



## A Summer Literacy Approach Yields Success for Inner-City Children

*Richard Sinatra*

### ABSTRACT

This report describes the organizational structure, a literacy approach called the 6Rs, and theme – related components that occurred over three summers at CampUs. Thousands of inner-city children from housing development sites located in New York City’s five boroughs were bused to a metropolitan university. During 10-day cycles, children read trade books related to themes, used concept maps to help reason through and retell/reconstruct the readings, wrote and revised papers, and did multi-media computer projects related to the themes. Informal evaluations of children’s writings revealed both improvements in writing and awareness of the CampUs theme messages.

### AUTHOR BIOGRAPHY

Richard Sinatra is Professor of Literacy, department chair, and project director of CampUs at St. John’s University in New York City. He is author of *Word Recognition and Vocabulary Understanding Strategies for Literacy Success* (2003) published by Christopher-Gordon and co-author of *K-8 Instructional Methods: A Literacy Perspective* (2005) Allvn & Bacon/Pearson

How does one provide an appealing but educationally sound out-of-school program for thousands of inner-city children during the off-school-time of summer? That was the challenge I faced as project director in developing the CampUs Program held just two weeks for each cycle of roughly 500 children bused to a university campus from the five boroughs of New York City during the last three summers. Fortunately four major program sponsors and partners provided the financial, facility, and resource support to create a motivational and nurturing learning environment. The program methodology described in this paper may assist other practitioners and providers in New York State and elsewhere in developing out-of-school programs that support state standards while serving deserving children and youth.

Program developers may also wish to become aware of the greater out-of-school movement to learn of funding and program opportunities. Public and private organizations and community-based agencies are becoming increasingly aware of the need to provide safety, supervision, and academic support for children and youth in our modern era when many parents must work. This notion about safety was reflected in a paper by 11-year old Julian who wrote,

“I like the program at CampUs because there is not violence here and there are no drugs. At class my teacher reads us a book about drugs and what happens after you do drugs. Here the environment is clean....If I hadn’t come, I wouldn’t have learned all the things my teacher said. This way I will stay smart and believe in myself. Here at CampUs they teach you things that will stay in your mind for next year.”

After-school funding was authorized by Congress in 1994 under the 21<sup>st</sup> Century Community Learning Center Program to allow schools to remain open longer for more extensive use by their local communities. Later in 1998, after-school times were expanded to include weekends, holidays, and summers, and grant applications had to include provisions for academic work. Presently 21<sup>st</sup> century



funding supports after-school programs in roughly 7,500 rural and inner-city public schools in more than 1,400 communities (U.S. Department of Education, 2003). Some web sites are provided at the end of this paper to assist developers in their quest for funding and program information.

### **The CampUs Partners**

Besides 21<sup>st</sup> Century funding, one needs to look to more local sponsors and partners for resource possibilities and consider such issues as the times and location of the program, the depth and breadth of the program offerings, and the staff needed to implement the program successfully. In the case of the CampUs Program, the major funding partner was the New York City Housing Authority (NYCHA), a federally funded government agency. The Authority supplies affordable and safe housing for over 174,000 families with a mean income of \$15,685.00 living in its 346 housing development sites located throughout the city's five boroughs. Secondary funding and management services were provided by the New York Chapter of the Inner City Games Foundation (ICG), recently renamed the After-School All-Stars (ASAS), and chaired at the national level by Mr. Arnold Schwarzenegger.

The major contributions of the two other partners – St. John's University and the New York City Department of Education – made the program happen on a daily basis. The university contributed its classrooms, athletic facilities and fields, swimming pool, three computer labs, and tennis courts on a full-time exclusive basis while the CampUs children were in attendance. The transportation and food services division of the NYC Ed Department contributed the busing from the five boroughs and the breakfast and lunch for roughly 500 children per day over 20 days. A sense of common mission to provide a high quality program for inner-city, economically disadvantaged children who would not normally experience such a program is what made the partners cooperate successfully.

### **Considerations of Program Development**

There were three major considerations that influenced the design and structure of the CampUs Program. This first was to support the Authority's goal to provide educational, cultural, and recreational programs during off-school times so as to counter the potential ills of inner-city life. Risk factors that limit youth from reaching their full potential and entering into healthy relationships to achieve productive adult lives had been identified as poverty, availability of drugs, family conflict, academic failure, peers who engage in socially deviant behavior, and the inability to achieve positive attention and reinforcement from human relationships (Hawkins, Catalano, & Milker, 1992; Office of Juvenile Justice and Delinquency Prevention, 1998; & Viadero, 2000).

The second consideration was to enhance the gains in literacy learning made by children during the regular school year and hopefully provide them with a boost in reading and writing development when they returned to school in the fall. Evidence had shown that children from low-income families tend to lose academic and learning gains during the summer months when compared to their more economically privileged peers (Viadero, 2000). Thus, claim Entwistle, Alexander, and Olson (2001), the resources of schooling are "turned off" for poor children during the summer months, while the learning faucet is "turned on" for more privileged children through other summer athletic, cultural, and traveling experiences.

