SERC Works

Best Practices from the State Education Resource Center

The State Education Resource Center (SERC) provides information, research tools, and professional development on best practices to better prepare educators and other service providers to meet the needs of Connecticut students. *SERC Works* covers one particular area of focus among SERC's many initiatives. This issue describes some of the highlights of the *Analyzing Literacy Data for Tiers of Instruction* project, which helps school-based data teams establish and enhance the systems necessary to inform instruction and raise the literacy achievement of their students. Data teams can achieve these goals by striving to: 1) improve their function; 2) increase the number and percentage of students achieving proficiency and above on state-, district-, and school-based assessments; and 3) increase the number and percentage of teachers using differentiated instruction for students of all races, students with special needs, and students who are English Language Learners, based on the results of the assessment data.

Analyzing Literacy Data for Tiers of Instruction

The project began in 2007-2008 as "Decision Making in a Three-Tiered Approach: School-based Literacy Teams and Coaches in Action," funded by a federal State Personnel Development Grant (SPDG). The goal was to create models of highly effective literacy teams that combine best practices in literacy with decision making in a multi-tiered approach. During the first year of the project, elementary school principals, coaches, and literacy teams participated in a series of professional development seminars focused on establishing the systems and practices of three-tiered literacy instruction. The elementary school teams used a coaching model to provide job-embedded, collaborative professional development in their schools. The objective was to build the capacity of the entire staff to develop and implement a "response to intervention" approach. The second year of the project allowed the participating schools to continue the job-embedded professional development in order to create a system of assessments or implement a three-tiered model around a specific area of literacy. During the third year of the grant, the emphasis shifted to the use of data teams to analyze assessment data and design instruction based on best practices in literacy.

At the end of the second and third years, all participants in the project were asked to complete the *Literacy Evaluation Tool* (LET) designed to ascertain the implementation of best practices regarding assessment of students, curriculum and instruction, response to

intervention, and literacy systems. The LET includes 30 items that are rated by educators on a scale of 0 (no or low implementation/fidelity), 1 (partial implementation/fidelity), or 2 (high or full implementation/fidelity). Figure 1 on this page illustrates the mean implementation score for each school as reported at the end of the second and third years.

Literacy Evaluation Tool (LET) Mean Implementation Score
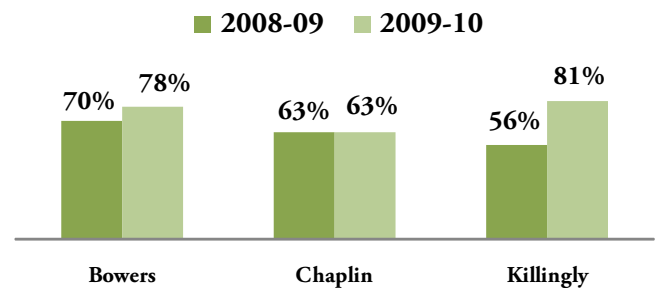

