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Manuscripts should be original works not previously published nor concurrently submitted for publication to other journals. Manuscripts should be written clearly and concisely for a diverse audience, especially educational professionals in K-12 and higher education. Topics appropriate for *The Journal of At-Risk Issues* include, but are not limited to, research and practice, dropout prevention strategies, school restructuring, social and cultural reform, family issues, tracking, youth in at-risk situations, literacy, school violence, alternative education, cooperative learning, learning styles, community involvement in education, and dropout recovery.

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Literacy Success With Homeless Children

Richard Sinatra

Abstract: *This paper discusses a comprehensive outcomes-based approach implemented over four summers with 240 homeless children residing in transitional facilities of the New York City Department of Homeless Services. Children and young adolescents were bused to a college campus for 10 days over a three-week period. This program, perhaps the first of its kind to address the limited research in the homeless children literature, offered a sustained, coordinated literacy approach called the 6Rs to these homeless children in a supplemental school setting, measuring student outcomes. The use of dependent sample t-tests to compare mean scores of student's pre- and post-writings based on a four-point rubric scale revealed that scores improved significantly for each cohort. Students in the fourth-year cohort also achieved significance in the category of progress on a Reader Self-Perception Scale.*

Homelessness with its accompanying high mobility and relocation is on the rise across America. For homeless children, residence instability, school changes, excessive absenteeism, and transportation issues present major educational challenges beyond those experienced by the residential school population (Books, 2004; Gibbs, 2004; Moskowitz, 2004; Swick, 1999). A thorough review of two major data bases revealed limited research on the issue of homeless children and academic interventions in literacy: two studies compared the behavior and reading performance of homeless children to housed children (Rubin et al., 1996) and homeless children to other low-income children (Ziesemer, Marcoux, & Marwell, 1994); three articles discussed positive interventions such as homework assistance (Davey, Penuel, Allison-Tant, & Rosner, 2000), a career- oriented approach (Gibbs, 2004), and a modified comprehensive school environment established solely for homeless students (Mawhinney-Rhoads & Stahler, 2006).

This study addresses this lack by presenting quantitative and qualitative data relative to the writing and reading achievement of homeless students in a literacy-focused intervention program. This comprehensive program approach was implemented for 10 days over a three-week period with cohorts of New York City homeless children and young adolescents over four consecutive summers. It may be the first of its kind to offer a sustained, coordinated approach to homeless children in a supplemental school setting and to measure student outcomes.

The Issues and Alliances

The cycle of movement, instability, and school absenteeism causes a ripple effect in the educational life of homeless children placing them at risk for learning and literacy success (Bartlett, 1997). They face new school administrative climates, new teachers with new expectations, new peer groups who are often unsympathetic to their conditions, and new entry points in the various school curricula (Anooshian, 2003; Gibbs, 2004; Vissing, 2003). They may enter content topics without the requisite background knowledge and the accompanying vocabulary necessary to understand them. In New York City alone, homeless children perform well below in reading and math, approximately 25% repeat a grade, and many are placed unnecessarily in special education classes (Institute for Children and Poverty, 2003; Rubin et al., 1996).

For the research reported here, private and public organizations collaborated to provide a supportive, nourishing program for these children. The After-School All-Stars (ASAS) of New York City, Inc., a chapter of the Arnold Schwarzenegger Youth Foundation, and St. John's University, reflective of its Vincentian tradition to reach out to the poor and disadvantaged, formed an alliance to accomplish the scope and design of the program. The Laureus Sport for Good Foundation provided most of the funding; the New York City Department of Education bused in a breakfast snack and lunch; and the City University of New York (CUNY) offered two campus sites with excellent swimming pool facilities.

Success using a program approach was previously achieved when thousands of New York City Housing Authority children were bused to a college campus from their many housing project sites (Blake & Sinatra, 2005; Sinatra, 2004). As a result, these children experienced stability of residence and an uninterrupted school schedule during the regular school year. Our intent with the homeless children involved in the study reported here, given their high degree of mobility, school absenteeism, and bus-related problems, was to replicate the same type of scheduled program with a consistency in activities and teaching.

Background and Research-Informed Principles

We believed, like many others, that active participation in summer and other out-of-school-time programs could lead to many benefits for children, particularly for those economically disadvantaged and educationally undernourished (Bracey, 2002a; Franklin, 2004; Gerber, 1996; Zaff, Moore, Papillo, & Williams, 2003). Four conceptual and research-related principles guided the development of our program design. The first was related to the phenomenon of summer loss. Research has documented that during the summer months of June through August, disadvantaged and poverty-situated children lose academic and learning gains when compared to their more economically advantaged peers (Alexander, Entwisle, & Olson, 2001; Allington & McGill-Franzen, 2003; Borman & Boulay, 2004; Bracey, 2002b). A analysis of 39 studies concluded that low- and middle-class students lost approximately three months in reading and language achievement during the summer months (Cooper, Nye, Charlton, Lindsay & Greathouse, 1996). Yet Kim (2004) found that the reading of four or five books during the summer had the potential to prevent reading achievement loss from spring to fall.

A second perspective focused on the type of program day offered to these children. Because of their nomadic and disruptive lifestyle, they may not have participated in organized sports activities with team interaction and they may not have had ample opportunity to work on computers. While 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, specifically activities requiring physical exertion, the learning of rules, the changing of roles, and development by coaches and mentors (Entwisle, Alexander, &Olson, 2001).

The third involved the children and young adolescents themselves and the dynamics of their school situations. Social isolation, rejection, school indifference, and peer victimization are a common thread throughout the literature about homeless children (Anooshian, 2003; Gibbs, 2004; Mawhinney-Rhoads & Stahler, 2006; Swick, 1999; Vissing, 2003). Like the types of educational reform approaches reported by Mawhinney-Rhoads and Stahler (2006), we wished to develop an environment designed to reduce the educational and social setbacks experienced by these children.

The final area of consideration was related to the structure of the academic half day. We wanted to provide children with resources and strategies that would assist them in the larger school arena when they returned in the fall. For this study we fused three major literacy components regarding what and how children read, how they translated what they read into organized plans in preparation for writing, and how children wrote to meet acceptable standards. In an effort to influence homeless children in a positive way and to provide guidance in helping them overcome the influences of inner-city risk factors, we focused the readings in both the classroom and computer lab settings on the three socially relevant themes of the dangers of substance abuse, bullying and good character, and respecting the environment and community.

The writing component was based on the use of story and concept maps. 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 the positive effects of concept map use for vocabulary and reading comprehension development with small groups of children and youth taught in controlled settings (Bos & Anders, 1990; Boyle, 1996; Englert & Mariage, 1991).

Our emphasis on helping children write coherent papers was to assist them in meeting the New York State Assessment requirements and the English language arts and technology standards. These standards included (a) the engagement of children in wide and varied readings; (b) the discussion of and the production of written papers and computer projects about issues or topics in which they had to exhibit evidence of understanding; and (c) the creation of 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).

Students at fourth and eighth grade levels also had to attain "benchmark standards" by writing acceptable papers based on responses to textual readings. This integrated reading/writing act was evaluated using the New York State rubric criteria. The scoring ranged from Level 1 meaning "inadequate writing," Level 2 indicating "below acceptable writing standards," Level 3 revealing "acceptable standards for writing," to Level 4 described as being "advanced writing proficiency." For different writing tasks, students needed to address the writing criteria of meaning, organization, development, language use, and mechanics. New York City students had performed poorly over the four-year period with 67%, 58%, 56%, and 53.5% of its fourth graders achieving below Level 2 and 65%, 67%, 67%, and 70% of its eighth graders performing similarly.

Program Participants

Children and youth residing in transitional facilities operated by the NYC Department of Homeless Services (DHS) attended the program over the last four years at one of our partner campuses. Factors typically affecting the children of families entering the shelter system include the loss of employment and public benefits, formal and informal eviction, domestic violence, instability of family life, health-related problems, substance abuse, and family death (Smith, Flores, Lin, & Markovic, 2005). We began experimentally during the first summer with 70 children between the ages of 9 and 11 residing at three DHS facility sites in the Borough of Brooklyn. Of that number, only 45 children attended enough days to have pre- and post-test data recorded. Thus, we learned that even with busing directly from the facility, attendance became compromised as families relocated from shelters to permanent housing, as other scheduled programs and activities were offered by the local centers, and as children health issues took precedence in the form of medical appointments. However, in spite of the problems with sustained attendance, we expanded the program to include more DHS children from other borough facilities based on strong first year outcomes supplemented by positive encouragement by the DHS facilities directors.