Some summer school programs have indicated that the "summer slide" in closing achievement gaps while meeting state standards can be achieved (Borman, 2001; King & Kobak, 2000). While economically disadvantaged children involved in summer programs need to read more, they also need to

---



experience other activities that they ordinarily would not experience in their home and community environments. Such activities should include a good amount of physical activity for boys and girls through those sports which have clear rules to learn and in which children can assume different roles (Entwisle, Alexander, & Olson, 2001). Others note that the best programs should include a wide range of options, provide hands-on activities related to a thematic interest, and have an academic focus aligned with the work being done in the classroom (Pardini, 2001).

Meeting state standards with their accompanying benchmark requirements in the English Language Arts was another major issue of concern. City students at 4<sup>th</sup> and 8<sup>th</sup> grade levels had to write acceptable papers, in large part, based on interpretations and reactions to textual readings. This integrated reading/writing act was evaluated by the use of rubrics or scoring scales ranging from a level “1” as being inadequate writing to a level “4”, defined as being advanced writing proficiency. At “3” met acceptable standards for writing. For differing writing tasks, students had to address the writing criteria of meaning, organization, development, language use, and mechanics. New York City students performed quite poorly over the three years with 67%, 58%, and 56% of its 4<sup>th</sup> grade students achieving below acceptable writing standards (a level “2” or below). Eighth graders performed even more poorly with 65%, 67%, and 67% achieving below writing competency in the three-year span. The state commissioner of education had urged that all middle school classes concentrate on reading and writing with students reading at least 25 books a year and writing at least 1,000 words a month. (New York State Education Department, 2001). Ten-year old Rubin’s comments reveal that we were attaining this goal. He wrote, “Since my experience at St. John I haven’t read as many books as I have now so I thank St John for all the work and knowledge I have now.”

## **The Children Participants**

Children in the age range of seven to thirteen and who lived in the many housing development sites operated by the Authority (NYCHA) were eligible to participate in the program each summer. Younger children needed to have completed first grade. The NYCHA staff rotated the housing development sites each year so that one-quarter to one-third of the children had been in attendance in a previous year’s program.

During the summer of 2000, 1028 children from 25 housing project sites attended some or all of the 10 days of the two cycles; in 2001, 1094 children from 27 sites attended; and in 2002, 1078 from 24 sites attended the program. Each year from 110 to 249 children were bilingual in the Spanish language; from 112 to 140 children were in or had been in special education settings during the regular school year; from 55 to 76 children would enter second grade; and from 35 to 50 children would enter eighth grade. The majority; or roughly two-thirds, of each summer’s students were African American and would enter grades three to seven in the fall of the year.

## **The CampUs Organizational Structure**

Half a traditional school day, or three 45-minute periods, were devoted to literacy experiences while the second half of the day was spent in athletic and other learning activities such as swimming, soccer, tennis, basketball, and chess. In the nurturing climate of a university setting, NYCHA children were directly taught, coached, and mentored by pre-service teachers from the undergraduate programs of The School of Education and by student athletes enrolled in other university programs. Many of these undergraduates were eligible for federally provided work-study funds. This additional funding source



allowed the program developers to recruit more adults to serve as teachers and coaches so that small group configurations could be achieved in the classroom and on the playing fields. Additionally, the undergraduates served as important role models since many come from the same communities and neighborhoods as the children, and they exemplified how college life could become a reality for those who are economically disadvantaged but strive to do well in school.

Eight practicing teachers with advanced degrees in reading/literacy education and three certified computer teachers made up the key professional development and supervisory literacy staff. These teachers had served the project through a number of consecutive summers and were quite knowledgeable in training others to implement the program's approach. The teachers met in planning sessions from April to June of the year and refreshed themselves with the project books, reviewed new books related to the CampUs themes, selected and planned for software programs, and developed initial training lessons.

The 40 to 45 pre-service teachers recruited from the School of Education each year were trained a full two weeks prior to the children's arrival in classroom management techniques, conflict resolution, behavior management, and lesson preparation. They spent two days learning the children's software programs and four days with the veteran reading/literacy teachers. They previewed the books to be used by children, saw demonstrations of and practiced model lessons, planned concept and story map usage with particular readings, and learned how to assist children with written development by focusing on the qualities of writing indicated on the New York State writing rubric.

Each pre-service teacher, in turn, was assigned two groups of children with six to eight children in each group. During the morning block, they worked with a group in the 10 to 13-year-old range and in the afternoon time block they had a group in the 7 to 9-year-old range. Five pre-service teachers were also assigned to one reading/literacy teacher who acted as a coach and mentor during each project day. The veteran teachers circulated among their groups of five and observed the steps of lesson development, assisted with feedback, conducted model lessons for particular pre-service teachers needing assistance, and, at times, actually worked with a smaller set of children or a single child during the writing process.

