



## Literature Review: Ethnomathematics of the Angkola Batak Tribe in Mathematics Learning

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### ABSTRACT

**Objective:** This research is to find out whether ethnomathematics in the Angkola Batak culture can be used in mathematics learning, and it seeks to know which cultural artifact or philosophy of ethnomathematics is more widely used in learning. **Method:** This research is a literature review by collecting metadata through the PRISMA model. Articles from Google Scholar from 2018 to 2023 were collected with the help of Publish and Perish. This methodology consists of well-defined review stages, eligibility criteria developed and explained from information sources, a literature search strategy, a literature selection process, and data synthesis based on the literature. **Results:** Of the 14 articles used as research samples, there were four articles each for elementary school (ES) and junior high school (JHS), meaning ethnomathematics is more suitable for use at elementary and middle school levels. Using cultural artifacts as a learning medium is more common than using philosophy from that culture. **Novelty:** This research produces information that learning using ethnomathematics is more suitable for children with a semi-concrete learning level.

### INTRODUCTION

Education and culture are two elements that cannot be separated in everyday life because culture is a complete and comprehensive unity that occurs in a society. Education is a basic need for every individual in society. One thing taught in education is mathematics. Mathematics influences human character, such as religion, social life, language, economics, and so on (Hibatillah, 2020; Intania & Sutama, 2020; Ismail et al., 2022; Isro'iyah & Herminingsih, 2023; Jaelani et al., 2020). Humans try to develop this process using mathematics to fulfill basic life needs such as measuring, understanding modeling, and solving everyday problems (Juhaevah, 2022). Each place has different processes and characteristics according to the social culture of each region. Many scientists say that mathematics is integrated with culture.

Mathematics and culture are an interrelated unity. It is necessary to note the historical forms of mathematical ideas that occurred in various places in cultural contexts before traditions originating from past cultures were lost. D'Ambrosio (1985) said that mathematics practiced among cultural groups, such as ethnic groups that inhabit certain areas, labor groups, children of specific age groups, and professional classes, is called Ethnomathematics (Mania & Alam, 2021). Ethnomathematics is a science that is used to understand how mathematics is adapted from culture and functions to express the relationship between culture and mathematics (Hartati, 2022; Mania & Alam, 2021; Munthahana et al., 2023; Putra & Mahmudah, 2021; Sari et al., 2023). It can also be described as an art or technique developed by various people to explain, understand, and overcome problems in their environment. Ethnomathematics is a program that seeks to study how students understand, articulate, process, and ultimately use mathematical

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