Figure 1

Bowers Elementary School (Manchester) and Killingly Memorial School (Killingly) increased their overall mean score, while Chaplin Elementary School (Chaplin) remained relatively even. In addition, Bowers and Killingly Memorial were rated higher across all four areas measured on the LET, and Chaplin was rated higher in response to intervention and systems in place.
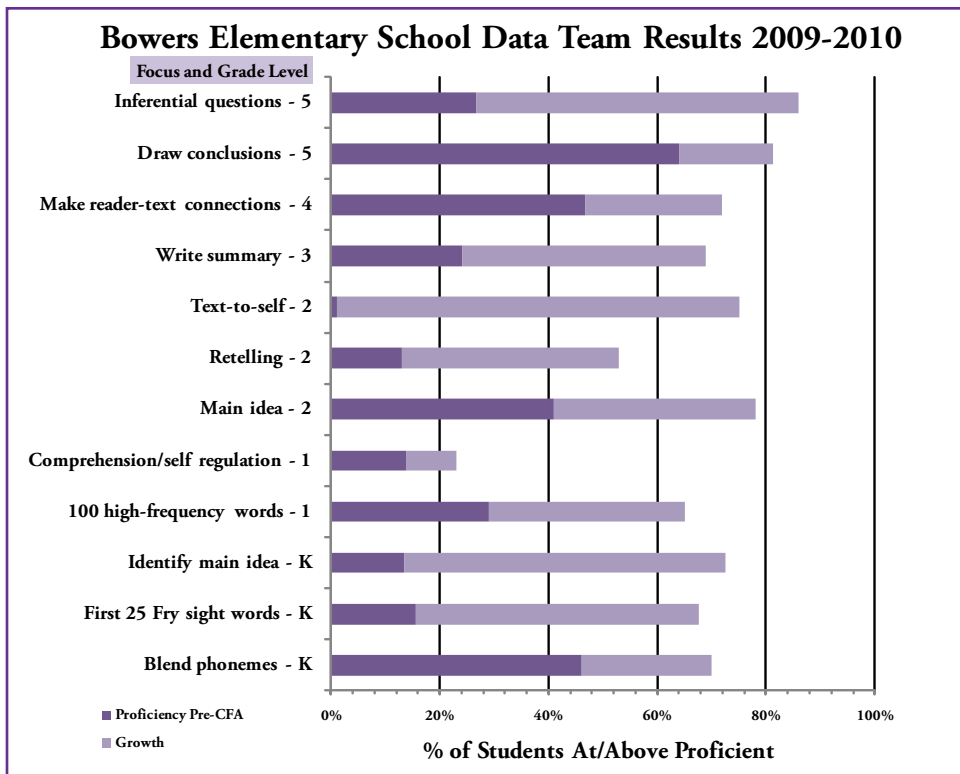
Bowers Elementary School Data Team Results 2009-2010

Focus and Grade Level

Focus and Grade Level
Inferential questions - 5
Draw conclusions - 5
Make reader-text connections - 4
Write summary - 3
Text-to-self - 2
Retelling - 2
Main idea - 2
Comprehension/self regulation - 1
100 high-frequency words - 1
Identify main idea - K
First 25 Fry sight words - K
Blend phonemes - K

■ Proficiency Pre-CFA
■ Growth

% of Students At/Above Proficient

Figure 2

Throughout the 2009-2010 school year, grade-level data teams (including the school principal and literacy coach) from Bowers (Manchester), Chaplin, and Killingly Memorial schools met monthly with SERC consultants to continue discussion and training on decision making in a three-tiered model. Highland Park Elementary School (Manchester) joined the project mid-year as well. Using the 5-step data process from the Connecticut Accountability for Learning Initiative (CALI), grade-level teams worked in conjunction with a SERC data coach and a SERC literacy coach to analyze common formative assessment data and implement best practices in literacy instruction.
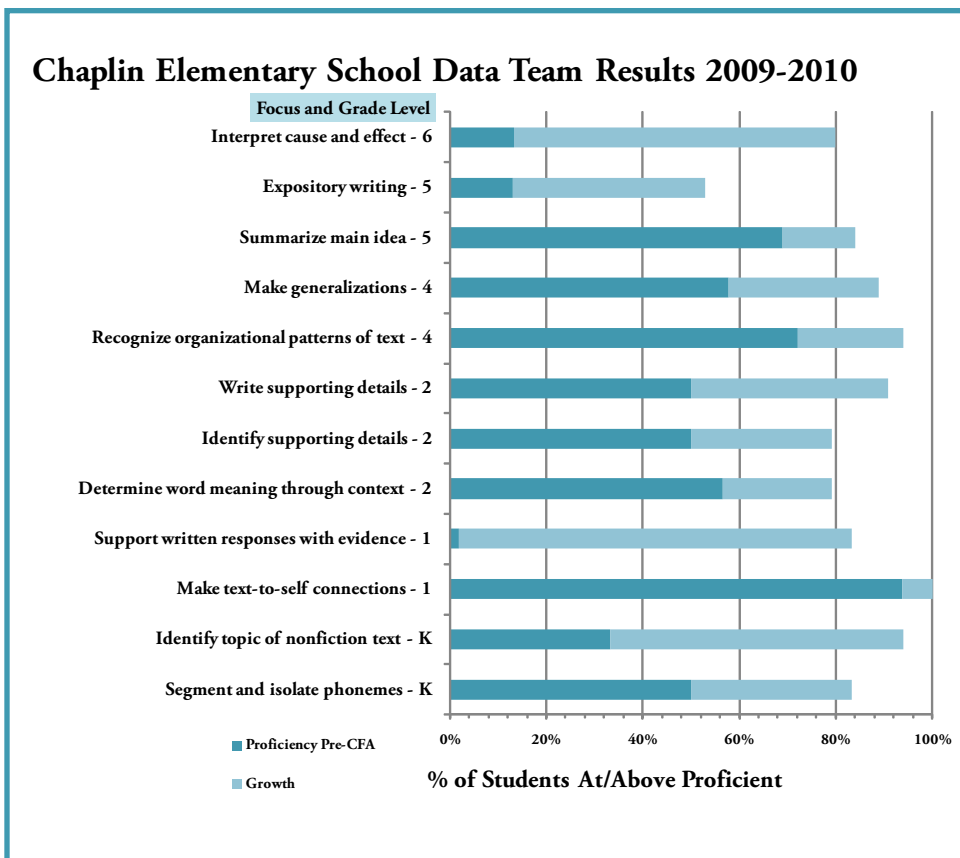
Chaplin Elementary School Data Team Results 2009-2010