## **The CampUs Literacy Plan**

To serve the mission interests of the four major partners and to provide guidance in helping children overcome the influences of inner-city risk factors we focused on three socially relevant themes. These themes asked children to become aware of the dangers of substance abuse (say NO to drugs, alcohol, and cigarettes), be a good person (be of good character at home, at school, and on the playing fields), and to show respect for the environment and community (don't litter and pollute).

In the children's literature selected to be used, we followed what Rudman (1995) likened to an "issues approach," in which problem situations found in stories mirror what actually occurs for people in society. Often known as the practice of "bibliotherapy," an issues approach offers a way to provide guidance and protection through story reading. Such a thematic focus helps teachers and students think about meaning while promoting positive attitudes towards the very acts of reading and writing (Burns, Roe, & Ross, 1999). Eight-year old Elissa wrote, "On the first day of classes I learned so much. Not to take drugs, and be respectful to each other, and to follow rules in other classes. I even learned to put effort into your work, and to try your best on everything."

While engaging in the themes, we also sought to support the State Commissioner's request regarding increased reading and writing interactions while assisting children with strategies that would help them in the formal arena of schooling in the fall. Our approach became known as the 6Rs – Read, Reason, Retell/Reconstruct, Rubric, (w)Rite, and Revise. The approach coordinated the efforts of the



veteran and pre-service teachers while supporting the messages of the three program themes. It was based on a series of six interconnecting, cumulative steps aimed at promoting development in the four domains of the language arts and visual representation. It supported the New York State Performance Standards in that children read a number of books, read about issues or topics in which they had to produce evidence of understandings, wrote responses to literary works and learned to use narrative procedures, and created a multimedia computer project in which they had to write, format, gather, and organize information (Board of Education of the City of New York, 1997, 2001).

The 6Rs steps integrated many of the components of a balanced literacy framework in that viewing, listening, speaking, reading, and writing were featured as children and teachers engaged in shared reading/shared writing and guided reading/guided writing as they worked through differing text styles (Fountas & Pennell, 1996, 2001). Furthermore, vocabulary developed out of the textual readings, and students had many opportunities to practice and apply their new word knowledge in active ways through writing activities of both the narrative and informational styles (Rupley, Logan, & Nichols, 1999). Ten-year old Andrew expressed his belief about becoming a better reader by writing “My reading got better because I read books with bigger and more challenging words.”

The literacy work was accomplished in two settings. One was a traditional school setting in which the small groups of children were taught and mentored by the pre-service teachers during a 90-minute block each day. The second was held in one of three computer labs for an additional 45-minute period. Here children completed individually generated computer projects under the supervision of the computer teacher, lab assistants, and the pre-service teachers who accompanied their small groups to the larger lab.

## **The 6Rs Steps**

**Read:** Reading – The first “R” in the approach – was managed by the use of small collections of trade books, often known as text sets, and were strategically used by teachers as they reinforced the three major themes of the program. Research has shown that addition of trade books in a language arts program, helps in the development of oral language and reading ability, assists in vocabulary acquisition, and increases children’s motivation to read in school settings and at home (Galda & Cullinan, 1991). Trade books are also packaged in attractive formats, which make them easy and “user friendly” to offer children in a summer educational climate.

We used fiction and non-fiction trade books on a daily basis as the “magnifying glass” vehicle to enlarge and enhance the children’s interactions with the messages of the three themes (Vacca & Vacca, 2002). Of the 34 books previewed and selected to be used as small group text sets, 22 related to the character development theme, 6 to the substance abuse theme, and 6 to the respecting the environment theme. The veteran teachers further categorized the books by those appropriate by reading level and content for younger children (7 to 9 year olds), older (10 to 13 year olds), and for students from other cultures learning a second language. The character development books were all children’s literature and picture books in the narrative, story tradition while informational books as well as storybooks were found in the other two groupings. Because many of the children were still beginning readers such as those who had just completed first grade, were English language learners, had been or were in special education settings, a read aloud was generally accomplished first, followed by a second, shared oral reading before they were lead through the text reasoning and reconstruction processes.

Wide and varied readings became a major way to increase the children’s meaning and reading vocabularies (Gunning, 2002; Ryder & Graves, 2003). Because each book offered a rich source of words, new words were added each day to growing lists of theme words. The new words were most often printed



on five by eight cards and mounted on a “word wall” under the appropriate theme heading. Both the thematic book readings and vocabulary reinforcements were aimed at organizing the children’s knowledge of concepts and to help them see the relevance of information so that they would gain what Gunning calls, “principled understandings” (2003). Twelve-year old Brice expressed these knowledge connections in the following way,

My favorite experice at Campus is being in the classroom. In the classroom we get to read. We don’t read about anything. We read about important things. For example the Enviornment and how to keep it clean. Staying drug free, and good character. Also when reading I learn new Campus vocabulary words.

