

Numerals in Kawaiwete

Introduction There is a lot of variation among mathematical systems in Indigenous languages. From bases, to limits, each language treats numbers (and therefore mathematics) differently. This difference in mathematical understanding means people speaking different indigenous languages might face different challenges when learning mathematics in Portuguese.

Studying a language's numerals and mathematical system, helps researchers understand how the speakers of that language view and use numbers. This knowledge will help identify what topics they could struggle with the most when learning the modern mathematical system in Portuguese, and how to overcome these challenges.

From the research point of view, studying numerals and mathematical systems helps understand more about the daily life of these cultures and their interactions between them and with other groups.

Materials This study focus on the Kawaiwete numerals (Tupi Guarani family, Tupi stock). The goal is to analyze the morphology of number words and to draw some hypothesis about mathematical knowledge. The data is based on Lima (2012).

Findings This research project tried to draw conclusions about the mathematical knowledge and lifestyle of the Kawaiwaté people based only on their numerals. Certain things about numeral system, such as the names given to numerals and their bases, among others, indicate that the system was developed using addition and multiplication. This means that the Kawaiwaté people knew basic arithmetic operations and used them in their daily life (prior to formal education). However, the limit of the numerals indicates that they didn't deal with very high numbers or didn't use them often. These findings will be explained in detail and using examples during the presentation.