

ABSTRAK

Leinze Rizqi Quin Allgafria, 2026. *Analisis Kemampuan Literasi Matematika Siswa SMA Berdasarkan Tingkat Motivasi Belajar Pada Materi Barisan Dan Deret*. Skripsi. Program Studi Pendidikan Matematika, FKIP, Universitas PGRI Madiun. Pembimbing (I) Dr. Sardulo Gembong, M.Pd., (II) Dr. Davi Apriandi, S.Pd. Si, M.Pd.

Penelitian ini bertujuan untuk mendeskripsikan kemampuan literasi matematika siswa SMA berdasarkan tingkat motivasi belajar pada materi barisan dan deret. Penelitian ini menggunakan pendekatan kualitatif dengan jenis penelitian deskriptif. Subjek penelitian terdiri dari tiga siswa kelas X-6 SMA Negeri 2 Mejayan yang dipilih berdasarkan tingkat motivasi belajar menggunakan model *Attention, Relevance, Confidence, dan Satisfaction* (ARCS) yang dikembangkan oleh Keller, yaitu satu siswa dengan motivasi belajar tinggi, satu siswa dengan motivasi belajar sedang, dan satu siswa dengan motivasi belajar rendah. Teknik pengumpulan data dilakukan melalui kuesioner motivasi belajar, tes kemampuan literasi matematika, dan wawancara. Validitas data menggunakan triangulasi teknik, sedangkan analisis data menggunakan model Miles dan Huberman yang meliputi reduksi data, penyajian data, dan penarikan kesimpulan. Analisis kemampuan literasi matematika mengacu pada tiga komponen proses matematis, yaitu merumuskan (*formulate*), menggunakan (*employ*), dan menafsirkan (*interpret*). Hasil penelitian menunjukkan bahwa: (1) Siswa dengan motivasi belajar tinggi menunjukkan kemampuan literasi matematika yang cukup baik, mampu mengidentifikasi aspek-aspek matematis dari permasalahan, merumuskan ke dalam model matematika yang tepat, menerapkan prosedur penyelesaian secara sistematis, serta menafsirkan hasil ke dalam konteks permasalahan nyata disertai argumentasi yang logis; (2) Siswa dengan motivasi belajar sedang menunjukkan kemampuan literasi matematika yang belum berkembang secara optimal, hanya mampu mengidentifikasi informasi secara deskriptif tanpa merepresentasikannya ke dalam simbol variabel matematika dan tidak melakukan konversi ke dalam model matematika, meskipun masih mampu menerapkan prosedur penyelesaian hingga memperoleh jawaban yang benar, namun belum mampu menafsirkan hasil secara kontekstual; (3) Siswa dengan motivasi belajar rendah menunjukkan kemampuan literasi matematika yang paling terbatas, tidak mampu merepresentasikan informasi ke dalam simbol variabel matematika, tidak menggunakan rumus yang seharusnya dan hanya mengandalkan penjumlahan manual, serta belum mampu menafsirkan hasil secara argumentatif dan mendalam.

Kata Kunci: Literasi Matematika, Motivasi Belajar, Barisan dan Deret, Model ARCS

ABSTRACT

Leinze Rizqi Quiin Allgafria. 2026. *Analysis of High School Students' Mathematical Literacy Ability Based on Learning Motivation Level on Arithmetic Sequences and Series Material*. Thesis. Mathematics Education Study Program, Faculty of Teacher Training and Education, PGRI Madiun University. Advisors: Dr. Sardulo Gembong, M.Pd., Co-Advisor Dr. Davi Apriandi, S.Pd. Si, M.Pd.

This study aims to describe the mathematical literacy skills of senior high school students based on their learning motivation levels in the topic of sequences and series. This study employed a qualitative descriptive research design. The research subjects consisted of three students from Class X-6 of SMA Negeri 2 Mejayan, selected based on their learning motivation levels using Keller's Attention, Relevance, Confidence, and Satisfaction (ARCS) model, comprising one student with high learning motivation, one with moderate learning motivation, and one with low learning motivation. Data were collected through a learning motivation questionnaire, a mathematical literacy test, and semi-structured interviews. Data validity was ensured through technique triangulation, while data were analyzed using the Miles and Huberman model, including data reduction, data display, and conclusion drawing. The analysis of mathematical literacy skills referred to the three mathematical process components, namely formulating (formulate), employing (employ), and interpreting (interpret). The findings revealed that: (1) students with high learning motivation demonstrated good mathematical literacy skills by identifying the mathematical aspects of problems, formulating appropriate mathematical models, applying systematic solution procedures, and interpreting the results within real-life contexts supported by logical arguments; (2) students with moderate learning motivation demonstrated mathematical literacy skills that had not yet developed optimally, as they were only able to identify information descriptively without representing it using mathematical variables or constructing mathematical models. Although they were able to apply solution procedures correctly and obtain accurate answers, they were not yet able to interpret the results contextually; and (3) students with low learning motivation demonstrated the most limited mathematical literacy skills, as they were unable to represent information using mathematical variables, did not apply appropriate mathematical formulas and instead relied on manual addition, and were unable to interpret the results in a logical and in-depth manner.

Keywords: *Mathematical Literacy, Learning Motivation, Arithmetic Sequences and Series, ARCS Model*