In the classroom we also write. During writing we use the vocabulary words that we learn in readings. To help us plan our writing we use maps. This we do as a class. After we write we do a project based on the story. I really like the classroom because it helps me to explore and expand my mind. This all happens with the help of my teacher & classmates.

**Reason.** During reasoning, teachers engaged children in thinking and feeling about the text and its message. Questioning and verbal discussion occurring during and after the reading made this step very lively. Children interacted freely with the text, the teacher, and one another as they talked about book ideas, new vocabulary, the relationship to the theme, and their personal reactions to meaning. Here we applied the three levels of thinking about a reading-experiencing, connecting, and extending - as noted by Finders and Hynds (2003). They experienced the reading through the pictures, words, and images aroused by the text; they connected the reading to impressions in their lives regarding substance abuse, what makes a good person, and the local environment issues of littering and pollution; and they began to think about how they would extend the text reading into a graphic map format, a writing, an artistic project, or in a computer project.

**Retell/Reconstruct.** The thinking and reasoning processes involved in the “retelling” and “reconstructing” aspects of the plan made use of the visual representation of ideas through “maps.” Concept and story maps, also known as semantic maps, webs, clusters, and graphic organizers, served as a major program strategy to help children formulate and organize their ideas after reading and before and during writing. Teachers moved students smoothly into retellings and reconstructions of stories and informational readings by verbally engaging students in map construction. Information based on the reading was written within the graphic figures either by the teacher who elicited this information during verbal discussion or by the children themselves as they puzzled out the sequence of events or the concepts and ideas of the text and wrote them into the figures on the map.

Researchers have reported that students with and without learning problems have improved in reading comprehension and planning for writing when they have been shown how text ideas are organized in narrative and expository readings and when they have been provided with visual models of text organization (Davis, 1994; Swanson & DeLaPaz, 1998; Vallecorsa & deBettencourt, 1997; Wong, 1997). Many of the studies in the literature also reported positive effects of concept map use for vocabulary and reading comprehension development when small groups of children and youth were taught in controlled settings (Boyle 1996; Englert & Mariage 1991). Furthermore, providing writers with visual frameworks of text organization gives them a framework for producing, organizing, and editing compositions and has a positive influence on report writing (Englert, Raphael, Anderson, Anthony, & Stevens, 1991; Wong, 1997).

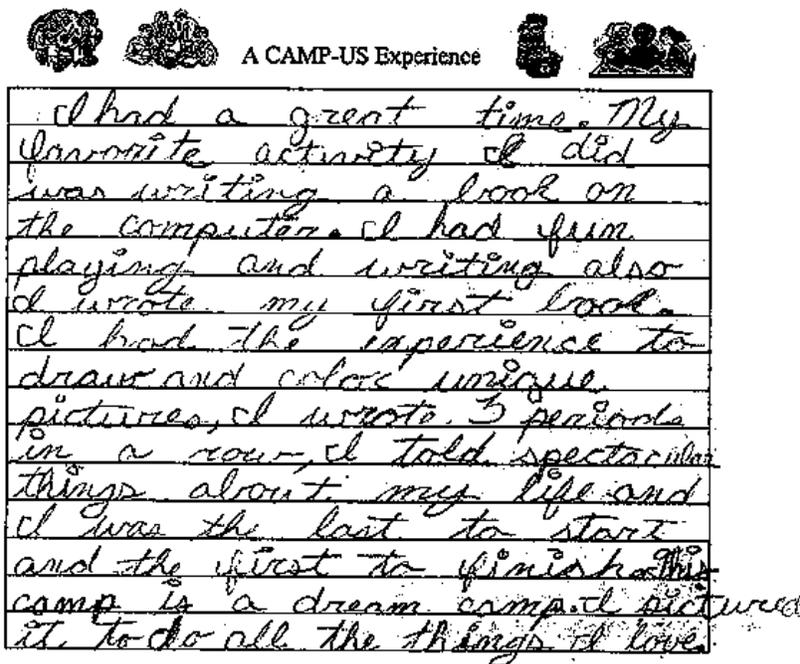
---



Teachers used differing map structures that represented how various reading and writings were organized. The maps used with literature or story readings reflected the common story grammar features of character(s), plot, setting, problems faced by the main character, outcomes or consequences, resolution, and theme. These maps generated a retelling of a story’s events as sequencing and causal interactions were the notations that children wrote down. The maps used with expository, informational readings reflected cause and effect, sequential, compare and contrast, and topic development text patterns and had been used successfully in other large-scale literacy projects to boost reading and writing achievement (Cronin, Barkley, & Sinatra, 1992; Cronin, Meadows, & Sinatra, 1990; Sinatra, 2000; Sinatra & Pizzo, 1992). These maps helped children reconstruct information from a textual reading by allowing them to see the connections among ideas and concepts and by relating details and new vocabulary appropriately.

