

ABSTRAK

David Manuel Sihombing, NIM 4183121064, *Logical Reasoning Test* untuk Mengetahui Hasil Belajar Siswa SMA Swasta RK Bintang Timur Pematangsiantar.

Kemampuan argumentasi sangatlah penting bagi peserta didik, karena dengan kemampuan berargumentasi peserta didik dapat meningkatkan kemampuan berpikir kritis, logis, mampu memecahkan masalah, dan menciptakan argumen menggunakan logika ilmiah, sehingga argumen mereka dapat diterima oleh orang lain. Penelitian ini bertujuan untuk mengetahui kelayakan instrumen penilaian yang dikembangkan untuk mengukur kemampuan berpikir logis siswa pada materi Hukum Newton dilihat dari validitas, reliabilitas dan tingkat kesukaran serta mengetahui hasil belajar siswa kelas XI MIA pada materi Hukum Newton di SMA Swasta RK Bintang Timur Pematangsiantar. Penelitian ini menggunakan jenis penelitian kuantitatif menggunakan model Van Den Akker yang terdiri dari 4 fase yaitu penelitian pendahuluan (*preliminary research*), fase prototipe (*prototyping stage*), fase penilaian (*summative evaluation*), dan dokumentasi & refleksi sistematis (*systematic reflection & documentation*). Hasil validasi ahli bahwa ditinjau dari aspek isi kategori cukup, konstruk kategori cukup, dan bahasa kategori kuat. Uji validasi diperoleh 10 soal dalam kategori valid, nilai reliabilitas sebesar 0,88 dengan kategori sangat tinggi. Hasil tingkat kesukaran 2 soal sedang dan 8 soal mudah. Hasil uji regresi yang didapat sebesar $Y = 51,35 + 0,40X$. Dapat disimpulkan bahwa *Logical Reasoning Test* dapat digunakan sebagai tes standar untuk mengukur kemampuan argumentasi siswa di SMA.

Kata Kunci: *Logical Reasoning Test*, Hasil Belajar, SMA Swasta RK Bintang Timur Pematangsiantar

ABSTRACT

David Manuel Sihombing, NIM 4183121064, *Logical Reasoning Test To Know Student Learning Outcomes of SMA RK Bintang Timur Pematangsiantar*

Argumentation skills are very important for students, because with argumentation skills students can improve their critical and logical thinking skills, be able to solve problems, and create arguments using scientific logic, so that their arguments can be accepted by others. This research aims to determine the feasibility of an assessment instrument developed to measure students' logical thinking abilities on Newton's Law material in terms of validity, reliability and level of difficulty as well as knowing the learning outcomes of class XI MIA students on Newton's Law material at SMA RK Bintang Timur Pematangsiantar. This research uses a type of quantitative research using the Van Den Akker model which consists of 4 phases, namely preliminary research, prototype phase, summative evaluation phase, and systematic reflection & documentation. The results of expert validation show that in terms of the content of the category is sufficient, the construct of the category is sufficient, and the language of the category is strong. The validation test obtained 10 questions in the valid category, the reliability value was 0.88 in the very high category. The results of the difficulty level are 2 medium questions and 8 easy questions. The regression test results obtained were $Y = 51.35 + 0.40X$. It can be concluded that the Logical Reasoning Test can be used as a standard test to measure students' argumentation abilities in high school.

Keywords: *Logical Reasoning Test, Learning Outcomes, SMA Swasta RK Bintang Timur Pematangsiantar*

