

Issue: Summer 2013

Teaching Mathematics Vocabulary with an Interactive Signing Math Dictionary

Jun 4, 2013, 16:13 PM

By Judy Vesel & Tara Robillard

State frameworks and national standards are explicit about the mathematics content that students must master at each grade level. Although the Individuals with Disabilities Education Act and the No Child Left Behind Act mandate that students who are deaf or hard of hearing and communicate in sign language have access to this content, evidence suggests that it remains out of reach for many in this group. The purpose of the implementation research described in this article was to examine use of a Signing Math Dictionary (SMD) to help students who are members of this population access the vocabulary required to master the mathematics content that underlies the topics they are studying. The study included eight separate classes and a total of 39 participants—8 teachers and 31 students—representing grades 4–8. The research design incorporated a descriptive case study methodology that involved observing (a) teaching mathematics without the SMD, (b) preparing students to use the SMD, (c) teaching mathematics with the SMD. The results suggest that, when used in actual classroom settings, the SMD may be a resource that supplements effective teaching and learning of the vocabulary of mathematics. However, further research is needed to study its use by both experienced and inexperienced teachers working with students in schools for the deaf and in inclusion settings, across math topics and grades.

[Download the full article \(PDF\) from the ISTE Store.](#)

Vesel, J., & Robillard, T. (2013). Teaching mathematics vocabulary with an interactive signing math dictionary. *Journal of Research on Technology in Education*, 45(4), 361–389.

The journal is indexed or abstracted in Education Research Index, Academic Search Premier, Inspec, Internet & Personal Computing Abstracts, and Educational Resources Information Center (ERIC), Education Index (H. W. Wilson), and Educational Research Abstracts (Routledge-Taylor & Francis).