Focus and Grade Level

Focus and Grade Level
Interpret cause and effect - 6
Expository writing - 5
Summarize main idea - 5
Make generalizations - 4
Recognize organizational patterns of text - 4
Write supporting details - 2
Identify supporting details - 2
Determine word meaning through context - 2
Support written responses with evidence - 1
Make text-to-self connections - 1
Identify topic of nonfiction text - K
Segment and isolate phonemes - K

■ Proficiency Pre-CFA
■ Growth

% of Students At/Above Proficient

Figure 3

Figures 2, 3, 4, and 5 illustrate completed data team cycles, including proficiency on the pre-assessment and growth made as a result of the use of the data team's instructional strategies. Percentages listed at the bottom of the chart represent the number of students at or above proficiency at the end of the data team cycle.

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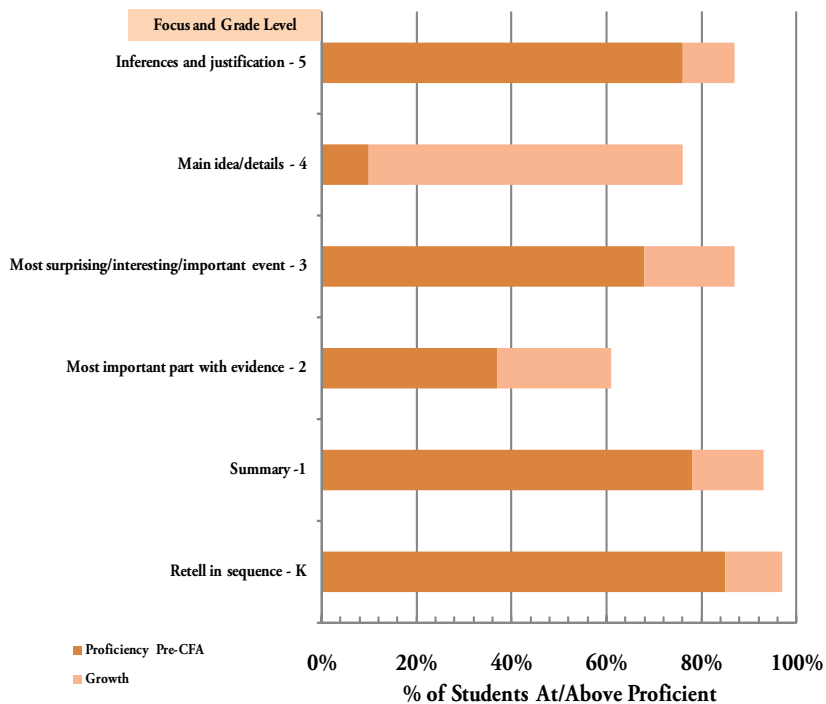## Highland Park Elementary School Data Team Results 2009-2010

Focus and Grade Level

Focus and Grade Level	Data
Inferences and justification - 5	
Main idea/details - 4	
Most surprising/interesting/important event - 3	
Most important part with evidence - 2	
Summary -1	
Retell in sequence - K	

Proficiency Pre-CFA
Growth

% of Students At/Above Proficient

Figure 4

Emphasis was placed on creating and aligning common formative assessments with the Connecticut English Language Arts grade-level expectations while considering the format and question types on the Connecticut Mastery Test and district benchmark assessments. The teams set SMART goals (see page 5) and agreed upon teaching strategies that would best meet student needs determined by a critical analysis of their work. After giving the post-instruction assessment, teams reassembled to review student progress and determine which strategies were most effective and should be replicated in the future.