During the next three years, 104 to 126 children from four to six facility sites located in the New York City boroughs of Brooklyn, Manhattan, and the Bronx attended the program. They ranged in entering grade levels from second to ninth, were primarily African American or Hispanic, and were generally equally balanced by sex. Each year 10 to 23% reported that they had repeated a grade in school; 21 to 34% reported that they had been placed in a special education setting; and 7 to 41% reported that they were English language learners. Because families were being relocated from facility sites to permanent housing within a nine-month period, we served a new group of children each summer.

The Program Structure and Staff

The program featured academic and athletics with full-day participation in rotating time blocks. Two periods (90 minutes) were devoted to small group reading and writing instruction as aligned with the standards; one period (45 minutes) involved working on a reading, writing, and graphic design project in a college computer lab; and three periods (2 hours and 15 minutes) were spent learning how to swim and participating in other athletic activities of choice.

In the nurturing climate of a college setting, the homeless children were directly taught, coached, and mentored by veteran and pre-service teachers from The St. John's University School of Education and by student athletes enrolled in its other university programs. Many of the undergraduates served as important role models as many come from the same communities and neighborhoods as the children, thus exemplifying how college life could become a reality for those who are economically disadvantaged but strive to do well in school. They were trained a full two weeks prior to program implementation in management techniques, conflict resolution, behavior management, and lesson preparation. The pre-service teachers spent two days learning the children's software programs and four days with veteran reading/literacy teachers. They previewed the books to be used by the children, practiced model lessons, planned concept and story map use for particular readings, and learned how to assist children with written development by focusing on the qualities of writing indicated on the state writing rubric.

Each pre-service teacher was assigned two groups of six to eight children. During the morning block, they worked with a group in the 10- to 14-year-old range and in the afternoon time block, with a group in the 7- to 9-year-old range. The pre-service teachers were also assigned to one veteran literacy teacher who acted as a coach and mentor during each project day. The veteran teachers circulated among their groups of pre-service teachers, observed the steps of lesson development, assisted with feedback, and conducted model lessons. This strategy was based on previous research suggesting that for needy and struggling students, small group size and a limited number of groups coupled with good intensive instruction increase the likelihood of program success (Allington, 2006; Cooper, Charlton, Valentine & Muhlenbruck, 2000).

The Literacy Component

The literacy component was research informed and theoretically based, highly supportive of state standards, and cohesive in its daily approach. We called it the 6Rs—Read, Reason, Retell/Reconstruct, Rubric, (w)Rite, and Revise. Featuring a series of six interconnecting, cumulative steps, this approach promoted development in the four domains of the language arts and visual representation. We structured the two half-day components so that a predicable pattern of stability and consistency would occur daily.

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 & Pinnell, 1996, 2001). Furthermore, vocabulary was expanded through the textual readings, and students applied their new word knowledge in active ways through writing activities (Rupley, Logan, & Nichols, 1999).

Read

Reading—The first "R" in the approach involved the strategic use of small collections of fiction and nonfiction trade books, often known as text sets, as the teachers reinforced the three major themes of the program. Of the 37 books previewed and selected to be used as these small group text sets, 23 related to the bullying and character development theme, six to the substance abuse theme, and eight to the respecting the environment theme. Because we believed that many children were still struggling readers, were English language learners, or had been or were in special education settings, a read aloud was generally the first step, followed by a second shared oral reading before the students were led through the text reasoning and reconstruction processes.

The readings provided a way to increase the children's meaning and reading vocabularies. New words were 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 helping them to see the relevance of information (Gunning, 2003).

Reason

During reasoning, teachers engaged children in thinking about and feeling the text and its message. Questioning and verbal discussion 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 the meaning.

Retell/Reconstruct

The thinking and reasoning processes involved in the retelling and reconstructing aspects of the plan made use of the visual literacy 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 them in map construction. Information based on the reading was written within 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 in the figures on a map.

Teachers used differing map structures representing how various reading and writings were organized. The maps used with literature or story readings reflected the common story features of character(s), plot, setting, problems faced by the main character, outcomes or consequences, resolution, and theme. The maps used with expository, informational readings reflected cause and effect, sequential, comparison and contrast, and topic development text patterns.

Rubric

The mapping step was followed by a discussion about writing and how reading can provide a number of ideas for development in writing. Children were presented with the qualities of writing and the four-point weighting scale of the state rubric scoring system. The components of the rubric, written in a user-friendly way for children, were hung in each of the project's classrooms. Teachers and students discussed what features of writing made a good paper as they viewed the rubric, and children returned to look at it as they engaged in the ongoing writing or revision processes.

(w)Rite

Writing and planning for writing after reading and mapping became a central feature of the 6Rs stepwise approach. Children wrote their own individual papers while viewing either a group-constructed map or their own filled-in map. Project teachers interacted freely with the children as they wrote, often answering such questions posed by the children about their writing as "Does it sound good?" or "Is this correct?" Through teacher interaction and revision suggestions, the rewriting task was completed.

Revise

The rewriting was, more often than not, accomplished by a highly motivating, visual, and artistic literacy activity that connected to the meaning of the book. For instance, with the book, *Playing Right Field* (Welch, 2000), aligned with 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 with the fiction book, *The Other Side* (Woodson, 2001), was a rewriting of the story on a cut-out picket fence which represented the divide between a black and white neighborhood.

Once revision and editing were completed, children shared their reading with a buddy or the entire group with the paper finally being displayed on the classroom wall under the appropriate theme title. Children completed from four to seven papers based on different trade books and the use of the various map organizational plans. The reading, mapping, and writing steps the 6Rs process supported and built on one another. The literacy engagement was cumulative and recursive in that written products were visible outcomes of each book and the cycle began again with the new offering of a trade book related to another theme.

This expectation and routine continued in the computer lab, where children worked on a multimedia project connected to one of the three project themes.Kidspiration® 2 and Microsoft Word software programs allowed children to map, to author, to use visuals, to link to Internet informational resources, and to design appealing screen layouts.

Measuring Effectiveness

Even with the short program duration, we used three types of outcome-evaluations to determine if our reading/mapping/writing emphasis was effective and if the program achieved its intended goals. We measured each participant's writing ability at the beginning and end of each summer cycle and used an exit questionnaire to ask students what they thought they had learned, what they liked best, and if they thought their reading and writing had improved. During the fourth cycle year, we measured participant perceptions about their reading behavior at the beginning and end of the program.

Over the four-year span, we saw an improvement in program completion, as evidenced by the scoring of the pre-entry and post-exit essays written on the assessment days. For these, the students wrote both papers on the same topic, a favorite experience with the second focusing on an enjoyable program experience. Both papers were evaluated by calibrated veteran raters who followed the state scoring procedure. Through a multiple correlation procedure among all teacher-raters who had previously scored children papers from second to eighth grade levels, an overall inter-scorer phi-coefficient of .860 was established (Anastasi, 1988). Raters computed a focused holistic score for each paper as exemplified by Aaron, a fifth-grader who wrote about his favorite experience of playing sports. He received scores of 3 for meaning, 3 for development, 3 for mechanics, 2 for language use, and 2 for organization, earning an overall holistic score of 2.6.

With use of holistic scoring procedures, evaluators do not focus on only one aspect of writing, such as mechanics or conventions, but rather assess the overall quality of the written work (Gunning, 2002). All such rubrics have two main features in common: they show and describe the criteria, or "what counts," in a written piece and they use a rating scale or rating system to express a graduation in the quality of writing (Andrade, 2000).

Results

Writing Ability

Our primary data analysis consisted of the use of dependent sample t-tests comparing the mean scores of the students' pre- and post-writing as evaluated by the four-point rubric scale. These results, reported in Table 1, reveal that while writing scores improved significantly for each year's cohort, the children did not attain the 3.0 state benchmark score during the time period. Not all children improved in writing each year. Examining individual student's pre- and post-writing scores, we found that 20% had lower scores on the post essay and that from 10 to 15% of the children evidenced no change in scores from pre- to post-testing.

