

## Educational Research Projects 2001 – 2004

Essential Question	My Hypothesis	My Findings
For the purpose of assessment, what activities will allow a third grader to demonstrate competency in the NY ELA Standards and U-E Language Arts C.O.R.E.?	By completing a graphic organizer after reading a piece of literature, students demonstrate reading comprehension. By turning the graphic organizer into a written paragraph, students demonstrate their ability to organize their writing in paragraph form. By having students use the same rubric to assess their practice work throughout the year (based on the six-traits of writing), students will learn how to have control over their own score.	Language Arts Assessment Program for Third Grade (in collaboration with Third Grade Study Group at LWW, and being used at LWW since Fall, 2002)  Areas of Assessment: <ul style="list-style-type: none"> <li>• Problem – Solution</li> <li>• Character Trait</li> <li>• Cause – Effect</li> <li>• Main Idea – Detail</li> <li>• Compare – Contrast</li> </ul>
How can the goal of writing a 5-paragraph essay/report be made achievable for third graders?	Using a 4-Square Graphic Organizer breaks the process of writing a 5-paragraph essay/report into simple, sequential steps. Color-coding the paragraphs helps visual learners.	By breaking the task down into simple, sequential steps, and by color-coding the paragraphs, all students have been successful – including learning disabled, slow learners, ADHD students, and autistic students.)
How can the 4-Square Graphic Organizer be used to aid students in comprehension of math problems, and in organizing different strategies of problem-solving?	For simple computational problems, the 4-Square can be used with the acronym PIPS (Problem → Information → Picture → Solution) – comparable to the Story Map sequence of Problem → Events → Solution.  For problem-solving, the 4-Square can be used for the four steps of the <i>Problem Solver</i> method (Find Out → Choose a Strategy → Solve it → Look Back).	In addition to using the 4-Square with what I call “Guided Problem-Solving,” where the process is first modeled, then guided, and finally tried independently, students have also used the 4-square for problem-solving in cooperative groups. The students appreciate the way the 4-Square allows them to tackle the problem one small step at a time.

<b>Essential Question</b>	<b>My Hypothesis</b>	<b>My Findings</b>
<p>How can the 4-Square be used across the curriculum, so that students will learn how a tool can be applied in many different ways?</p>	<p>The 4-Square can be used in a variety of ways with third graders:</p> <ul style="list-style-type: none"> <li>• A pre-writing organizational tool for narrative, persuasive, and expository writing (including science reports)</li> <li>• Problem-Solving in Math (including problems that are based on the science concepts being studied)</li> <li>• Scientific Method in Science</li> </ul>	<p>We have written 5-paragraph reports on the moon, and we have solved multi-step math problem about the solar system using the 4-Square with PIPS.</p> <p>One student, on her own, and without seeing it modeled in this way, applied the 4-square to writing a 5-paragraph personal narrative (fictional) that she created during Writing Workshop.</p>
<p>How can the Language Arts Assessment (created in 2001 – 2002) be improved?</p>	<p>Rather than having 3 different graphic organizers for problem/solution, character trait, and cause/effect, it would be helpful for the students to see how the same graphic organizer can be used for all three. Using the same graphic organizer would show them how a tool can be used in different ways (have different applications). This is important because tasks on the ELA exam will not necessarily be identical to the tasks for which they use these different graphic organizers, and they need to learn how to adapt familiar tools to new tasks. Using the same graphic organizer will also show students how each analytical paragraph, no matter what the purpose, follows the same general recipe of organization.</p>	<p>In 2002 – 2003, created a revision to the Language Arts Assessment program that allows a generic story map to be used for organizing a one-paragraph analysis of problem/solution, character trait, and cause/effect.</p>