

**Silvia Kusuma Wardhani, 2023. *Analisis Kesalahan Siswa Berdasarkan NEA (Newman Error Analysis) Ditinjau dari Gaya Kognitif Pada Materi Usaha dan Pesawat Sederhana*. Skripsi, Program Studi Pendidikan IPA, Fakultas Ilmu Pendidikan, Universitas Trunojoyo Madura. Dosen Pembimbing Badrud Tamam.**

## **ABSTRAK**

Penelitian ini bertujuan untuk mengetahui kesalahan yang dilakukan oleh siswa berdasarkan NEA (*Newman Error Analysis*) yang ditinjau dari gaya kognitif. Jenis penelitian ini adalah deskriptif kuantitatif dengan desain penelitian deskriptif. Penelitian dilaksanakan di UPTD SMPN 4 Bangkalan tahun ajaran 2022/2023. Sampel penelitian yaitu kelas VIII-F yang berjumlah 28 siswa. Berdasarkan penelitian yang telah dilakukan dapat disimpulkan: (1) Rata-rata, sebanyak 23 siswa tergolong ke dalam gaya kognitif *field dependent* (FD) dengan persentase sebesar 82%, sedangkan siswa yang tergolong ke dalam gaya kognitif *field independent* (FI) hanya berjumlah 5 siswa dengan persentase 18%. (2) Siswa dengan gaya kognitif *field independent* (FI) melakukan kesalahan membaca (*reading*) sebesar 45%, memahami (*comprehension*) sebesar 37%, transformasi (*transformation*) sebesar 38%, keterampilan proses (*process skills*) sebesar 48%, dan penulisan jawaban akhir (*encoding*) sebesar 66%. Sedangkan siswa dengan gaya kognitif *field dependent* (FD) melakukan kesalahan membaca (*reading*) sebesar 72%, memahami (*comprehension*) sebesar 53%, transformasi (*transformation*) sebesar 51%, keterampilan proses (*process skills*) sebesar 60%, dan penulisan jawaban akhir (*encoding*) sebesar 91%.

**Kata Kunci:** *field dependent, field independent, gaya kognitif, kesalahan siswa, newman error analysis, usaha dan pesawat sederhana*

**Silvia Kusuma Wardhani, 2023. *Analysis of Student Errors Based on NEA (Newman Error Analysis) in terms of Cognitive Style in Work and Simple Machines*. Thesis, Science Education Study Program, Faculty of Education, University of Trunojoyo Madura. Supervisor Badrud Tamam.**

### **ABSTRACT**

This study aims to determine the mistakes made by students based on NEA (Newman Error Analysis) in terms of cognitive style. This type of research is descriptive quantitative with a descriptive research design. The research was carried out at UPTD SMPN 4 Bangkalan for the 2022/2023 school year. The research sample was class VIII-F, which consisted of 28 students. Based on the research that has been done, it can be concluded: (1) On average, as many as 23 students belong to the field dependent cognitive style (FD) with a percentage of 82%, while students who belong to the field independent cognitive style (FI) are only 5 students with a percentage of 18%. (2) Students with field independent cognitive style (FI) make reading errors by 45%, comprehension by 37%, transformation by 38%, process skills by 48%, and writing final answer (encoding) by 66%. While students with field dependent cognitive style (FD) make reading errors by 72%, understanding (comprehension) by 53%, transformation by 51%, process skills by 60%, and writing the final answer (encoding) by 91%.

**Keywords:** *cognitive style, field dependent, field independent, newman error analysis, student errors, work and simple machine.*