Table 1

Results Over Four Summers Showing Pre-Post Writing Scores for Homeless Children

	N	M	SD	t	df	*p*
Year 1						
Pretest	45	2.42	0.55	2.92	44	.005
Posttest	45	2.69	0.60			
Year 2						
Pretest	42	2.31	0.65	3.09	41	.004
Posttest	42	2.63	0.73			
Year 3						
Pretest	63	1.96	0.98	4.93	62	< .000
Posttest	63	2.65	0.98			
Year 4						
Pretest	90	2.01	0.69	6.77	89	< .000
Posttest	90	2.41	0.64			

Table 2

Dependent t-test Analysis of Pre- and Posttest Results of General Perception, Progress, and Social Feedback Categories, Areas of the Reader Self-Perception Scale (RSPS) for the Fourth Year Homeless Population

	N	M	SD	t	df	*p*
General Perception						
Pretest	67	4.13	0.94	1.82	66	NS
Posttest	67	4.33	0.81			
Progress						
Pretest	67	37.03	6.43	2.14	66	0.04
Posttest	67	38.01	6.07			
Social Feedback						
Pretest	67	33.76	5.76	1.68	66	NS
Posttest	67	34.72	6.76			

Reader Self-Perception Scale

In addition to the trend in increased program completion and overall gains in writing ability, other indicators suggested that children were positively affected by the program offerings. During the fourth year, we used a Reader Self-Perception Scale (RSPS) (Henk & Melnick, 1995) to see the effect engagement in reading every day had on these children. These researchers developed a 33-item scale categorized into the five areas of (1) General Perception, (2) Progress, (3) Observational Comparison, (4) Social Feedback, and (5) Physiological States. A table was provided to indicate descriptive statistics for each category area and grade level. Based on a sample of 1,525 students, an alpha reliability coefficient of .84 was established for the Progress Scale and .81 for the Social Feedback Scale. No alpha coefficient could be generated for the General Perception item "I think I am a good reader," but because of our program intent, we believed that this was a key item to evaluate.

For our purposes, we selected the category areas of (1) General Perception, having the one item; (2) Progress, with 9 items; and (3) Social Feedback, with 9 items. In all, 67 students read 19 items at the beginning and end of the program, responding on how much they agreed or disagreed with each statement based on a five-point scale. The items in the category area of Progress were related to how students believed they improved or became stronger in their reading and overall literacy abilities. The Social Feedback items were concerned with how students perceived what others thought about their improvement in literacy. A dependent t-test was used to analyze the three category areas of the reader Self-Perception Scale. For General Perception a nonsignificant difference was found ($t(67) = 1.82$, ns). A similar nonsignificant finding was found for Social Feedback ($t(62) = 1.68$, ns). However, in the area of Progress, a significant difference was found ($t(67) = 2.14$, $p < 0.04$) with the post-test score ($M = 38.01$, $SD = 6.07$) being higher than the pre-test score ($M = 37.03$, $SD = 6.43$) (see Table 2). The 67 children present for both sittings made the following gains: General Perception .19 (ns); Social Feedback .96 (ns); and Progress .99 ($p < .04$).

Questionnaire

When asked to "tell about some of the things they learned" in a questionnaire given at the end of the program, the children indicated that they had internalized many of the major themes of the program and were able to express these in writing. Over the four- year span, the most prevalent responses included knowledge about the dangers of drugs, alcohol, and smoking (55); computer use (45); the protection of and respect for the environment (25); good character and respectfulness (47); how to read better (31); how to write better (54); and how to swim (37). When asked to tell how their reading or writing may have improved because of their summer experience with us, 143 children responded that they had read more, written more, and practiced their writing extensively.

Participant Satisfaction

Children revealed in their questionnaire comments how and why the 6Rs format coupled with the computer project connection became a beneficial learning experience in this literacy-found environment. They wrote:

Raymond, 8 years old, "computer. Why because I got to type and go on the internet."

Queen, 10 years old, "It got better by me writing a lot. The reason why I've writing a lot is because for the whole week that I've been here I have been writing.
"

Mike, 11 years old, "I think my reading and writing got better because I got to experience more things I didn't know. I also got better because I learned new words and I got to hear new stories."

Syherra, 11 years old, "In reading we read a story and mapped it out….I think my reading and writing just got stronger because I got back into the school mode. I haven't done work in a long time but now I have so I feel like I'm in school."

Tiffany, 11 years old, "I read and write a lot more than in school."

Idvissa, 11 years old, "In reading I learned to read faster. . . . In writing I got better at it. And in computer I wrote about my life and I wrote about bulling {bullying}."

Aneesa, 12 years old, "My reading and writing got better because we did it a lot."

Shaunasia, 13 years old, "Also I learned how to make a new way in expressing my feelings."

Kevin, 13 years old, "My reading got better because I learn that reading is fund."

Bhekvante, 13 years old,

> My favorite activity I likes best was reading the books and doing work after it and the hanging it up. . . . It makes me feel that I have accomplished everything in one day. . . .My reading and writing got better because I can read and write big words that I thought I could not read. . . . Also the reading has encourage me to do more reading at home and in school.

One residence director acknowledged other benefits the program brought to homeless children when she wrote:

> Our young people are not always easy to please but they were ecstatic about getting up early to get to the campus. The fact that you had an abundant number of male staff was great also because many of our young people come from homes lacking a male figure. It was great for them to be around positive, educated, and relatable young men. Our children became very fond of the staff and could not stop talking about them.

Discussion

This study involved an outcomes-based and a case-study approach conducted over four summers with four cohorts of homeless children bused to a college campus for 10 days of literacy and athletic engagement. Results revealed that writing scores improved significantly for each cohort when dependent sample t-tests were used to compare mean scores of pre- and post-writings based on a rubric scale consistent with the state's English language arts testing procedure. When fourth year participants were tested in the three category areas of a Reader Self-Perception Scale (RSPS) (Henk & Melnick, 1995), dependent sample t-tests indicated significance in the category area of reading progress. A self-report questionnaire revealed that many participants gained knowledge and skills, and were positively influenced by the program's themes and offerings.

In a number of ways, the program attempted to meet the conceptual and research-informed principles guiding its design. While the phenomenon of summer loss for economically disadvantaged children was not directly measured as was done in earlier studies (Alexander, Entwisle, & Olson, 2001; Cooper, Nye, Charlton, Lindsay, & Greathouse, 1996; Kim, 2004), fourth year participants revealed through the RSPS that their perceptions of themselves improved, especially in the area of reading progress. Because the 6Rs guided reading/guided writing approach was the only formal one offered to these children during the summer period, they responded to the 19 items based on what they believed happened to themselves in our classrooms. The structured reading of the trade books, the reading during the mapping and the writing components, the re-readings of daily engagement which the children felt to be a positive influence contributing to their progress as competent readers. Furthermore, children from all cohorts reported via the questionnaire that they learned to read better and that they read more than they would have otherwise.

We also wanted to determine if students would be better prepared for literacy work during the regular school year and if they would be positively influenced through the trade book readings about personal and societal issues affecting their lives. The major literacy approach connected with the state English language arts standards and the assessment procedures implemented through the 6Rs cycles and computer projects indicated that each year's cohort significantly improved in writing. These results were consistent with those achieved by children from the city's many housing projects (Blake & Sinatra, 2005; Sinatra, 2004). However, in the program time period, the DHS children did not attain the 3.0 acceptable writing standard in post-test results. This was undoubtedly due to their entry writing competency levels, with pre-test cohort averages below 2.45 and for some years at 1.96 and 2.01 for mean entry writing levels. To overcome such deficiencies in writing proficiency, DHS students need more time and practice to attain acceptable levels of writing competency.

However, many participants indicated on their questionnaires that they learned how to write better and that they practiced writing extensively. By focusing on how to write and how writing coordinates with what was read, we hoped to reduce summer loss and to provide the children with skills that would help them in the formal arena of schooling. The writing activities accomplished in our approach with pens, pencils, and keyboards asked children to reflect on socially relevant issues and consider meanings found in the trade book readings. Responses on the questionnaires revealed that many children were positively influenced through the reading of the trade books and the program activities. They reported that they learned of the dangers of substance abuse, how to protect and respect the environment, how to be respectful and of good character, and how to use computers.

