

## ABSTRAK

Dewi Lestari Sinaga: Analisis Kemampuan Penalaran Deduktif Siswa dan Kemampuan Pemecahan Masalah Matematika pada Materi Turunan Fungsi Aljabar ditinjau dari *Adversity Quotient*. Tesis Medan: Program Studi Pendidikan Matematika Pascasarjana Universitas Negeri Medan 2025.

Penelitian ini dilatarbelakangi oleh rendahnya kemampuan penalaran deduktif dan pemecahan masalah matematika siswa, khususnya pada materi turunan fungsi aljabar. Tujuan dari penelitian ini adalah untuk menganalisis kemampuan penalaran deduktif dan pemecahan masalah matematika siswa berdasarkan *Adversity Quotient*. Penelitian ini menggunakan pendekatan kualitatif deskriptif. Instrumen yang digunakan meliputi tes penalaran deduktif dan pemecahan masalah, angket *Adversity Quotient*, serta wawancara yang dilakukan di SMA Swasta Pembangunan Galang. Responden penelitian berjumlah 20 siswa yang dipilih menggunakan teknik *Purposive Sampling*, berdasarkan hasil angket yang telah dikategorikan ke dalam tiga tipe *Adversity Quotient*, yaitu *Quitter*, *Camper*, dan *Climber*. Data yang diperoleh dianalisis melalui reduksi data, penyajian data, dan penarikan kesimpulan. Hasil penelitian menunjukkan bahwa siswa dengan tipe *Quitter* tidak mampu melakukan perhitungan berdasarkan aturan atau rumus, menarik kesimpulan dan menyusun langkah pembuktian langsung, sehingga indikator pemecahan masalah tidak tercapai sepenuhnya. Siswa tipe *Camper* hanya mampu melakukan perhitungan berdasarkan aturan atau rumus, tetapi belum mampu menarik kesimpulan dan memeriksa kembali jawaban. Sementara itu, siswa tipe *Climber* mampu memenuhi seluruh indikator penalaran deduktif dan pemecahan masalah, termasuk memahami masalah, merencanakan, melaksanakan rencana, dan memeriksa kembali.

Kata kunci: Penalaran deduktif, Pemecahan Masalah, *Adversity Quotient*.



## ABSTRACT

Dewi Lestari Sinaga: An Analysis of Students' Deductive Reasoning Ability and Mathematical Problem-Solving Ability on the Topic of Derivatives of Algebraic Functions Viewed from Adversity Quotient. Medan Thesis: Postgraduate Mathematics Education Study Program, State University of Medan 2025.

This study was motivated by the low level of students' deductive reasoning and mathematical problem-solving abilities, particularly in the topic of algebraic derivative functions. The purpose of this study is to analyze students' deductive reasoning and mathematical problem-solving abilities based on their *Adversity Quotient*. This research employed a descriptive qualitative approach. The instruments used included deductive reasoning and problem-solving tests, an *Adversity Quotient* questionnaire, and interviews conducted at SMA Swasta Pembangunan Galang. The respondents consisted of 20 students selected using purposive sampling, based on questionnaire results that categorized them into three *Adversity Quotient* types: *Quitter*, *Camper*, and *Climber*. The data were analyzed through data reduction, data display, and conclusion drawing. The findings revealed that *Quitter*-type students were unable to perform calculations based on rules or formulas, draw conclusions, or construct logical proofs, resulting in incomplete achievement of problem-solving indicators. *Camper*-type students were only able to perform calculations using rules or formulas but were not yet able to draw conclusions or review their answers. Meanwhile, *Climber*-type students were able to fulfill all indicators of deductive reasoning and problem-solving, including understanding the problem, planning strategies, implementing solutions, and evaluating results.

**Keywords:** *Deductive Reasoning, Problem-Solving, Adversity Quotient.*

