

## CASE STUDY:

# University of Colorado Researchers Put Summary Street to the Test in Colorado Schools



## Situation

For years, education researchers have been trying to solve the problem of “Why Johnny can’t read.” But an even more relevant question may be, “Does Johnny understand?” According to the National Reading Panel, children *can* read—turn printed words into spoken—but they often don’t understand the meaning of what they’re reading or how to sort through what’s relevant<sup>1</sup>, which can lead to frustration and poor test scores. A group of researchers at the University of Colorado set out to find whether Summary Street<sup>®</sup>, a Web-based product from Pearson Knowledge Technologies (PKT), could help.

## Using Summary Street in Colorado Schools

Good reading comprehension is key to truly learning a subject, whether it’s science, history or social studies, and writing summaries of learning materials is one proven method of increasing student understanding of content.

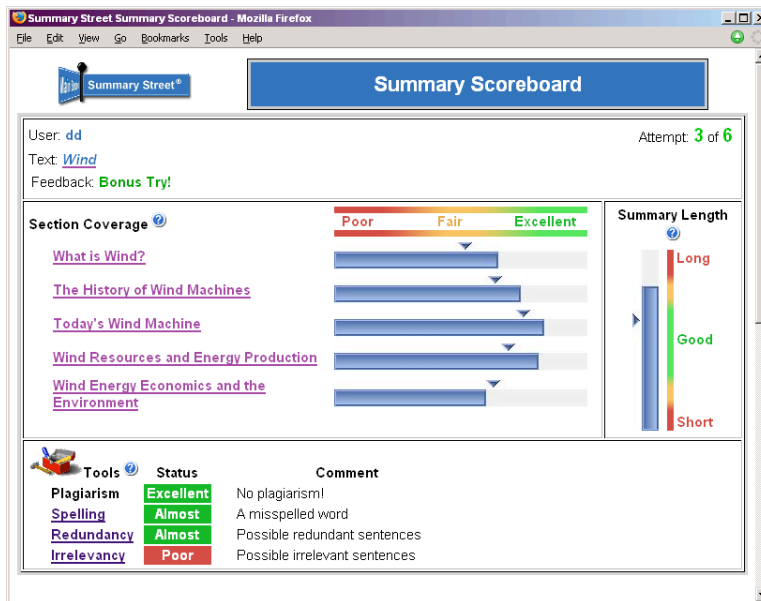
The University of Colorado research team, led by Walter Kintsch and Donna Caccamise, sought to find out whether technology could improve summarization skills as a means to boost student reading comprehension. With help from federal grants and the Colorado Department of Education, the team introduced Summary Street, built on PKT’s Knowledge Analysis Technologies™ engine, into 65 classrooms across seven school districts. All in all, more than 2,500 students in grades 5-12 were given access to Summary Street, in schools that varied widely in location, student reading abilities and demographics.

Summary Street works to enhance a skill that good readers naturally possess—the ability to summarize what they read—by offering students guided practice in writing summaries. First, the text to be summarized is provided by the program. The students read, then use the software to type a summary of what they just read. The program provides immediate, specific feedback on how well they covered each section of the content, whether they included redundant or irrelevant information and whether they directly copied too much text without putting the material in their own words.

What the Colorado researchers and teachers found is that Summary Street helps students focus on the gist of what they just read. Although it’s a writing exercise, the real goal of the software is to improve comprehension skills. And the teachers and students liked the fact that Summary Street isn’t drill-like in its approach. “It makes kids think on their own,” said Eileen Kintsch, a member of the research team. “It’s a way for them to self-assess whether they’ve understood what they’re reading. Writing what they know in their own words is a good way for them to find out what they know.”

“We see Summary Street as an ally to teachers because it teaches an important skill that teachers wish they had the time to do themselves, but don’t.”

<sup>1</sup> Donovan, M. & Pellegrino, J. (EDS) "Learning and Instruction, A SERP Research Agenda." Published by The National Research Council of the National Academies, Wash, D.C., p. 52



Summary Street Feedback Screen

## Results

The University of Colorado research team is in the second year of its broad evaluation of Summary Street. Current data show that students who use Summary Street write better and more comprehensive summaries and suggest that the process they go through helps them understand what they read in a deeper, more meaningful way. Caccamise noted that one of the most exciting aspects of Summary Street is that it helps students extract meaning from text. "Even if students have only used Summary Street a few times, we've found that they can transfer this ability to more deeply understand texts to new texts they read and summarize without further support of Summary Street. This tells us they are learning something about how to better comprehend texts that lasts beyond the research trials."

Teachers who participated in the study also appreciated that it not only helped children understand what they were reading but that it saved them time, too. "I love Summary Street," said Meghan Foster, a seventh grade English teacher at Shadow Ridge Middle School in Thornton, Colo. "Kids really learn to pick out the important things in the text, and [their] writing scores significantly improved. The best part is that feedback is immediate, and I don't have to read 120 summaries looking for all the critical information." Summary Street lets teachers assign much more practice in reading and writing.

### About the University of Colorado Research Project

The research on Summary Street is being conducted by the University of Colorado Institute of Cognitive Science with support from a federal grant from the Interagency Education Research Initiative (IERI), a collaborative effort jointly sponsored by the National Science Foundation, the U.S. Department of Education and the National Institutes of Health. Grants fund research projects that investigate the effectiveness of technology to improve student learning in grades preschool through 12 in varied school and home settings with diverse student populations.

### Contact

#### University of Colorado

Donna Caccamise, Ph.D.  
Associate Director, Institute of Cognitive Science  
UCB 344  
University of Colorado, Boulder  
80309  
Phone: (303) 735-3602  
donnac@psych.colorado.edu

### Benefits of Summary Street

- Improves reading comprehension skills, helping students focus on relevant content and overall meaning
- Immediate feedback encourages active learning and lets teachers assign more practice.
- Students learn a "new" way to read – skills they transfer to other subjects and classes

## **Additional Data in 2006**

In 2006, the research team will reveal more detailed results—the impact of Summary Street on suburban and rural students, at-risk students and students in various grade levels. They are also looking forward to testing the broader implications of Summary Street. Said Caccamise, “[Summary Street] can be used for homework or after-school programs, to prepare for standardized tests and maybe, one day, be integrated into textbooks. We see Summary Street as an ally to teachers because it teaches an important skill that teachers wish they had the time to do themselves, but don’t.”

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For more information, press only:  
Lisa Wolfe, L. Wolfe Communications, 773-325-9935, [lwolfe@lwolfe.com](mailto:lwolfe@lwolfe.com)

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