**Rubric.** The mapping step was followed by a discussion about writing and how reading can provide a number of ideas to develop in writing. Children were then presented with the qualities of writing and the four-point weighting scale of the state rubric scoring system. The components of the rubric were written in a more “user friendly” way for children, and 20 large copies of the children’s rubric were made and hung in each of the project’s classrooms. Teachers and students discussed what features of writing would make a good paper as they viewed the rubric, and children would return to look at the rubric as they engaged in the on-going writing or revision processes.

**(w)Rite.** Writing and planning for writing after reading and mapping became a central feature of the 6Rs approach. We believed that the benchmark standard of writing an acceptable paper and thinking deeply about a topic was a task of worth and value. The ability to write well has long-term significance in school, career, and professional life. Wolf and White (2000) likened such a benchmark performance as the writing of a report to a “valued” performance, which does not attempt to address meeting each and every individual standard but represents a rich performance based on in-depth learning that occurs over time. The richness achieved through writing is best reflected in 9-year-old Waakeema’s paper:





Children wrote their own individual papers while viewing either a group-constructed map or their own filled-in map as they were reminded of the qualities of writing noted in the displayed rubric. Project teachers interacted freely with the children as they wrote often answering questions posed by the children about their writing, such as “Does it sound good?” or “Is this correct?” After teacher interaction and revision suggestions, a rewriting was accomplished. Nine-year old Alicia showed what she felt about writing as she wrote:

My Reading and writing got a lot better, and I cant believe only in 2 weeks. I fixed my writing mistakes, and spelled words correctly. I also read a lot so I practiced the words I could not read. Thank you St. Johns.

**Revise.** The rewriting was, more often than not, accomplished by a highly motivating, visual and artistic activity that connected to the meaning of the book. For instance, with the book *Playing Right Field* (Welch, 2000) aligned to our character development theme, young children constructed a “pop-up book.” On the accordion panels of a folded strip of paper to which a paper ball was attached on one end and a paper baseball glove on the other, children wrote their episodes of the right fielder’s story. For older children, the culminating writing activity of completing the 6Rs steps with the fiction book *The Other Side* (Woodson, 2001) was rewriting the story on panels on a cut-out picket fence. The fence represented the divide between a black and white neighborhood, and the setting where two young girls of different races overcome the barriers set by the segregation climate of the times. For *The Great Kapok Tree* (Cherry, 2000), children wrote their version of what the animals told the young man about the dangers of deforesting on tree leaves and then hung their “leaves” on a drawing of a large tree constructed on chart paper.

Once revision and editing were completed, children would share their reading with a buddy or the whole group with the paper finally becoming displayed on the classroom wall under the appropriate theme title. Children completed from four to seven papers based on the readings of differing trade books and the use of the differing map organizational plans. Young children and level 1 writers would generally produce a paragraph-length paper but teachers worked on elaborating content details, on how to expand sentences and transform phrases and clauses to achieve sentence variety, and on the construction of good “topic sentences” that would introduce paragraphs. The reading, mapping, and writing process of the 6Rs steps supported and built upon one another. The literacy engagement was cumulative and recursive in that written products were visible outcomes of each trade book reading and the cycle began again with the new offering of a trade book related to another theme. With this approach, children’s expectations were that reading, reconstructing, writing, and revision, were connected as one unifying event. As noted by Piazza (2003) a “routine” was established that writers became accustomed to in their expectations and requirements.

**Computer Project.** This expectation and routine continued in the computer lab, where children worked on a multi-media project using either the HyperStudio or the KidWorks Deluxe software programs. Each of these programs allowed children to author, to use visuals and illustrations, to link to Internet informational resources, and to accomplish appealing page/screen lay-outs. A four-point scoring rubric was generated to evaluate each child’s computer project with a focus on the five qualities of project completeness in exemplifying a CampUs theme, organization and structure, originality, graphical presentation, and written presentation. Nine-year old Marvin wrote,



My favorite experience was when I went to computer class. Mr. Dan asked me to pick a topic. Either Environment, choices or character. I picked Environment. My topics were recycling, Drugs, cigarettes, and what happens to alcoholics and ending species. When I finished my topics, I went on to the internet to support my topics. After I supported my topics, I drew pictures that went with my topics. Then after that, I went over my work, and gave it better vocabulary. After that, I read it one more time just in case and I gave it better font. Finally I saved it on my floppy disc and I finished and Mr. Dan gave me my disc.

