

Academic language impedes students' ability to learn science

April 22 2010

With a little guidance, educators can help students learn to read and understand the complex language of science texts, according to Catherine E. Snow of Harvard University and the SERP Institute.

Middle and high school students who read fluently in English class and on the Web may find that they cannot understand their science texts. And their science teachers may be ill prepared to guide them in reading the academic language in which science information is presented. In "Academic Language and the Challenge of Reading for Learning About Science," an article to be published in *Science* on April 23, 2010, Catherine E. Snow, a professor at the Harvard University Graduate School of Education and the Boston research director for the Strategic Education Research Partnership (SERP), makes the case that students need to be taught academic language in order to learn science and other subjects.

Word Generation, a SERP program developed under Snow's leadership, presents middle school students with all-purpose academic words embedded in interesting topics and provides materials for teachers of [science](#), mathematics, and social studies to extend the academic language focus across the curriculum and throughout the week. "The goal is for students to be able to read academic material on their own, but many will need some help through programs like Word Generation to get to that point," said Snow.

In addition to having its own specialized vocabulary, academic language

is more concise, using complex grammatical structures to express complicated ideas in as few words as possible. This is especially true when it comes to scientific writing. [Students](#) who prefer reading Web content over books have fewer opportunities to learn this language on their own.

Snow is helping teachers solve everyday learning problems that occur in classrooms thanks to a unique collaboration between the nation's top research and development talent and education professionals created by the SERP Institute. "By recruiting highly distinguished scholars like Catherine Snow, SERP has succeeded in making the difficult and often unglamorous work of tackling critical problems of everyday practice a respected endeavor," said Suzanne Donovan, SERP executive director.

The SERP collaboration is thriving at the William B. Rogers Middle School in Boston, which serves as a showcase for other schools in the district and beyond. With Word Generation now firmly embedded in everyday practice, academic language is taught systematically by teachers across the spectrum. "Word Generation is not a program to have kids memorize words and their meanings each week," said Principal Andrew Bott. "It is a program about how to look at words, to consider them in different forms, to access them across content areas, to determine different meanings of words depending on the content area, and to use a more sophisticated vocabulary on their own," he said.

Provided by Strategic Education Research Partnership

Citation: Academic language impedes students' ability to learn science (2010, April 22) retrieved 5 May 2024 from

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