

The perspective of mathematics in traditional Malay society with the ethnomathematics approach

ABSTRACT

This paper demonstrates the fundamentals of understanding mathematics within the traditional Malay culture. Western scholars have labelled the Malay community as those who are not able to evaluate the accuracy of mathematics. However, it is obscure to accept that the mathematical ideologies of Malays are merely based on their close observations of nature. In this respect, the study of ethnomathematics is relevant to analyse the mathematical ideas of traditional people, which were initially used in the discipline of Anthropology. Literary works are a reflection of the mind and culture of a society. Thus, this paper analyses three works of Malay oral literature; The Tales of Awang Sulung Merah Muda (Hikayat Awang Sulung Merah Muda), The Tales of Terung Pipit (Hikayat Terung Pipit) and Raja Donai Bahtera Kulit Kacang; all of which were basically presented by Malay storytellers. Each set of Malay mathematical ideas are interpreted based on a matrix system that is parallel to the thoughts and views of the Malays. Several mathematical techniques are used actively in the text; for instance, in the determination of the length, weight, predictable time and other such calculations. Indirectly, this analysis proves that the traditional Malay community is capable of assembling their mathematical ideas perfectly and in harmony with their perception of culture.

Keyword: Ethnomathematics; Traditional; Oral literature; Malay; Word-view