

ABSTRAK

Musriyani, Iin. 2026. *Eksplorasi Penalaran Kreatif Matematis Siswa dalam Menyelesaikan Masalah Kontekstual Berbasis Budaya Lokal pada Materi Transformasi Geometri*. Skripsi. Program Studi Pendidikan Matematika, FKIP Universitas PGRI Madiun. Pembimbing (I) Titin Masfingatin, M.Pd. Pembimbing (II) Ika Krisdiana, S.Si., M.Pd.

Kemampuan penalaran kreatif matematis siswa masih perlu ditingkatkan, padahal merupakan kompetensi penting dalam pembelajaran matematika. Penelitian ini bertujuan mengeksplorasi penalaran kreatif matematis siswa dalam menyelesaikan masalah kontekstual berbasis budaya lokal pada materi transformasi geometri. Penelitian ini menggunakan pendekatan kualitatif dengan jenis penelitian eksploratif. Subjek penelitian terdiri atas dua siswa, yaitu satu siswa laki-laki dan satu siswa perempuan, yang dipilih menggunakan teknik *purposive sampling* dari kategori penalaran kreatif matematis cukup berkembang. Data dikumpulkan melalui tes penalaran kreatif matematis, wawancara, dan observasi, kemudian dianalisis melalui reduksi data, penyajian data, dan penarikan kesimpulan. Keabsahan data diperoleh melalui triangulasi teknik dan waktu. Hasil penelitian menunjukkan bahwa kedua subjek memberikan gambaran tiga indikator penalaran kreatif matematis, yaitu *novelty*, *plausibility*, dan *mathematical foundation*. Siswa mampu menghasilkan lebih dari satu strategi penyelesaian, memberikan alasan matematis yang logis, serta menerapkan konsep transformasi geometri secara tepat dalam menyelesaikan masalah kontekstual berbasis budaya lokal. Disimpulkan bahwa siswa dengan kategori penalaran kreatif matematis cukup berkembang telah menunjukkan kemampuan penalaran kreatif pada ketiga indikator, meskipun kualitas pencapaian setiap indikator berbeda. Penggunaan masalah kontekstual berbasis budaya lokal berpotensi menjadi alternatif pembelajaran untuk memfasilitasi pengembangan penalaran kreatif matematis siswa.

Kata kunci: penalaran kreatif matematis, masalah kontekstual, budaya lokal, transformasi geometri.

ABSTRACT

Musriyani, Iin. 2026. *Exploration of Students' Creative Mathematical Reasoning in Solving Local Culture-Based Contextual Problems on Geometric Transformation*. Undergraduate Thesis. Mathematics Education Study Program, Faculty of Teacher Training and Education, Universitas PGRI Madiun. Advisor (I) Titin Masfingatin, M.Pd. Advisor (II) Ika Krisdiana, S.Si., M.Pd.

Students' creative mathematical reasoning skills still need to be improved, even though they are an important competency in mathematics learning. This study aimed to explore students' creative mathematical reasoning in solving local culture-based contextual problems on geometric transformation. This research employed a qualitative approach with an exploratory research design. The research subjects consisted of two students, one male and one female, selected using purposive sampling from the category of moderately developed creative mathematical reasoning. Data were collected through creative mathematical reasoning tests, interviews, and observations, and were analyzed through data reduction, data presentation, and conclusion drawing. Data validity was established through technique and time triangulation. The results showed that both subjects demonstrated the three indicators of creative mathematical reasoning, namely *novelty*, *plausibility*, and *mathematical foundation*. The students were able to generate more than one solution strategy, provide logical mathematical justifications, and appropriately apply geometric transformation concepts in solving local culture-based contextual problems. It can be concluded that students in the moderately developed category of creative mathematical reasoning demonstrated creative reasoning abilities across all three indicators, although the quality of achievement varied among the indicators. The use of local culture-based contextual problems has the potential to serve as an alternative learning approach for facilitating the development of students' creative mathematical reasoning.

Keywords: creative mathematical reasoning, contextual problems, local culture, geometric transformation.