

Signing Math Dictionary

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Funders: [National Science Foundation](#)

Website: <http://signsci.terc.edu/>

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TERC and Vcom3D are using the SigningAvatar® assistive technology to research and develop an illustrated interactive 3D dictionary of standards-based mathematics terms for students in grades K-8 who are deaf and hard of hearing and whose first language is sign. Project researchers are investigating what kinds of mathematics learning gains are possible with use of the *Signing Math Dictionary*. The hypotheses are that with the dictionary students in grades K-8 who are deaf and hard of hearing will have an assistive tool that helps them 1) increase their ability to sign, understand, and use the English-based language of mathematics; 2) improve their mathematics content knowledge; and 3) increase their ability to study mathematics independently. Releasing this unique assistive tool into the marketplace at the end of the two-year project will offer students who are deaf and hard of hearing increased access to the same learning opportunities that hearing students enjoy—including rigorous mathematics study that they can build on in high school and beyond and that may lead to careers in STEM. It will also serve as a resource of recognized signs for educators and, as such, may improve their practice. This projects builds on research that led to the development of the Signing Science Dictionary (SSD)—a dictionary of ~1,300 science terms and definitions for grades 4-8. The SSD was funded in part by grants from NEC Foundation of America, the National Science Foundation (HRD-0533057), and U.S. the Department of Education (H327A060026).

The National Science Foundation has made this project possible through grant number HRD-0833969.