Individualizing a Web-Based Structure Strategy Intervention for Fifth Graders' Comprehension of Nonfiction

Bonnie J. F. Meyer
The Pennsylvania State University at University Park

Kausalai K. Wijekumar
The Pennsylvania State University at Beaver

Yu-Chu Lin
The Pennsylvania State University at University Park

In the study, we investigated effects of 2 different versions of a web-based tutoring system to provide 5th-grade students with strategy instruction about text structure, which was an intervention to improve reading comprehension. The design feature assessed varied in individualization of instruction (individualized or standard). The more individually tailored version was developed to provide remediation or enrichment lessons matched to the individual needs of each student. Stratified random assignment was used to compare the effects of 2 versions of the 6-month web-based intervention. Students in the individualized condition made greater improvements from pretest to posttest on a standardized reading comprehension test ($d = 0.55$) than did students in the standard condition ($d = 0.30$). Students receiving more individualized instruction demonstrated higher mastery achievement goals when working in the lessons than did students receiving the standard instruction ($d = 0.53$). Students receiving more individualized instruction showed greater improvement in using signaling, better work in lessons, and more positive posttest attitudes toward computers than did students receiving standard instruction. Students in both conditions improved their recall of ideas from texts and their use of the text structure strategy and comparison signaling words.

Keywords: reading comprehension instruction, web-based tutoring, individualization, structure strategy, fifth-grade reading