Integrating reading and writing creates a powerful bond influencing learning in ways not possible when students read without writing and write without reading (Vacca & Vacca, 2002). The results of the engagement of talking, questioning, analyzing texts, and writing based on reading were consistent with the findings of literacy instruction involving teachers in nine high poverty schools across the United States (Taylor, Pearson, Peterson, & Rodriguez, 2003). This study found that successful teachers challenged students to think reflectively and taught them how to apply reading strategies to their reading and writing. Furthermore, our study reflected the recommendations of the National Commission on Writing (2003) that the time students devote to writing should be at least doubled, that writing should occur across the curriculum, and that writing should occur during out-of-

school time, recommendations especially important for our cohort of students given their writing deficiencies.

A structured and intense literacy program supplemented with athletic, recreational, and academically focused fun activities like the one reported here appears to be beneficial for homeless children when offered during the summer. This type of program may succeed because it offers consistency and a routine every day to a population that leads a highly mobile lifestyle and has experienced a disjointed school year. Here there was no sense of "catching up" with the skill work and assignments of their classmates. Instead, children read, wrote, and did computer work each day, adding to their skills and knowledge base as they acquired new vocabulary and writing techniques.

The approach presented in this paper offered homeless students two types of educational reform, supplemental support services to enhance academic success beyond traditional school hours, and transitional schooling held exclusively for them in a controlled setting (Mawhinney-Rhoads & Stahler, 2006). By busing cohorts of homeless children to a college campus, we created homogeneity of social class; increased the likelihood of peer, teacher, and coach acceptance; and established high expectations for all children to succeed academically.

Our comprehensive approach also met many of the high quality implementation criteria noted in a recent review of 34 academically focused summer programs: (a) developing a program with intentionality, (b) attempting to build positive and individual connections with youth, (c) developing a highly skilled staff, (d) engaging institutions and community groups in programming, and (e) using engaging and pleasurable program activities (Harvard Family Research Project, 2006). The criteria not met in our program approach were those for developing a mutually supportive relationship with the students' schools and building connections with the participants' families.

Recommendations and Implications for Practice and Research

Based on the practices described here, the following recommendations and implications for future program developers and researchers are offered. First, because of residence instability and summertime programming, developing ongoing and supportive relationships with the students' many schools would be a daunting task. However, such a relationship may work well if programs for homeless children were established after school at facility sites or on weekends at a resource-enriched site. Secondly, the contribution of athletic activities to learning and social and behavioral outcomes could be more systemically measured. Athletic participation, as noted by others (Entwisle, Alexander, & Olson, 2001; Zaff, Moore, Papillo, & Williams, 2003), may provide both a motivational and learning complement to academic offerings. Finally, regardless of the timing of out-of-school programs, interaction and connection with the children's families should be considered as an advantageous program addition. Because many of the parents have not finished high school, are single females, and are heads-of-households on public assistance (Nunez, 2001, 2004), career and academic-type program offerings run concurrently as the children are being served would seem to be a way to benefit both parents and students.

If groups of homeless children could be served in a supplemental or transitional school setting, other program options found in the literature may be considered as well. Researchers could randomly assign groups of homeless children to intervention conditions investigating the use of different reading or writing methodologies, comparing the results with the 6Rs approach described in this paper. Studies investigating the use of cognitive mapping strategies with inner-city and low-income students have revealed positive results for reading and writing improvement (Guastello, Beasley, & Sinatra, 2000; Katims & Harmon, 2000; Schweiker-Marra & Marra, 2000). In a number of studies with students classified as having learning or writing problems, Graham and his associates have investigated the use of a Self-Regulated Strategy Development (SRSD) model which examines aspects of pre-writing behaviors (Harris & Graham, 1999; Page-Voth & Graham, 1999; Sawyer, Graham, & Harris, 1992; Troia, Graham, & Harris, 1999). Using the SRSD procedure, experimental students shown how to use self-regulation strategies such as goal setting, self-monitoring, brainstorming and sequencing ideas generally wrote better papers and compositions than matched controls. The SRSD model or the pre-writing activity approach involving story mapping described by Schweiker-Marra & Marra (2000) could be compared with the 6Rs approach described in this paper to determine which approach would yield the most beneficial results for homeless children when writing based on information from and reflections on what was read.

Limitations

This program for homeless children had three major limitations. First, regular and sustained attendance during each cohort summer was a recurring problem. Program completion remained a critical issue with 45 of 70 children (64%), 42 of 104 children (40%), 63 of 126 children (50%), and 90 of 105 children (80%) being present for the two writing evaluations over the four-year period. Furthermore, children may have been absent during the first and last days, the assessment days, but in attendance during other days. Similar to other programs, even with the best intentions and support from staff and facility directors, student absenteeism inhibits program effectiveness and measurement of goals (Gibbs, 2004; Harvard Family Research Project, 2006; Mawhinney-Rhoads & Stahler, 2006). Possibly by forging stronger relationships with students' parents, the retention and attendance of youth would improve (Lauver, Little, & Weiss, 2004).

The second limitation, primarily due to funding and staff and facility availability, was the length of the project time. Even though the academic component was intense and equivalent to half a regular school day, the project duration was only 10 days over a three-week period. A longer time period may yield even stronger writing improvement with participants reaching the 3.0 state benchmark score and perceptions about reading proficiency revealing positive results on major scales of the Reader Self-Perception Scale (Henk & Melnick, 1995).

A third limitation involved the transfer value of the mapping strategy as a way to organize what was read and as a way to prepare a written piece. While we taught the mapping procedure in a direct way and had children model and practice its use with writing assignments, we did not determine if they were taught how to generalize this

strategy to other academic areas and content readings. We hope such a strategy would have transfer value as they prepare written papers in the future, but we did not determine if they thought they would do so or if they thought the technique of mapping was valuable as a cognitive strategy. We also evaluated our pre-and post-papers based on the holistic scale criteria used in the state assessment plan. Future researchers and program developers using such an outcome evaluation procedure may wish to focus on the use of the organization and development components of a rubric scale if mapping were used as the organizational strategy.

Finally, we did not determine if participation in the second half of the day's program had any relevance on how students behaved or reacted to the academic component. Possibly more effective use of the exit questionnaire and personal interviews with students would yield information regarding both how they perceived the use of mapping in future school assignments and if they perceived sports participation to be a positive complement to academic participation.

In conclusion, this paper describes a program, offered with consistency and design over four consecutive summers, that may be the first of its kind in the literature on educational achievement for homeless children at the elementary, middle, and junior-high school levels. The results reveal that the coordinated components of the 6Rs literacy approach presented in both the small-group classroom and computer lab settings by trained and caring teachers can influence this highly mobile and needy population to succeed in writing achievement and in their perceptions of themselves as readers.

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Article

Studying the Classroom Learning Environment of Resilient and Nonresilient Hispanic Children

Héctor H. Rivera and Hersh C. Waxman

Abstract: *This study examines the classroom instruction and learning environment of resilient, average, and nonresilient students in an elementary school consisting of predominantly Hispanic students. A total of 223 students from 4th and 5th grade classrooms participated in the study. All students were asked to complete the "My Class Inventory" survey. A sub-sample of students (n = 127) was also systematically observed in their classroom environment using the "Classroom Observation Schedule" (COS). Overall, this study found significant differences between resilient and nonresilient students in reference to their classroom behavior and perceptions of their learning environment. The findings are discussed in relation to the potential mediating role of the classroom environment in fostering resilience among academically at-risk students.*

Research shows that by 2050, Hispanics living within the United States are projected to reach 98 million in number, thus representing about one-fourth of this nation's population. This is a growth of more than three times their current number (NCES, National Center for Education Statistics, 2003). In the midst of such tremendous growth and social potential, poverty poses a serious challenge to Hispanic children's access to quality learning opportunities, and it places at risk their future success in school. For example, in 2000, Hispanics comprised just fewer than 12% of the U. S. population, but they comprised about 21% of those living in poverty in the United States. As for Hispanic children specifically, 28% were living in poverty therefore painting a grim picture of their future (NCES, 2003). This lack of opportunities places these children at risk of academic failure. Many of these children, for whom Spanish is the primary language, do not develop effective literacy skills by third grade, and many of these children struggle in later grades when text becomes more challenging (Padrón, Waxman, & Rivera, 2002, 2003). Furthermore, research indicates that the failure to develop basic literacy skills during the early years of schooling is linked to future academic, economic, and socioemotional difficulties for students (Carlson & Francis, 2002).

