

Supportive Reading Environments (SRE)

Project Summary:

The initiative focuses on improving reading strategies and skills for increased comprehension of grade-level texts in 2 middle schools. The participating middle school (grades 5-8) has been targeted by the the State Department of Education as under performing. Data analysis has shown that all students in all subgroups need different supports for reading success and gains measured by standardized tests. The school currently has two computer labs that are scheduled as allied arts blocks. The computers in classrooms are class “C” and are not useful for differentiated instruction and data monitoring with the recommended software for reading strategy instruction. This grant would provide wireless laptop computers for the sixth grade team (six teachers and eight students) to implement reciprocal teaching and reading strategy instruction via a software program grounded in UDL supports and research. Students would learn to use the strategies of summarizing, questioning, predicting, and clarifying while reading exemplary grade-level appropriate literature that is part of the school system’s scope and sequence.

Proposed Impact:

All sixth grade students who have been deemed struggling by SRI, Terra Nova, and MCAS test results will use the laptops during literature sessions to read appropriate titles from the selection of nine novels. Many of our struggling readers are also in the subgroup population of ELL and SPED. The goal of using Thinking Reader on the laptops is to include struggling readers in the classroom teaching and discussion of exemplary literature. The goal is to increase the laptop users’ reading comprehension by training them to read strategically. Struggling readers need tools that they can use independently when they have trouble comprehending what they read. The software was created using principles of UDL in collaboration with CAST and it provides supports for text size, color, vocabulary in Spanish, text to speech and alternate keyboard navigation as well as modifying the speed of audio delivery. The goal is that at the end of the project students identified as “struggling” will have increased their reading strategy skills.

The Middle School will increase the scores of struggling readers on reading comprehension questions which ask students to use comprehension strategies such as summarizing, question generating, clarifying, and predicting. The program comes with built in assessments and work logs of students that capture a student’s strategy responses over time on a reading selection. This data about student progress can be used by the teacher to modify the reading level of a student, to set up student-teacher conferences and to inform alternate instructional methods to help a student master learning how to use reading strategies.

The goal of the software program is to teach students’ strategies for reading for understanding independently.

The goal of using the program in the district is to see if this instructional support used in a methodical way can help increase independent reading scores and reading comprehension scores of struggling students at the Middle School.

Needs Assessment

The **Middle School** has a Cycle III performance rating that is moderate in ELA and very low in math. The school has been identified for English Language Arts as “*no status*” and mathematics for “*restructuring*”. The school’s CPI in ELA is 71.3 compared to the state’s CPI of 75.6 . The school’s math CPI is 50.7 compared to the state’s CPI of 60.8. The schools’ grade 7 ELA, MCAS performance is “moderate” with the only 45.5% of students proficient and 22.2% of students failing. The following student learning objectives were defined in the school’s improvement plan as those that would address identified needs:

- All students will identify basic facts and main ideas in informational and non-fiction text and use them as a basis for interpretations. (ELA #8).
- All students will be able to identify, analyze, and apply knowledge of the structure and elements of a variety of genre, and provide evidence from the text to support their understanding. (ELA #10,12, 13, and 14)
- All students will be regularly exposed to and use grade-appropriate content-specific academic vocabulary in reading, writing, and speaking. (All standards)
- Limited English Proficient students will be able to understand and acquire new vocabulary and use it correctly in reading and writing. (Standards 2 and 4)

The technology plan and both school and district improvement plans in the district focus on using a variety of tools and instructional strategies to improve achievement in reading comprehension and math problem solving. Currently we have 5 out of 9 of our middle schools using wireless mobile labs to support this UDL based product called *Thinking Reader*. We are building capacity and making this initiative a systemic operation as we work to find funds to add the Middle School.

Conditions and Facilities

The Middle School has one full-time instructional technology specialist and one full-time library media specialist. Three years ago the infrastructure was updated to support wireless access and its hubs were converted to 10/100 switches for increased bandwidth performance. The district also employs apple technicians to install, configure servers, and troubleshoot. The power and back-up issues in head-end rooms have been addressed to support wireless laptop units. Tom Snyder and Scholastic, the developers of the program in collaboration with CAST, have offered their tech support to us repeatedly and onsite as we have rolled this out to five other middle schools during the 2004 school year.

Based on district assessments of teacher technology skills, 77% of educators at the Middle School were working at the early technology skill level. In addition to this, 8% were at the developing skill level and 15.5% were at the advanced level. Many teachers are lacking basic computer operation skills including using a school network for saving, and reporting of student data. This software program is server based and teachers will learn how to manage their classroom data about reading comprehension (strategy skills) of students. They will learn what it means to use data to inform instruction over time to increase achievement results. They will also learn how to use software as an integration tool and for analysis and problem-solving. Teachers will all receive accounts on the district’s Blackboard system and will learn how to use Marco Polo and the threaded discussion groups to supplement TR (Thinking Reader) lessons and to collaborate with each other about challenges and success models.