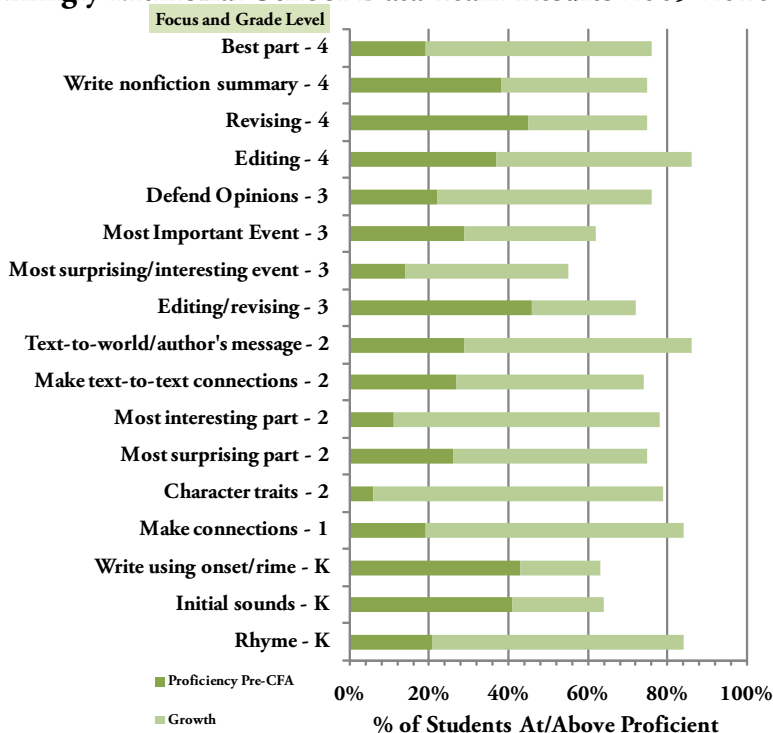## Killingly Memorial School Data Team Results 2009-2010

Focus and Grade Level

Focus and Grade Level	Data
Best part - 4	
Write nonfiction summary - 4	
Revising - 4	
Editing - 4	
Defend Opinions - 3	
Most Important Event - 3	
Most surprising/interesting event - 3	
Editing/revising - 3	
Text-to-world/author's message - 2	
Make text-to-text connections - 2	
Most interesting part - 2	
Most surprising part - 2	
Character traits - 2	
Make connections - 1	
Write using onset/rime - K	
Initial sounds - K	
Rhyme - K	

Proficiency Pre-CFA
Growth

% of Students At/Above Proficient

Figure 5

Bowers Elementary School and Killingly Memorial School became model school sites during the 2010-11 school year to allow visitors to observe a data team meeting and participate in a question and answer session with the school faculty. At these visits, the staff share the systems they have developed to move toward full implementation of the tiered instructional approach outlined in the state's Scientific Research-Based Interventions (SRBI) document.

For information regarding model schools, please contact Greta Skiles, SERC Consultant, at 860-632-1485, x 312 or skiles@ctserc.org.

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CASE STUDY: *Killingly Memorial School*

Killingly Memorial School is a K-4 elementary school located in northeastern Connecticut that has participated in the SPDG grant project throughout all three years. It is a Title I school serving approximately 500 students. As in many other schools, the demographics are changing; about one-third of the students receive free/reduced meals, the number of racially and linguistically diverse students is increasing, and about 9 percent of students have disabilities.

After reviewing reading results from the Connecticut Mastery Test (CMT) and the English Language Arts grade-level expectations, the faculty decided to create a school-wide focus on making connections. During faculty meetings, the teachers worked together in grade-level teams to "unwrap" the skills and concepts contained within the standards and developed big ideas/essential questions in preparation for creating common formative assessments.

