

# IT WORKS!

## Web-Based Reading Program Helps ELLs Make Literacy Gains

By Zoe Ann Brown

**N**EARStar (the Network for English Acquisition and Reading Star Schools program) provides multimedia beginning reading instruction for English Language Learners (ELLs) over the Web. NEARStar's animated learning activities, online storybooks, and catchy songs engage students while monitoring and assessing their progress. By harnessing technology's potential for individualized assessment and instruction, NEARStar supports English Language Learners so that they too can achieve to their full potential.

### But Does It Work?

During the spring of 2002, NEARStar's research-based curriculum was implemented in selected schools in ten states, including California and Rhode Island, and two U.S.-affiliated Pacific entities, American Samoa and the Commonwealth of the Northern Mariana Islands. The sites represented a range of urban, suburban, and rural settings and served students of Hispanic, Asian, Pacific Island, and other ethnic groups from high-poverty, non-English language backgrounds.

Over 3 months of implementation, students engaged in up to 8 Web-delivered lessons with 48 instructional activities. Their teachers had access to the professional website, which provides access to over 600 resources correlated to the student program.

Evaluation of the implementation phase included a quasi-experimental pre- and post-test design on a sample of students, with analyses of differences between treatment and comparison groups. Standardized assessments (including the Gates-MacGinitie Reading Test) and informal assessments (including Fry's Sight Word list, Potter's Alphabet Recognition, and the Ohio State Letter Identification) were also administered. Results indicated positive effects for all kindergarten and 1st grade treatment and comparison student groups tested, and for some assessments, there were significant differences in reading achievement from pre- to post-test in favor of the treatment group.

For example, among 1st grade students, the number of students in the treatment group with increased pre- to post-test scores on Fry's Sight Word list and the Letter/Letter Sound subtest of the Gates-MacGinitie was significantly higher than the number of students in the comparison group. A multivariate analysis of variance (MANOVA) on Fry's Sight Word list and the three subtests of the Gates-MacGinitie (Literacy Concepts, Letters/Letter Sound, and Oral Language) also revealed the treatment group performed significantly higher than the comparison group.

### Benefits to Students and Teachers

NEARStar's unique curriculum combines instruction in reading and English language development, presenting high-meaning, high-frequency, and decodable words at a controlled rate in comprehensible contexts.

Benefits to students include a sensory-rich interface with self-directed, game-like activities, and individualized, non-threatening



Photo: Tony Tung

▷ Students enjoy as well as learn from NEARStar, a multimedia beginning reading instruction program for English Language Learners.

assessment and feedback. Benefits to teachers include independent activities that support classroom instruction and easily accessed teacher resources that are part of the same Web-based package.

Two-thirds of the teachers who responded to the formative evaluation survey reported improvement in their students' reading from participating in NEARStar, and three-fourths reported improvements in their students' language skills. A majority also reported that their participation had increased their comfort with technology in the classroom and their ability to link their classroom with educational resources. More than 90% of teacher users believed the program would be effective for students at risk of reading failure or diagnosed as needing special education services. Even more believed that all their students could benefit from the NEARStar curriculum.

Findings of initial implementation of the NEARStar online literacy curriculum showed positive effects on achievement, especially considering the limited number of lessons students were engaged with; on the average, kindergarteners played just 4 lessons and 1st graders played 6 lessons during the brief implementation period. Considering that there are 3 levels of NEARStar, each with 10 lessons, we are cautiously optimistic that students exposed to the entire program will demonstrate even more dramatic improvements in reading achievement. Ongoing research on the program's effectiveness will provide yearly updates on improved reading skills for participants.

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