To help children accomplish a more thoughtful and rich project in the short period of time, computer teachers found it wise to initiate the project with a two-page planning worksheet that supported the 6Rs steps. The worksheet helped students integrate their prior knowledge, plan where they were going, and guided them with the composing steps of the writing process. After a teacher-lead discussion of the meaning of each of the themes and how they might be addressed, children followed these planning steps: (1) they selected an aspect of a theme to investigate; (2) they generated an idea web or concept map of the components of the theme idea that were known at the present time; (3) they constructed an outline of how screens might be planned based on the number of concept ideas shown on the map; (4) they linked the outline to Internet sites related to the three themes provided by the teacher and began to gain information and take notes; and (5) they wrote their initial scripts for each screen or card, incorporating their notes and possible ideas of visuals that would complement the text.

### **Program Effectiveness**

We wished to determine if both the 6Rs approach and the selection of readings affected the children's abilities and attitudes. We accomplished this informal evaluation: (1) by comparing the results of two papers on the topic of telling about a favorite experience written at the beginning and end of each program cycle; (2) by determining whether children actually used a map prior to writing their exit paper and if they did use a map, did the map express the reasoning, the logic of the paper they wrote; (3) by determining whether the writing score on their computer project rubric correlated with the overall writing score on their exit paper; and (4) by evaluating the written responses made by children to five questions as they exited each cycle.

Prior to the project in May 2000, the literacy teachers participated in training sessions regarding the scoring of student papers using the comprehensive, five quality scoring rubric. Then papers were collected from nearby community schools of students from grades two through eight. All students wrote on the same topic – to tell about a favorite experience. Through a procedure of multiple correlation among all teacher-raters, an overall inter-scorer phi-coefficient of .860 was established (Anastasi, 1988). This rather high correlation of inter-rater reliability meant that the veteran teachers who would score children's papers in the CampUs program were of a close mindset as they evaluated the qualities of writing from similar grade-level students.

Many children were able to improve their writing scores when the initial and exiting papers were analyzed. Over the three-year period we found that from 58 to 63 percent of the children improved with a .26 to .30 gain in writing ( $p < .000$ ), that from 14 to 17 percent duplicated both scores, and from 21 to 28 percent decreased in writing as evaluated by the four-point scale. Results for Spanish bilinguals and children identified as those needing special education services were most heartening as significant increases in writing occurred. The 478 Hispanic children increased in a range from .33 to .40 points, and the 287 children receiving special education services increased by .23 to .40 rubric points in the three-year



period. These comparison results were not based on a control group rationale but on expected levels of achievement found in historic patterns or standards of reasonableness. According to Pogrow (1999) consistency of gains and achievement provide a much more relevant, fairer, and practical way for practitioners to predict whether a particular program approach is likely to produce consistent gains in their educational settings.

When asked to do so before writing their exit papers, from 92 to 98 percent of the children planned how to write their papers by using one of the project maps. Of these percentages, the literacy teachers felt that from 68 to 79 percent of the maps selected to be used to plan for writing were appropriate in matching children's organizational plans of their written papers.

The scores on the computer projects revealed a general tendency that as children increased in grade level their projects indicated more completeness, organizational structure, artistic and written presentation, and originality. For instance, for the 2002 year, 21 second graders had an average rubric score of 2.69 while 22 eighth graders had a mean score of 3.80. When the children's exit writing results were compared against the written presentation component on the computer rubric, a significant correlation was observed for each year. While the observed coefficients were small, it does appear that a relationship exists by engaging in writing by computer and writing with paper and pencil.

An analysis of the children's written responses to questions asked at the end of each cycle indicated that they internalized many of the major objectives of the program and were able to express these in writing. For instance when asked to "tell about some of the things they learned," 536 children wrote that they learned about the dangers of drugs, alcohol, and smoking; 231 learned how to use computers; 228 learned about how to keep the environment clean; 252 learned how to write better; 192 learned how to read better; 149 learned how to use maps; and 258 learned about respect and teamwork. When asked to tell about "how their writing got better", 499 children indicated that they wrote and practiced writing a lot; 235 learned to use maps and to organize; 135 learned new vocabulary; 425 learned grammar, spelling, and how to write neatly; and 88 learned to add details. When asked if "mapping helped them plan to write a better paper", 435 wrote that mapping helped them organize their ideas and writing; 281 said mapping gave them ideas to think about before writing; and 104 said that they could understand what they were writing about. Yet when asked "what activities did you like the best," swimming achieved a 971 score and computers a 380 score while reading scored 154 and writing 123.

## **Discussion and Conclusion**

The use of story and concept mapping was a key strategy for the organization of textual ideas and was supported by the verbal and map-building interaction in the small grouping patterns. The pre-service teachers guided students to translate narrative structure and concepts from readings into visual graphic arrays thereby creating blueprint plans of the reading to be followed by a written retelling, reconstruction, or summary. Use of such maps in which readers construct mental representations of print ideas supports three of the seven National Reading Panel's (2000) recommendations to improve reading comprehension: (1) by mapping graphic representations of the material being read; (2) by learning the structure of stories as a means of remembering story content, and (3) by summarizing to integrate and generalize ideas gained from text.