In spite of social and academic difficulties, however, there is a great deal of variability in the achievement of Hispanic children. This variability involves multiple factors and conditions at levels that include the child, teacher, school, family, and community (Padrón, Waxman, & Rivera, 2002). Within the general Hispanic population, it cannot be assumed that all Hispanic students have similar backgrounds, motivation, and perceptions towards school. Some Hispanic students have been very successful academically in school, whereas other Hispanic students have experienced failure and despair in the same school setting (Waxman, Huang, & Padrón, 1997). Consequently, this variability in achievement calls for a careful examination of Hispanic students who have done well in school to see how they differ from less successful Hispanic students within the same classroom environment. This line of inquiry provides social, psychological, and classroom indicators that can serve educators in understanding the points of leverage for improving academic conditions for all Hispanic children in the classroom setting.

Resilience is a theoretical and empirical framework that focuses on indicators or behaviors that promote students' success (Benard, 2004; Condly, 2006; Waxman, Gray, & Padrón, 2004). Theoretically, resilience is an area of research that has important implications for the educational improvement of Hispanic students. It examines students who succeed in school despite the presence of adverse conditions (e.g., low SES, single parent). Overall, the resilience framework focuses on the predictors of academic success rather than on academic failure, which may help us design more effective educational interventions for children's success in the classroom. It may also enable us to identify specifically those alterable factors that distinguish resilient and nonresilient students, as well as to design preventive measurements for all students who are academically at risk.

The purpose of the present study is to examine resilience in the classroom setting as well as protective factors or mechanisms that may serve to reduce the risk of academic failure among Hispanic students. More specifically, the purpose of this present study is to compare the classroom learning environments of resilient, average, and nonresilient

students from an urban elementary school serving predominantly Hispanic students. Since the classroom learning environment can be examined from several different perspectives (Waxman & Chang, 2006), both student perception data and systematic classroom observation measures are used in the present study. The combination of the survey and observational data provide rich insights into our understanding of the "resilience" phenomena as well as our interpretations of how the instructional context may impact students' perceptions of their classroom learning environments. This study specifically addresses the following research questions: (a) Are there significant differences between resilient, average, and nonresilient Hispanic students on their perceptions of their classroom learning environments? and (b) Are there significant differences between resilient, average, and nonresilient Hispanic students on their observed instructional behaviors?

Review of Literature

Characteristics of Resilient Children

In general, children found to be resilient exhibited numerous forms of behavioral adaptation, human circumstances, and human achievements. The literature suggests that there are three distinctive types of psychological resilience that include: (a) good outcomes despite high-risk status, (b) sustained competence under threat, and (c) recovery from trauma (Condly, 2006; Morrison, Brown, D'Incau, O' Farrell, & Furlong, 2006). Across these three distinctive types of psychological resilience, similarities can be found to provide a profile of a resilient child. The characteristics of resilient children include: (a) having a positive relationship with a competent adult, (b) being good learners and problem solvers, (c) being engaging with other people, and (d) having an area of competence and perceived efficacy (Benard, 2004; Masten, 1994; Masten, Best, & Garmezy, 1990). For Hispanic children who are struggling in school, the classroom learning environment can and should become a protective environment for academic, social, and psychological development (Padrón, Waxman, & Rivera, 2002, 2003).

Promoting and Fostering Academic Resilience in the Classroom

Exploring the effectiveness of different methods for assisting Hispanic students to develop necessary academic skills remains a major area of research. The literature suggests that successful classrooms are those that are flexible in order to accommodate students of varying ages, levels of fluency, and language differences in order to meet the varying needs of students (Padrón, Waxman, & Rivera, 2002, 2003). They use a combination of approaches in which reading or writing is taught using special techniques to aid students' comprehension (Waxman & Padrón, 2002). Exemplary classrooms build on rather than replace their students' native languages and culture (Gonzalez, Moll, Floyd-Tenery, Rivera, Rendon, Gonzalez, & Amanti, 1993; Vogt, Jordan, & Tharp, 1992). The knowledge, languages, and sociocultural practices of local communities are a major social and intellectual resource that can be mobilized to enhance teaching and learning in schools. Education for students at risk of academic failure is effective when their ways of knowing, talking, valuing, and interacting are taken as the basis for patterning classroom activity (Waxman & Padrón, 2002; Waxman, Padrón, & Arnold, 2001). Student participation is elicited rather than limited and this pattern of activities enables students to gain mastery over English, literacy, science, mathematics, and humanities (Gonzalez et al., 1993; Vogt et al., 1992; Waxman & Padrón, 2002).

A learning environment, therefore, has the potential of developing resilient or nonresilient students. The benefits of a healthy learning environment have been examined by researchers who have focused on the mechanisms that lead to students' academic improvement. Alva (1991), for example, examined the characteristics of a cohort of 10th grade Mexican American students and found that successful or invulnerable students reported levels of educational support from their teachers and friends. Students were more likely to (a) feel encouraged and prepared to attend college, (b) enjoy coming to school and being involved in high school activities, (c) experience fewer conflicts and difficulties in their inter-group relations with other students, and (d) experience fewer family conflicts and difficulties. Similar findings have also been reported by other investigators (Reyes & Jason, 1993; Gonzalez & Padilla, 1997).

Recent studies on resilience have also focused on examining instructional techniques teachers can employ to help promote resilience in students. Some specific classroom strategies include teaching to students' strengths, teaching students that they have innate resilience or the power to construct meaning, providing growth opportunities for students, recognizing student success, and using self-assessment (Benard, 1997; Bruce, 1995; Rockwell, 2006). Henderson and Milstein (1996) identified six consistent themes that emerged from the research on resilience. These protective factors are increasing bonding, setting clear and consistent boundaries, teaching life skills, providing caring support, setting and communicating high expectations, and providing opportunities for meaningful participation. The work of Henderson and Milstein (1996) and other educational researchers also emphasizes that resilience can be nurtured in the schools, families, and community settings through meaningful activities (Tharp, 1988, Tharp, Estrada, Dalton, & Yamauchi, 2000; Bronfenbrenner, 1986).

In a study conducted by Chang (2004), the characteristics of resilient and nonresilient elementary school children on a sample of 3rd, 4th, and 5th graders were examined. The results from the study indicate that nonresilient students, in general, perceived more difficulty mastering the work assigned during classroom activities. Nonresilient students also perceived significantly higher friction in the classroom than resilient students. On the other hand, resilient students perceived higher satisfaction, higher academic self-concept, and higher student aspirations than nonresilient students. Such findings corroborate results of previous studies that also found that resilient elementary school students expressed more satisfaction with their classroom learning environment than nonresilient students.

Other studies of the classroom learning environment have also yielded similar findings. For example, Waxman and Huang (1996) compared the motivation and learning environment of 75 resilient and 75 nonresilient minority students from an inner-city middle school and found that resilient students had significantly higher perceptions of involvement, task orientation, rule clarity, satisfaction, pacing, and feedback than nonresilient students. Resilient students also reported significantly higher social self-concept, achievement motivation, and academic self-concept than nonresilient students.

Overall, these findings point to the importance of connecting classroom discourse to students' lives (Waxman, Huang & Padron, 1997) as well as the importance of providing meaningful classroom activities to engage and motivate students to participate in classroom discourse (Waxman & Huang, 1996).

Systematic Classroom Observations

Several studies have also examined the characteristics of the classroom for resilient and nonresilient students. In the past three decades, there has been a great deal of research that has employed systematic classroom observation techniques to investigate effective teaching and learning in the classroom (Waxman, 2003; Waxman, Tharp, & Hilberg, 2004). Several studies have found that some groups or types of students are treated differently by teachers in classrooms. These inequitable patterns of teacher-student interaction in classrooms result in differential learning outcomes for students. In general, the studies suggest that low-achieving students in secondary schools ask fewer questions than high-achieving students. They also found that students from upper middle-class elementary schools asked more questions than students from lower middle-class schools (Waxman, 2003; Waxman, Huang, & Wang, 1997).