During technical assistance sessions with SERC consultants, grade levels created scoring guides to articulate in specific, objective terms the expectations for proficiency. The collaboration involved in creating these scoring guides deepened every teacher's understanding of the skills and concepts required by the standards, provided consistency across classrooms, and developed explicit language teachers could use to instruct students.

After analyzing student responses to the open-ended assessment questions, two school-wide instructional strategies were developed. Primary students were taught to use the "Connections Clap," a kinesthetic reminder to tell something about the story (left hand), something about their own life (right hand), and then connect the two by telling how they are the same/different (clap). Intermediate grade students were taught a metacognitive process to notice when they make a connection:

  1) *Notice your own reaction, strong feelings,*
     or thoughts;
  2) *Stop and think (this reminds me of…);*
  3) *Store it (connect to schema); and*
  4) *Continue reading, maybe with a new purpose.*

Both strategies were found to be successful with students and will be replicated and refined by teachers in the future.
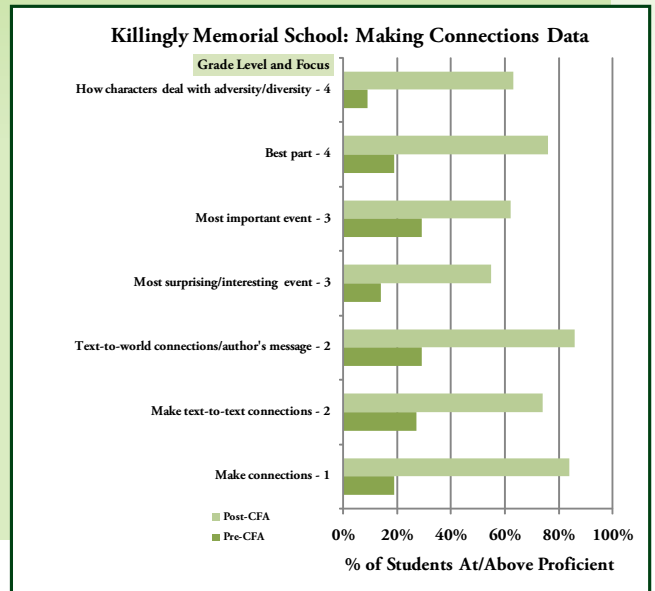

Figure 6

Figure 6 shows the pre- and post-instructional data cycle results on assessment questions related to making connections at Killingly Memorial School. **The average growth school-wide over the course of the data cycles was 51 percent.** Across all grades 1-4, the mean percentage of students proficient at the end of all cycles was 71 percent.

"Working with SERC has taken our instructional team leaders and our teachers to a much deeper level of understanding surrounding data use, universal assessments, and the SRBI process – especially as it relates to the need for a strong core curriculum. The SERC team truly differentiated instruction – always working with us from our place of understanding."

Marilyn Oat, Principal,
Killingly Memorial School

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At Killingly Memorial,
EFFECTIVE DATA TEAMS MAKE THE GRADE

The significant improvement in student performance in literacy at Killingly Memorial School can be attributed largely to the effective use of data teams, but that effectiveness did not happen overnight. The K-4 school had been using grade-level data teams for several years without making Adequate Yearly Progress (AYP).

Under the school's SPDG grant project, SERC Consultants Greta Skiles and Ivelise Velazquez began examining the way the data teams were operating. They videotaped the meetings with the second-grade team and showed clips of the videos to all of the grade-level teams to discuss how to make the teams more effective and productive. The teams met monthly with SERC throughout the 2009-10 school year.

By summer 2010, the school made AYP. The principal, Marilyn Oat, included SERC in the reasons attributing to this success.

"To have the objective eye come in is just a huge boon to me," Oat says. She credited SERC for keeping everyone focused on their goals. "We need … the same person holding a thumb to the same questions."

BY SUMMER 2010, THE SCHOOL MADE AYP.

