reasoning Abilites Of Students In Class Xi Sma Negeri 6 Kota Ternate City On The Material Of Sequences And Series (A Study On Class Xi Students Of Sma Negeri 6 Ternate Citiesin The Academic Year 2021/2022) Under The Guidance Of Dr. Marwia Tamrin Bakar, S.Pd., M.Pd And Dr. Joko Suratno, S.Pd., M.Pd., Si

This qualitative research aims to describe the mathematical reasoning ability of students in class XI SMA Negeri 6 Ternate City in solving problem on the material of sequences and serues. Data collection of students mathematical reasoning abilities using observation, tests, interviews, and documentation techniques. The test instrument used was 3 questions about validated mathematical reasoning abilities. The data on students matematical reasoning abilities collected were analyzed qualitatively by reducing, presenting, and drawing conclusions. The subjects of this study were 18 srudents of class XI SMA Negeri 6 ternate city, then 4 students were selected as respresentatives of the research subjects based on the category of mathematical reasioning ability (Very high, high, medium, and low) to be interviewed as a form of triangulation.

The results showed that the mathematical reasoning ability of class XI students of SMA Negeri 6 Ternate City in studying the material of sequences and derers with an average of 49.42 in the medium category. The qualification of mathematical reasoning ability in the very high category was achieved by 2 students (11, 11%) who were able to: present written mathematical statement, perform mathematical manipilations, compile evidence, provide reasons or evidence for the correctness of the solution, and be able to draw conclusions on the completion of the sequence material and row. Furth ermore, 3 students (16, 66%) in the high category were able to: present written mathematical statement, perform mathematical manipulations, and draw conclusions from solving series and serirs problem. as many as 4 students (22,22%) in the moderate category were able: able to present written mathematical statements, but were incomplete, able to perform mathematical manipulations, and draw conclusions from solving promblems on sequences and series material. there are 9 students (50, 00%) in the low category who can present a written statement even though it is not complete.

Keyword: *Mathematical Reasoning, Mathematical Reasoning Abilities, And Sequences And Series.*