

Adison Adrianus Sihombing, Maifalinda Fatra

Badan Riset dan Inovasi Nasional (BRIN), Indonesia, Universitas Islam Syarif Hidayatullah Jakarta, Indonesia

Paper title: "John Dewey's Experience-Based Learning in Ethnomathematics: Bridging Abstract Concepts and Cultural Realities"

Mathematics is considered a complex, abstract, and uninteresting subject for learners, and teachers have difficulty engaging Indonesian learners. This study aims to review, explore, and analyze the fundamental problems in learning mathematics with a cultural innovation approach from John Dewey's perspective. This study is qualitative in nature, using primary and secondary data. Primary data were obtained through interviews with key informants, tests, and observations of mathematics learning in the school environment. Secondary data were obtained through literature and document studies. Informants consisted of educators in the field of mathematics, junior high school students, and cultural activists. The results of the study showed that Ethno pedagogy is an appropriate local cultural innovation approach for mathematics learning. This approach provides new and concrete experiences in students' daily lives. They find learning mathematics fun, the material can be more easily understood, student engagement increases, and their academic achievement increases. The results of this study affirm John Dewey's educational theory that education should be based on real experiences that are relevant to students' lives so that students are able to understand through exploration and reflection. This study recommends that stakeholders innovate mathematics learning with a local cultural approach, namely ethnomathematics, in 3 aspects: curriculum, teaching, and learning.