Generally, the data collected from these studies focus on the frequency with which specific behaviors or types of behaviors occurred in the classroom and the amount of time they occurred. Some of the major strengths of using classroom observations are that they: (a) permit researchers to study the processes of education in naturalistic settings, (b) provide more detailed and precise evidence than other data sources, and (c) can be used to stimulate change and verify that the change occurred. The description of instructional events that are provided by this method have also been found to lead to improved understanding and better models for improving teaching (Waxman, 2003; Waxman & Huang, 1996).

A second area where systematic classroom observation has been found to be beneficial is in investigating instructional inequities for different groups of students. Classroom observations can answer important questions about whether some students are being treated differently in the classroom, which may in turn explain why some students learn more than others. Often, this issue has been defined as differences in opportunity to learn or inequitable allocation of instruction. In other words, to what extent is there variation in the quality and quantity of instruction that students experience in the classroom, and does that variation explain inequality in educational outcomes?

Students' Perceptions of Their Classroom Learning Environment

Several major reviews and research syntheses have concluded that the sociopsychological environment significantly impacts students' cognitive and affective outcomes (Fraser, 1998; 2002). From a theoretical perspective, classroom learning environment research emphasizes the student-mediating or student cognition paradigm which maintains that how students perceive and react to their learning tasks and classroom instruction may be more important in terms of influencing student outcomes than the observed quality of teaching behaviors (Knight & Waxman, 1991; Wittrock, 1986). This paradigm assumes that: (a) the classroom environment experienced by the student may be quite different from the observed or intended instruction (Knight & Waxman, 1991; Wittrock, 1986), and (b) teaching and learning can be improved by examining the ways that classroom instruction and the learning environment are viewed or interpreted by the students themselves since students ultimately respond to what they perceive is important and meaningful (Oldfather, 1995; Fraser, 1990; Fraser & O'Brien, 1985; Chavez, 1984; Schultz, 1979). Students are considered to be the experts of their own views and experiences of school (Oldfather, 1995), and their perceptions of the learning environment are also essential for understanding the opportunities for learning that are provided to each student in class (Fraser, 1990).

In recent years, the classroom learning environment paradigm has expanded its use of research methods from primarily using traditional surveys and questionnaires to incorporating more mixed methods (Waxman & Chang, 2006). The use of mixed method studies allows researchers to better understand what is actually occurring in the classroom. One complementary method that has been recently used with learning environment research is systematic classroom observation. By combining classroom observations with survey data, a more comprehensive assessment of the entire classroom environment can be made (Waxman & Chang, 2006).

Method

Participants

The participants were 223 fourth and fifth grade Hispanic students who were selected from 11 classrooms (six 4th grade and five 5th grade classes) from one elementary school located in a major metropolitan area in the south central region of the United States. The school serves predominantly Hispanic students (i.e., ~ 95%), and nearly all of them receive free or reduce-cost lunches (i.e., ~94%). Overall, the academic achievement of these students in this school is lower than other students in the same school district and lower than the state average. The state rating for this school was "acceptable" which meant that: (a) at least 50% of all students and each of the four student groups (i.e., African American, Hispanic, white, and economically disadvantaged) pass each subject area; (b) there is less than 6% dropout rate; and (c) daily attendance is 94% or higher. This school was purposely selected because it was one of the lowest achieving elementary schools in a school district that had received both national and state recognition for effectively educating predominantly minority students from economically-disadvantaged circumstances.

All students were asked to complete an adapted version of the "My Class Inventory" survey. A subsample of students (n = 127) also was systematically observed in their classroom environment using the "Classroom Observation Schedule" (COS).

Instruments

An adapted version of the *My Class Inventory* (Dryden & Fraser, 1996; Fraser, Anderson, & Walberg, 1982) was used to collect data on students' perceptions of their classroom learning environment near the beginning and near the end of the school year. The inventory is a 50-item questionnaire read to students in Spanish or English by researchers. Students circle either "Yes" or "No" in response to

statements about their reading class. As suggested by the developers of the instrument, the survey was scored 3 for yes responses and 1 for no responses. The questionnaire contains eight scales that assess students perceptions in the following areas: (a) Satisfaction, (b) Friction, (c) Competition, (d) Difficulty, (e) Cohesion, (f) Self-Esteem in Reading, (g) Teacher Support, and (h) Equity. It was considered an adapted instrument because the scales of Self-Esteem in Reading and Equity were included from other learning environment measures (Fraser, 1998; Padrón, Waxman, & Huang, 1999).

The adapted instrument has been found to be reliable and valid in many different school settings, and it is especially applicable for elementary school students (Chang, 2004; Padrón, Waxman, & Huang, 1999). A brief description of the scales and a sample item from each follows, as well as each scale's internal consistency reliability (i.e., Cronbach's alpha) calculated from the present data:

Satisfaction—the extent of students' enjoyment of class work (e.g., I enjoy the schoolwork in my reading class. *Cronbach's Alpha* = .80)

Friction—the amount of tension and quarreling among students (e.g., Some students in my reading class pick on me. *Cronbach's Alpha* = .66)

Competition—the emphasis on students competing with each other (e.g., I try to be first to finish the class work in reading. *Cronbach's Alpha* = .62)

Difficulty—the extent to which students find difficulty with the work of the class (e.g., In my reading class, the work is hard for me to do. *Cronbach's Alpha* = .72)

Cohesion—the extent to which students know, help, and are friendly toward each other (e.g., In my class, I often work with other students. *Cronbach's Alpha* = .72)

Self-Esteem in Reading—the extent to which students think that they are good at reading (e.g., I am a very good reader. *Cronbach's Alpha* = .68)

Teacher Support—the extent to which students think that their teachers are supportive (e.g., My reading teacher really cares about me. *Cronbach's Alpha* = .76)

Equity—the extent to which students are treated equally as their classmates (e.g., I am treated the same way as other students in my reading class. *Cronbach's Alpha* = .63)

The internal consistency reliability coefficients of the eight scales were found to range from .62 to .80, with an average of .70. Therefore the questionnaire has adequate internal consistency reliability. The discriminant validity for the present sample (i.e., the mean correlation coefficient of a scale with each of the other scales) ranged from .01 to .59, with an average of .22, suggesting that there was adequate scale discriminant validity, although a few scales overlapped to a certain degree (e.g., Cohesion and Satisfaction, r = .59).

The observation instrument used in the study was the Classroom Observation Schedule (COS). It is designed to systematically obtain information on students' classroom behaviors. It documents observed student behaviors in the context of ongoing classroom instructional learning processes. The COS has been modified to include a "Language Used" section for this study because many of the students' primary language was Spanish. Individual students are observed with reference to (a) their interactions with the teacher or other students, (b) the selection of activity, (c) the type of activity they are working on, (d) the setting in which the observed behavior occurs, (e) their classroom manner, and (f) the language used. This observation schedule has been found to be valid and reliable in previous studies (Padrón, Waxman, & Huang, 1999; Waxman & Padrón, 2004). The inter-observer agreement for the present study was found to be excellent, with an inter-observer reliability of .96 based upon a 15% sample of students (n = 127) who were systematically observed in their classroom environment by two different observers.

Procedures

Near the beginning of the school year, teachers were asked to identify their population of students at risk (e.g., students from families of low socioeconomic status; students living either with a single parent, relative, or guardian). Students identified as gifted, talented, or special education were excluded from the population to avoid potential effects related to ability differences. From this pool of at-risk students, teachers were then told to select resilient (i.e., high-achieving students on both standardized achievement tests and daily school work; very motivated students; students with excellent attendance) and nonresilient students (i.e., low-achieving students on both standardized tests and daily school work; unmotivated students; students with poor attendance) in their class, as well as average students in their classrooms. "Average" students were those selected at random who were not identified as resilient or nonresilient.

