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ABSTRAK

Penelitian bertujuan mengetahui kemampuan berpikir logis siswa pada materi suhu dan kalor. Penelitian ini menggunakan pendekatan deskriptif kuantitatif dengan instrumen *Test of Logical Thinking (TOLT)* oleh Tobin & Capie. Penelitian ini menggunakan seluruh populasi kelas VII SMP Hidayatul Kholil sebagai responden penelitian. Hasil penelitian menunjukkan bahwa kemampuan berpikir siswa berada pada tahap perkembangan kognitif operasional konkret dan tahapan perkembangan kognitif operasional transisional dengan persentase yang sama yaitu 45,16%. Secara keseluruhan, kemampuan berpikir siswa tergolong rendah. Hal ini tercermin pada setiap persentase indikator kemampuan berpikir logis. Pertama, indikator penalaran proporsional (14,52%) dengan. Kedua, indikator penalaran korelasional (19,35%) dengan. Ketiga, indikator pengontrolan variabel (29,03%) dengan skor 18. Keempat, indikator penalaran probabilitas (9,68%) dengan skor. Kelima, indikator penalaran kombinatorial (19,35%) dengan skor.
Kata kunci : kemampuan berpikir logis, suhu dan kalor

Muhamad Abdun Nafi', 2026. *Analysis of Students' Logical Thinking Skills in Temperature and Heat*. Thesis, Science Education Program, Faculty of Education, Trunojoyo University of Madura.

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ABSTRACT

This study aims to determine students' logical thinking skills regarding temperature and heat. This study employs a quantitative descriptive approach using the Test of Logical Thinking (TOLT) by Tobin & Capie as the instrument. The study utilized the entire seventh-grade population of Hidayatul Kholil Junior High School as the research respondents. The results showed that students' thinking abilities were at the concrete operational stage and the transitional operational stage of cognitive development, with the same percentage of 45.16%. Overall, students' thinking abilities were classified as low. This was reflected in the percentages of each logical thinking ability indicator. First, the proportional reasoning indicator (14.52%) with. Second, the correlational reasoning indicator (19.35%) with. Third, the variable control indicator (29.03%) with a score of 18. Fourth, the probabilistic reasoning indicator (9.68%) with a score of . Fifth, the combinatorial reasoning indicator (19.35%) with a score of.

Keywords: logical thinking skills, temperature and heat