We also found that the mapping and note taking steps off computer to be extremely important in the overall success of each child's multi-media project because a mind set was provided for each individual student of where he or she is going with the project. For instance, sixth grade Jose selecting the good character theme, included these major idea topics on his concept map to be developed in



forthcoming “cards,” “respecting others, helping people, listening to show respect, controlling anger, no bullying, and finding peaceful solutions to problems.”

Children also reported in their writing that they learned from the short but intensive program. They indicated they did read, map, write, used computers, and learned about the dangers of drugs, alcohol, and smoking. They indicated that their writing became stronger because they practiced it a lot and that they used maps to organize their ideas gained from reading before they write. The significant correlation between the ability to construct an appropriate map and improvement in the quality of the overall written essay supports a view of writing as a cognitive act. That is, as children integrated and connected their ideas, their written products improved across all dimension of the qualities of writing as indicated on the rubric.

We strongly believed, as do others, that when students write, they learn the “big ideas” and “enduring understandings” which connect broad bands of knowledge and processes and, which can live on the mind to be applied in future learning (Kameenui & Carnine, 1998; Wiggins & McTighe, 1998). Furthermore, because reading and writing were connected in tandem in the 6Rs steps, the bond established between both influenced learning in ways not possible when either one was used alone (Vacca & Vacca, 2002). Yet we questioned whether the children would actually use the “6Rs” plan when they returned to school in the fall of the year and whether they would apply the underlying messages of the program themes. Would they transfer the procedure of mapping to writing to revising after the reading of a story or informational text as a strategic thinking activity by themselves? With knowledge about mapping is an aid to help them understand text, would they readily seek out their teachers’ help in their respective schools knowing that such practice may help them write better as well? Moreover, would reading and writing themselves be viewed as valuable mental activities? While we felt very positive about the children’s literacy achievements in the two-week period and believed that we educated them about the dangers of substance abuse, we could see the benefits of a longer time period and follow-up during the regular school year to determine if our plan and methodology become internalized to make a difference in their lives.

### **Children’s Books Cited**

- Cherry, L. (2000). *The great kapok tree*. New York: Vanguard Books.  
Welch, W. (2000). *Playing right field*. New York: Scholastic.  
Woodson, J. (2001). *The other side*. New York: G.B. Putnam’s Sons.

### **Web Sites for After-School Information**

- [www.afterschoolalliance.org](http://www.afterschoolalliance.org)  
[www.afterschoolallstars.org](http://www.afterschoolallstars.org)  
<http://www.publicengagement.com/AfterschoolSummit/>  
[www.tascorp.org](http://www.tascorp.org)

### **Web Sites for Software Programs**

- [www.hyperstudio.com](http://www.hyperstudio.com)  
[www.education.com/teachspace/schoolsoftware.jsp](http://www.education.com/teachspace/schoolsoftware.jsp)