Students were administered the "My Class Inventory" near the beginning of the school year. They were also observed in their classroom environment two months into the school year. Trained researchers read the survey to all students after the students were told that the survey was not a test and that their responses would not be seen by any school personnel. Trained observers watched the resilient, average, and nonresilient students identified by the teachers during the regular reading classes, language classes, or both. The Classroom Observation Schedule was used to observe each student for ten 30-second intervals during each classroom period.

Results

Analysis of variance (ANOVA) was performed using SPSS. Group means were analyzed along the dimensions of Resilient, Nonresilient, and Average students. Group perceptions of the learning environment as measured by "My Classroom Inventory" were analyzed as well as their observed behavior and classroom activities. When significant differences were found, the Duncan post hoc multiple comparisons were used to determine group differences.

Students' Perceptions of the Classroom Learning Environment

Descriptive statistics are used to report the means and standard deviations of students' perceptions of their classroom learning environment (see Table 1). A mean scale score close to the value of 3 indicates that students perceived that the particular scale was very

Table 1

ANOVA Results of Learning Environment by Resilience Classification

	Resilient (n = 50)		Average (n = 121)		Nonresilient (n = 52)		
Variable	M	SD	M	SD	M	SD	F
Cohesion	2.76	0.39	2.60	0.55	2.52	0.53	2.001
Competition	2.50	0.56	2.27	0.60	2.32	0.63	2.400
Difficulty	1.65b	0.72	1.51ab	0.58	1.79a	0.71	3.737*
Friction	1.77	0.53	1.74	0.53	1.94	0.60	2.583
Satisfaction	2.51	0.60	2.64	0.57	2.53	0.61	1.248
Reading Self-Esteem	2.34a	0.57	2.24a	0.58	1.99b	0.54	5.141**
Equity	2.30	0.62	2.38	0.58	2.31	0.58	0.446
Support	2.66	0.40	2.70	0.40	2.59	0.41	1.274

* $p < .05$, ** $p < .01$

Note. Means with different letters are significantly different based on a Duncan post hoc test.

prevalent (i.e., agreed with all the items on the scale), whereas a mean score of 1 indicates that students disagreed with the items on the scale. Items with negative statements were reversed prior to conducting the analysis.

An analysis of variance (ANOVA) was used to examine if there were significant differences between resilient, average, and nonresilient students on the eight scales of "My Class Inventory." Table 1 presents the results on the eight scales. The ANOVA results reveal a significant main effect for Difficulty, F (2, 220) = 3.74, $p < .05$, and for the Reading Self-Esteem scale F (2, 220) = 5.14. $p < .01$. Overall, the post hoc results revealed that nonresilient students reported having more difficulties in their class work than resilient students. Meanwhile, resilient and average students reported higher levels of reading self-esteem than nonresilient students. In other words, nonresilient students expressed a lower opinion of themselves in regards to their reading abilities in comparison to resilient and average students.

Results for the Classroom Observation Schedule (COS)

An analysis of variance (ANOVA) was also performed to examine possible significant differences between resilient, average, and nonresilient students' behaviors and activities in the classroom learning environment. Table 2 presents the results on the five clusters of variables. The sample sizes for the resilient, average, and the nonresilient student groups observed are n = 49, n = 34 and n = 44, respectively. The results reveal that nonresilient students were observed more frequently "Not Attending to Task" than resilient and average students, F (2, 124) = 20.67, $p < .01$; and nonresilient students were also observed more frequently "Distracted" than resilient and average students F (2, 124) = 16.71, $p < .01$. On the other hand, resilient and average students were observed on task more frequently than nonresilient students, F (2, 124) = 15.36, $p < .01$. Resilient and average students were found to be on task about 90% of the time, while nonresilient students were observed being on task only two-thirds (66%) of the time. These differences are both educationally and statistically significant.

There was no significant difference in language used by resilient, average, and nonresilient students. Also, there were no significant differences on the type of academic activities provided to students in the classroom learning environment.

Discussion

Overall, this study serves to corroborate the demarcated differences between resilient and nonresilient Hispanic students in reference to their classroom behavior and perceptions of their learning environment. The systematic observations of the classroom environment also reveal students' behavioral differences on their engagement in activities, staying on task, and their degree of distraction or attention during classroom instructional time. These findings were both statistically significant and educationally significant, as the effect size approaches nearly one full standard deviation between resilient and nonresilient students on-task behaviors.

Another interesting finding in the study was that there was very little interaction among peers or students and teacher. We found that

Table 2

ANOVA Results of Student Observations by Resilience Classification

	Resilient (n = 49)		Average (n = 34)		Nonresilient (n = 44)		
Descriptors	M	SD	M	SD	M	SD	F
Interactions							
No interactions/independence	92.55	11.20	95.56	9.10	92.32	12.91	.95
With teachers—Instructional	3.39	8.32	3.62	9.70	2.93	7.10	.07
With teacher—Social	.59	4.14	.47	2.74	.00	.00	.51
With students—Instructional	2.71	7.12	.82	3.34	3.25	8.82	1.22
With students—Social	.65	3.20	.00	.00	1.43	5.81	1.28
Activity Types							
Working on written work	34.22	30.83	36.38	30.76	26.23	25.41	1.40
Interacting—Instructional	7.10	11.14	3.88	9.45	5.75	11.58	.86
Interacting—Social	.65	3.20	.00	.00	1.43	5.81	1.28
Watching or listening	50.31	32.24	44.79	35.04	35.50	31.89	2.38
Reading	10.53	18.00	16.12	18.86	8.27	15.28	2.21
Getting/returning materials	.00	.00	1.91	6.69	1.07	5.36	1.73
Drawing/creating graphics	1.33	6.68	.74	4.29	.00	.00	.92
Not attending to task	5.86b	12.05	10.47b	15.45	30.18a	26.35	20.67**
No activity/transition	1.16	4.72	2.00	5.59	1.41	4.52	.74
Setting							
Whole Class	100.00	.00	100.00	.00	99.68	2.11	.39
Manner							
On task	89.53a	18.95	88.94a	16.47	66.46b	28.27	15.36**
Waiting for teacher	3.55	15.38	1.44	6.21	4.14	16.89	.37
Distracted	6.86b	12.65	10.56b	15.48	29.34a	27.42	16.71**
Language Used							
English	91.14	25.92	92.15	26.05	90.11	25.91	.06
Spanish	2.61	11.86	.41	2.40	3.05	9.90	.83
Both English and Spanish	6.25	18.74	7.44	24.62	6.86	18.74	.04

** $p < .01$

Note. Groups with the same letter did not score significantly based on Fisher's LSD post hoc test.

there is minimal instructional time for students with their teacher, and when present, instruction was most often represented by whole-class lectures.

It is interesting to note that although the teachers had no difficulty indicating which of the students in their classroom were resilient, average, and nonresilient, there were no significant differences found in the type of classroom activities used for each of these student groups. In other words, all students in the classroom were treated essentially the same, even though some students were known to be nonresilient and at risk of academic failure. Consequently, it appears that these nonresilient students may continue to fail academically given that there is no differential instruction for them. Present findings suggest that no significant instructional strategies or interventions which may have helped nonresilient students become academically successful were made in these classrooms. This in the long term may have detrimental consequences for nonresilient students because they are in greater need of academic instruction such as scaffolding, instructional conversation, and contextualization that have been found to be instrumental in the process of developing academic resilience for at-risk students.

The findings from the present study also provide some insight for educators who wish to foster optimal learning conditions for all students. It seems that without an improvement in the classroom and instructional learning environment, students' academic performance will continue to decline (Gordon & Mejia, 2006). After all, if the development of new social skills, academic skills, and social behaviors is dependent upon the diversity of positive experiences and activities in the classroom, then it follows that nonaction or the lack of positive academic activities cannot produce academic resilience or any new positive behavior on students at risk of academic failure.

