

## Abstract

Two studies were conducted to examine the effect of the congruency of number naming rules with the base-ten concept on children's understanding of such concept. Comparing Chinese-speaking and English-speaking children studying in the same international school in Hong Kong, Chinese-speaking children's better base-ten concept was reflected by less base-ten related errors (e.g. nonstandard numbers, decade transition errors) generated when counting, and their better performance in combining coins of different denominations (\$10 and \$1) in achieving a particular price. This was attributed to the Chinese counting language that reflects the base-ten concept more explicitly. A multiple baseline study was also conducted to investigate the effect of training English-speaking children to count in a language in which number rules resemble those of the Chinese language. Results showed that their understanding of base-ten concept improved drastically and thus confirmed the importance of language in affecting children's base-ten number concept.