SERC has continued visiting monthly during the 2010-11 school year. For every four-week cycle, the SERC consultant helps the teams set a SMART goal— one that is Specific, Measurable, Achievable, Relevant, and Timely—toward getting a certain percentage of students achieving proficiency at each grade level. The goal takes into account how many students were already proficient on the pre-assessment and how many are likely to be proficient by the end of the cycle. If the current proficiency rate is 64 percent and the ultimate goal is 100 percent, the goal for the next cycle might be, for example, 82 percent, depending on a variety of factors such as the rate of growth between previous cycles and the needs of individual students.

At Killingly, the team of teachers at each grade level meets before school for about 45 minutes one day per week. They also meet in the afternoon on the district's 14 early dismissal days per year that are set aside for professional development. Some faculty-meeting time is used for "vertical" data team meetings across grade levels. On the days that SERC visits the school, a meeting of team leaders is followed by meetings with each grade-level team.

The principal is a member of the teams, but the data team leader facilitates the meetings, and all teachers share ownership of the team. Principal Oat is always at the meetings with SERC and attends as many of the weekly morning meetings as is feasible.

Change Is Unpredictable

Student progress is not easily measured at Killingly Memorial. A number of students live in local shelters and rotate in and out of the school and the district. A reduced budget in 2010-11 cut seven staff, including the assistant principal, two special education teachers, and a reading coach. AYP itself is a moving target; in March 2011, Education Secretary Arne Duncan announced that 82 percent of schools in the country could end up failing to meet goals under the current No Child Left Behind law, which includes a goal of 100 percent proficiency in reading by 2014. The law may be reformed with entirely different targets.

Not only must the principal and the teachers adapt to this change, but all must change as a team so the school is working toward a common goal, Oat says. Through its work under the SPDG, SERC has been the catalyst to help the school come together.

"We're putting our energy in the same direction," Oat says, "and that's making all the difference in the world."

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ANOTHER MODEL:
Bowers Elementary School

Bowers Elementary is a K-5 school located in Manchester, Connecticut, that has participated in the grant project throughout all three years. It serves approximately 400 students and is very diverse: 1.2 percent of students identify as American Indian, 6.1 percent as Asian American, 18 percent as Black, 18 percent as Hispanic, and 56.8 percent as White; 38.8 percent of students are eligible for free/reduced meals; 5.6 percent of students are proficient in a language other than English; and 14.6 percent of students have disabilities.

After reviewing CMT reading results and the English Language Arts grade-level expectations, the faculty began aligning their comprehension strategy instruction throughout the grade levels in the first year of the project. During literacy team meetings, comprising grade-level representatives and specialists, staff created a common language of instruction for comprehension strategies. The school developed a document showing the vertical alignment with suggestions for lessons and the vocabulary of instruction influenced by the work of Nancy Boyles and other leading researchers using the Gradual Release of Responsibility framework. During SERC's technical assistance sessions, the literacy team developed the groundwork for tiered instruction, with an emphasis on maximizing learning in SRBI's Tier I or universal instruction. The staff made decisions regarding common instruction and enhancing opportunities for collaboration through book clubs and ongoing professional development supported by a literacy coach.

