

## Abstract

This study examined standard 6 and 8 (Standards 6 and 8 are the sixth and eighth years, respectively, of primary level schooling in Kenya.) students' perceptions of how they use mathematics and science outside the classroom in an attempt to learn more about students' everyday mathematics and science practice. The knowledge of students' everyday mathematics and science practice may assist teachers in helping students be more powerful mathematically and scientifically both in doing mathematics and science in school and out of school. Thirty-six students at an urban school and a rural school in Kenya were interviewed before and after keeping a log for a week where they recorded their everyday mathematics and science usage. Through the interviews and log sheets, we found that the mathematics that these students perceived they used outside the classroom could be classified as 1 of the 6 activities that Bishop (Educ Stud Math 19:179–191, 1988) has called the 6 fundamental mathematical activities and was also connected to their perception of whether they learned mathematics outside school. Five categories of students' perceptions of their out-of-school science usage emerged from the data, and we found that 4 of our codes coincided with 2 activities identified by Lederman & Lederman (Sci Child 43(2):53, 2005) as part of the nature of science and 2 of Bishop's categories. We found that the science these students perceived that they used was connected to their views of what science is.