---

## References

- Anastasi, A. (1988). *Psychological testing*. New York: Macmillan.
- Board of Education of the City of New York (2001). *Performance standards, first edition: Applied learning*. New York City: Author.
- Board of Education of the City of New York (1997). *Performance standards, New York: First edition*. New York City: Author.
- Borman, G. (2001). Summers are for learning. *Principal, 80*, 26-29.
- Boyle, J. (1996). The effects of a cognitive mapping strategy in the literal and inferential comprehension of students with mild disabilities. *Learning Disability Quarterly, 19*, 86-98.
- Burns, P.C., Roe, B.D., & Ross, L.P. (1999). *Teaching reading in today's elementary schools* (7<sup>th</sup> ed.). New York: Houghton Mifflin.
- Cronin, H., Sinatra, R., & Barkley, W.F. (1992). Combining writing with text organization in content instruction. *NASSP Bulletin, 76*, 34-45.
- Cronin, H., Meadows, D., & Sinatra, R. (1990). Integrating computers, reading and writing across the curriculum. *Educational Leadership, 48*, 57-62.
- Davis, Z.T. (1994). Effects of pre-reading story mapping on elementary readers' comprehension. *Journal of Educational Research, 87*, 353-360.
- Englert, C.S., & Mariage, T.V. (1991). Making student partners in the comprehension process: Organizing the reading "POSSE." *Learning Disability Quarterly, 14*, 123-138.
- Englert, C.S., Raphael, T.E., Anderson, L.M., Anthony, H.M., & Stevens, D. (1991). Making strategies and self-talk visible: Writing instruction in regular and special education classrooms. *American Educational Research Journal, 28*, 337-372.
- Entwisle, D.R., Alexander, K.L., & Olson, L.S. (2001). Keep the faucet flowing. *American Educator, 25*, 10-15 & 47.
- Finders, M.J., & Hynds, S. (2003). *Literacy lessons: Teaching and learning with middle school Students*. Upper Saddle River, NJ: Merrill/Prentice Hall.
- Fountas, I.C. & Pinnell, G.S. (2001). *Guiding readers and writers, grades 3-6: Teaching comprehension, genre, and content literacy*. Portsmouth, NH: Heinemann.
- Fountas, I.C. & Pinnell, G.S. (1996). *Guided reading: Good first teaching for all children*. Portsmouth, NH: Heinemann.
- Galda, L. & Cullinan, B. (1991). Literature for literacy: What research says about the benefits of using trade books in the classrooms. In J. Flood, J. Jensen, D. Lapp, & J. Squire (Eds.), *Handbook of research on teaching the English language arts* (pp. 529-535). New York: Macmillan.
- Gunning, T.G. (2002). *Assessing and correcting reading and writing difficulties* (2<sup>nd</sup> ed.). Boston: Allyn & Bacon.
- Hawkins, J.D., Catalano, R.F., & Miller, J.Y. (1992). Risk and protective factors for alcohol and other drug problems in adolescence and early childhood. *Psychological Bulletin, 112*, 64-105.
- Kameenui, E. & Carnine, D. (1998). *Effective teaching strategies that accommodate diverse learners*. Upper Saddle River, NJ: Merrill.
- King, F. & Kobak, J. (2000). *CIM Academy summer school: A report of the evaluation of the 2000 summer school*. Portland, OR: Portland Public School. Research, Evaluation and Assessment Unit.
- National Reading Panel (2000). *Teaching children to read: An evidence-based assessment of the scientific literature on reading and its implications for reading* Bethesda, MD: National Institute of Child Health and Human Development (NIH).
-



- New York State Education Department (December 2001). *School executive's bulletin*. Albany, NY: Office of Elementary, Middle, Secondary, and Continuing Education.
- Office of Juvenile Justice and Delinquency Prevention (1998). *Juvenile mentoring program: 1998 report to congress*. Washington, DC: U.S. Dept. of Justice. Office of Juvenile Justice and Delinquency Prevention.
- Piazza, C.L. (2003). *Journeys: The teaching of writing in elementary classrooms*. Upper Saddle River, NJ: Pearson.
- Pogrow, S. (1999). Rejoinder: Consistent large gains and high levels of achievement are the best measures of program quality: Pogrow responds to Slavin. *Educational Researcher*, 28, 24-31.
- Rudman, M.K. (1995). *Children's literature: An issues approach* (3<sup>rd</sup> ed.). White Plains, NY: Longman.
- Rupley, W.H., Logan, J.W. & Nichols, W.D. (1999). Vocabulary instruction in a balanced reading program. *The Reading Teacher*, 52, 336-346.
- Ryder, R.J., & Graes, M.F. (2003). *Reading and learning in content areas* (3<sup>rd</sup> ed.). San Francisco, CA: Wiley/Jossey-Bass.
- Sinatra, R. (2000). Teaching learners to think, read, and write more effectively in content subjects. *The Clearing House*, 73, 266-273.
- Sinatra, R., and Pizzo, J. (1992). Mapping the road to reading comprehension. *Teaching pre-K-8*, 23, 102-105.
- Swanson, P.N. & DeLaPaz, S. (1998). Teaching effective comprehension strategies to students with learning and reading disabilities. *Intervention in School and Clinic*, 33, 209-218.
- Vacca, R. & Vacca, J. (2002). *Content area reading: Literacy and learning across the curriculum*. Boston: Allyn and Bacon.
- Vallecorsa, A.L. & deBettencourt, L.U. (1997). Using a mapping procedure to teach reading and writing skills to middle grade students with learning disabilities. *Education and Treatment of Children*, 20, 173-188.
- Viadero, D. (2000). Lags in minority achievement defy traditional expectations. *Educational Leadership*, 46, 6-11.
- Wiggins, G. & McTighe, J. (1998). *Understanding by design*. Alexandria, VA: Association for Supervision and Curriculum Development.
- Wolf, D.P., & White, A.M. (2000). Charting the course of student growth. *Educational Leadership*, 46, 6-11.
- Wong, B.Y.L. (1997). Research on genre-specific strategies for enhancing writing in adolescents with learning disabilities. *Learning Disability Quarterly*, 20, 140-159.
- U.S. Department of Education, Office of the Under Secretary (2003). *When schools stay open late: The national evaluation of the 21<sup>st</sup> century community learning centers program, first year findings* (Electronic Version). Washington, DC: Author. Retrieved April 19, 2004, from [www.ed.gov/pubs/21cent/firstyear](http://www.ed.gov/pubs/21cent/firstyear).
-