In 2009-10, the staff at Bowers focused its attention on data analysis. SERC consultants met monthly with grade-level teams to select common formative assessments, analyze student performance, and make strategic decisions about instruction across classrooms.
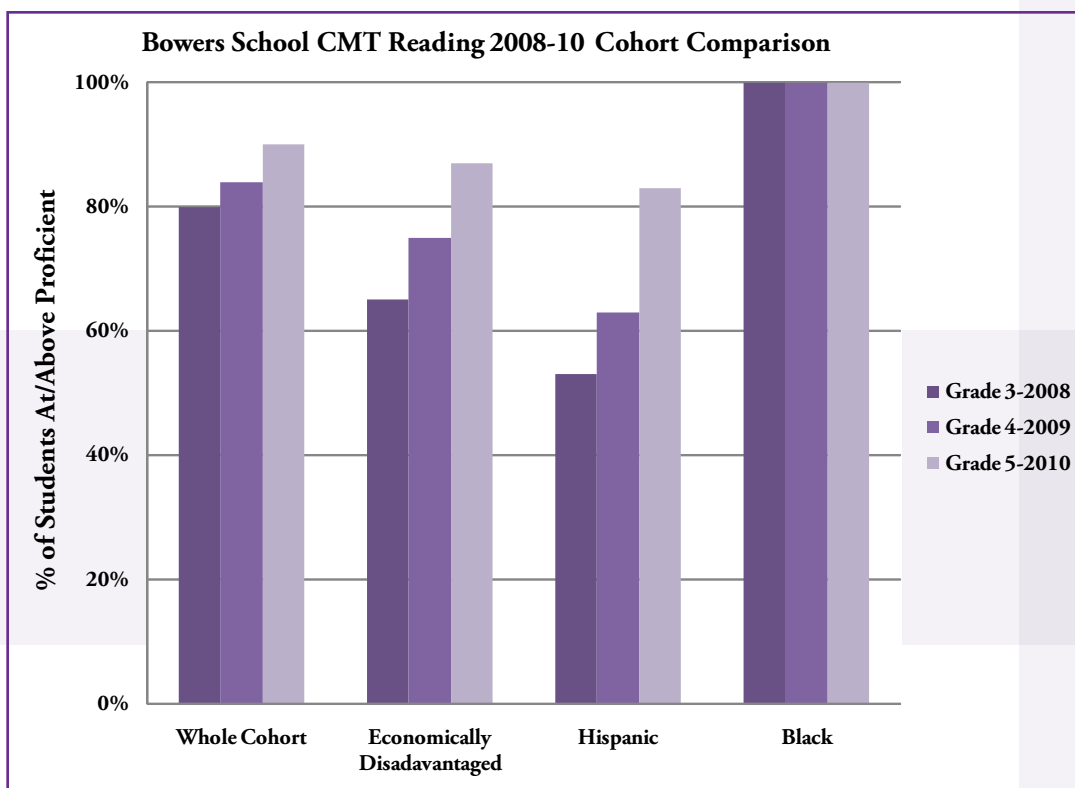

Bowers School CMT Reading 2008-10 Cohort Comparison

Figure 7

Figure 7 shows growth for a single cohort of students from 2008 to 2010, in third through fifth grade at Bowers Elementary School.

These years coincide with Bowers' participation in SERC's *Analyzing Literacy Data* professional development series. The chart depicts that students who are economically disadvantaged and/or Hispanic made 10- to 15-point gains on the CMT.

One hundred percent of Black students were at or above proficient for all three years.

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Killingly Memorial School: % of Students At/Above Proficient on CMT Reading

Figure 8

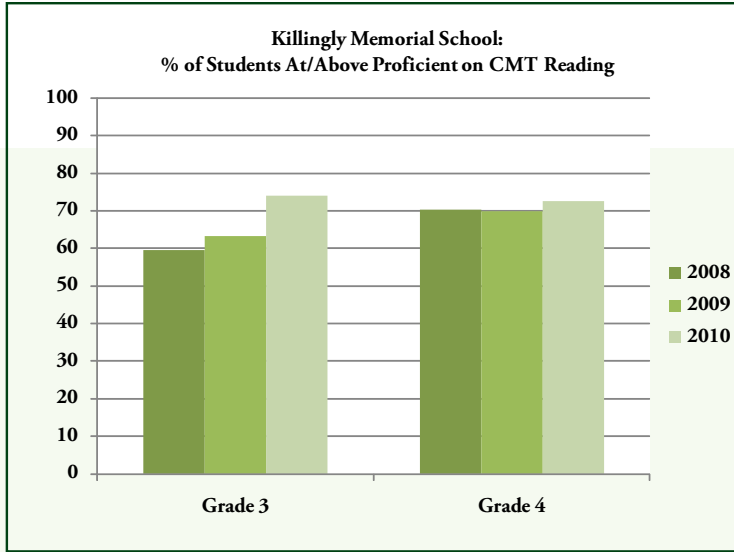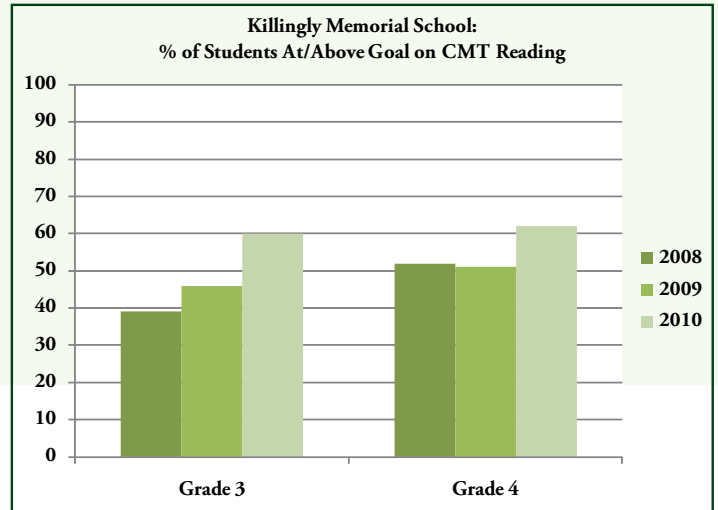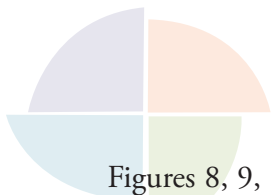**Killingly Memorial School: % of Students At/Above Goal on CMT Reading**

