Signing Earth Science Dictionary

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Funders: National Science Foundation

Website: http://signsci.test.terc.edu/

TERC and Vcom3D are using the Signing Avatar® assistive technology to research and develop an illustrated interactive 3D dictionary of standards-based Earth science terms for high school students who are deaf and hard of hearing and whose first language is sign. To establish the effectiveness of the dictionary, project staff are investigating the kinds of learning gains that are possible when it is used. Their hypotheses are that with the dictionary, students in grades 9-12 will have an assistive tool that helps them 1) increase their ability to sign, understand, and use the English-based language of Earth science; 2) improve their Earth science content knowledge; and 3) increase their ability to study Earth science independently. Dissemination of the tool will offer pre-college students who are deaf and hard of hearing increased access to the same learning opportunities that hearing students enjoy—including rigorous Earth science study that they can build on beyond high school and that may lead to careers in the geosciences. It will also serve as a resource of recognized signs for educators and professionals in the geosciences who collaborate with Earth science education programs through real-world experiences including field trips and internships. This project 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 the U.S. Department of Education (H327A060026).

The National Science Foundation has made this project possible through grant number GEO-0913675.