Figure 9

Figures 8, 9, 10, and 11 illustrate student achievement in reading on the Connecticut Mastery Test across the three years of the literacy grant project.
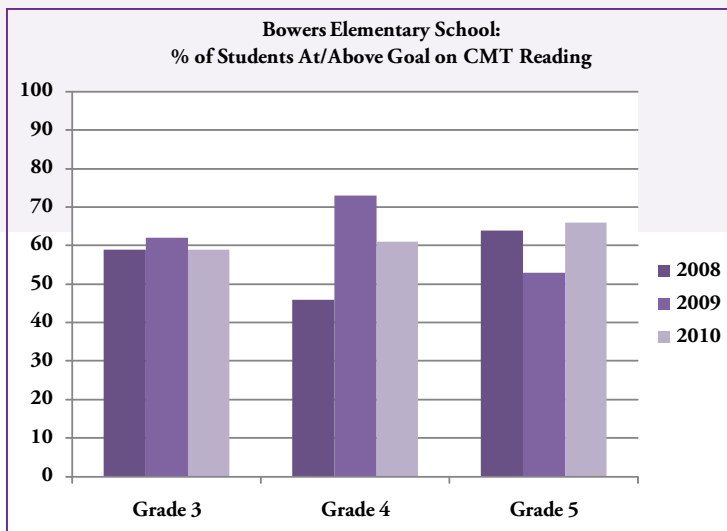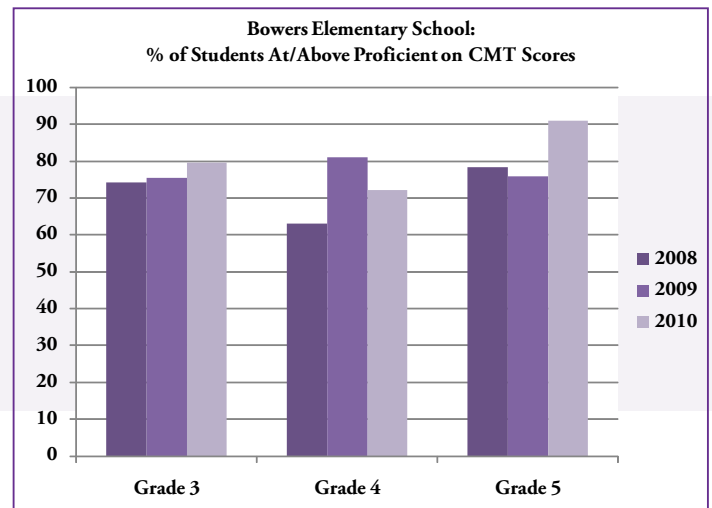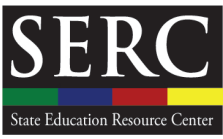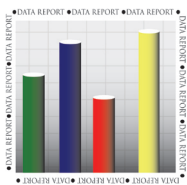
Bowers Elementary School: % of Students At/Above Proficient on CMT Scores

Figure 11

Bowers Elementary School: % of Students At/Above Goal on CMT Reading

Figure 10

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