In general, educational resilience should not be viewed as a fixed attribute of some students, but rather as alterable processes or mechanisms that can be developed and fostered in the classroom environment. Benard (1997), for example, maintains that there are four attributes or personal characteristics that can be altered or developed for children to become resilient: (a) social competence, (b) problem-solving skills, (c) autonomy, and (d) a sense of purpose. McMillan and Reed (1994) also describe four factors that appear to be related to resiliency: (a) individual attributes, (b) positive use of time, (c) family, and (d) school. Therefore, these resilience attributes can be developed in students. This is because environmental and intrapsychological processes are alterable. For example, the literature on resilience indicates that "a sense of purpose" is an important attribute in resilient children. A sense of purpose regarding why students are in the classroom and why they are doing what they are doing, can be achieved through contextual and connected instruction. In other words, the perceptions students have about their learning environment and its significance to them can be altered so students may learn in the context of a school environment that can be perceived by them as supportive and meaningful.

Limitations

There are several limitations that could be addressed in future studies. First, it should be pointed out that this study is cross-sectional rather than longitudinal. Longitudinal studies would provide us with better insight on academic changes between resilient and nonresilient students over time. Second, the sole use of teacher nomination to identify students could be considered a limitation. Ideally, multiple measures or indicators of student resilience would be preferred. A final limitation centers on the relatively small sample of schools and students. A larger sample of settings, schools, and students would improve the generalizability of the study.

Conclusion

There are certain dynamics that need to occur in the classroom in order to assist Hispanic students in their academic development. Research suggests that a successful classroom environment can be fostered which, in turn, may serve as a protective factor for the development of resilience in classroom settings. For example, when teacher and students work together to produce successful activities in the classroom, this creates a sense of ownership for the children as well as becomes a bridge for the adult to influence the children positively. This process of working in joint productive activities will also assist in the development of language and literacy across the curriculum, as the students and teacher become engaged in the development of meaningful classroom practices. The research literature also points out that classroom activities need to be connected to students' lives in meaningful ways that include contextual processes of thinking that mirror the students' social reality. Students also need to be challenged through complex thinking and guided conversations that may assist them in developing academic language (Tharp & Gallimore, 1988; Tharp et al., 2000).

As shown in this study, academic interactions for all students in these classrooms are minimal. Students lacked the opportunities to develop academic discourse. For example, the academic interactions between child and teacher and between children were less than 10% for all students. On the other hand, one important aspect for promoting resiliency among at-risk students is providing growth opportunities for students. These growth opportunities involve teaching to students' strengths, which, in turn, translate into meaningful classroom discourse. Students need opportunities to speak and write, to practice language use, and to receive the natural feedback of conversation from teacher and peers. Oral and written language development can be fostered by restating, modeling, offering alternative phrasing, and questioning. Everyday language and academic language need continuous and integrated development because academic language builds on and modifies everyday language and the thinking that it reflects. Academic discussion encourages students to move beyond everyday talk and use subject lexicons to express their understanding of concepts (Tharp, 1997; Cazden, 1986; Au, 1980; Vygotsky, 1978).

It has been our intention to examine current findings from a study of the classroom environment for the development of academic resilience. We have also suggested some possible avenues for the development of successful classroom environments. Children learn what they are taught. If they are taught only facts and basic skills, they will learn only facts and basic skills. Cognitive complexity will be learned if it is taught. Of course, neither a challenge too low nor one too high will assist their academic development. For the development

of academic resilient behaviors to occur, challenge must constantly be set at the "Zone of Proximal Development," the point where assistance is necessary (Tharp & Gallimore, 1988; Vygotsky, 1978).

A child's learning environment is beyond the classroom. It includes the home, the neighborhood, and the community to name a few. However, the classroom environment is an alterable and important point of leverage, and the classroom is a place where children spend most of their time. Therefore, it follows that a child's development of resilient or nonresilient traits needs to be understood in the context of the classroom dynamics that produce, sustain, or inhibit the development of resilient behaviors and practices. This process may assist educators to locate the levers of influence that can bring about some reorganization for the ecology of the classroom to become an environment that brings about success for all students.

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Article

Assessment of a Full-Service School, After-Hours Tutoring and Enrichment Program

Cassandra Staben Walker, Robert Kronick, and Joel F. Diambra

Abstract: *Full-service school programs are developed to address the unmet social, academic, medical, and economic needs of the students and communities they serve. Although the idea of full-service community schools has existed for over a century, the empirical research base is scant. This study addresses academic progress related to participation in full-service community school after-school programming. Experimental and control groups were used. A repeated measures ANOVA was conducted on the math and reading grade data. It was found that the experimental group had statistically significantly higher post-treatment reading grades than the control group. Post-treatment math grades were also higher in the experimental group then in the control group, but did not reach the .05 level of significance. Implications, limitations, and recommendations for future research are discussed.*

Introduction

An increased emphasis on standardized test scores in measuring the quality of public school education has encouraged academic professionals to seek new and innovative ways to improve the academic performance of students (Smith, 2004, 2005). The full-service school model is one of the ways in which some professionals are attempting to meet this goal (Dryfoos, 1995; Kronick, 1997). Teachers and administrators are recognizing that a student who is hungry, tired, or under stress is not going to perform to his or her potential. A full-service school provides the resources to effectively address these pervasive obstacles to student success.

Essentially, full-service schools are attempting to lessen the likelihood that at-risk students will grow into adults who are stricken by economic and societal hardships (Kronick, 2005; Walsh & Murphy, 2003). Social learning theory (Bandura, 1977) provides a theoretical foundation from which to consider the full-service school model and behavioral change in relation to social influences. In part, Bandura posits that people learn vicariously through observation of other people, desirable as well as undesirable conduct. He suggests that young people come by attitudes, emotional reactions, and new approaches of behavior through observing others' actions; other people serve as models. In addition to learning through observation, Bandura (1986) adds that actions and consequences also impact behavior; children who are reinforced for their behavior tend to repeat these actions. Bandura also considered self-efficacy, a child's confidence in her/his ability to successfully perform an action, as a key component to behavioral change and achievement. Success breeds more success when children identify themselves as responsible for their own accomplishments.

Full-service schools implement social learning theory concepts to positively impact student academic success. This is accomplished by introducing students to a culture of achievement through positive modeling, teaching effective study habits, reinforcing desirable behavior and helping students increase self-efficacy. In addition, the children involved in full-service schools are exposed to these positives while being kept off of the streets, engaged in their school environments, safer, and able to develop stable relationships with supportive adults (Dryfoos, Quinn, & Barkin, 2005). All of these factors contribute to higher graduation rates (Kronick, 2000), and fewer instances of youth violence (Walsh & Murphy, 2003) which then lead to less poverty, more stability, and a lessened likelihood of involvement in the justice system as these students grow into adults (Kronick, 2005).

Full-Service Schools

Dryfoos (1994) presents an "idealized model of the full-service school," in which the services provided include 31 distinct programs offered either by the school, a community agency, or collaboration between the school and community agencies (p.12). These services include (but are not limited to) team teaching, effective discipline from the school, and social skills training. Comprehensive health, dental, family planning and mental health services, and health promotion activities are frequently offered through full-service school initiatives. These schools may provide family and community services such as child care, parent education, vocational training and employment services that are offered through agencies that are present in the school. The model that Dryfoos presents is very broad and could potentially touch every aspect of a student and family's daily life.

There are many elements that interact in order to produce a full-service school in any particular community. Even though two schools may both be considered "full-service," they can still look very different in practice. Full-service school programs are developed to address the needs of the students and communities they serve. A community needs to be looked at holistically in order to determine which needs of the children and neighborhood are not being sufficiently met through existing programming (Kronick, 2005). An agenda that will offer accessible services can then be constructed. Programming must be introduced in a way that respects the families and communities that are being served (Reynolds, 1992).

After-School Programming

After-school services have been available in many schools, in some form or fashion, for many years. Traditionally, the focus in these after-school programs has been keeping children supervised and off of the streets (Trammel, 2003). More recently, with the emergence of the full-service school movement, the focus has become broader, with after-school programs now providing a wider range of services. While some schools still offer just child-care and tutoring services, others provide recreational and enrichment opportunities that range from mentoring programs to sports clubs, cooking, fine arts, and foreign language classes (Kronick, 2005; Munoz, 2002; Trammel, 2003). Mentoring is an effective medium for children to increase self-efficacy (Miller, 2002). These programs offer a powerful vehicle through which children can increase self-efficacy by experiencing success in extracurricular activities. A child who is successful in these areas may be able to translate feelings of accomplishment into the classroom. After-school programming should be a "systematic part of overall school offerings" (Kronick, 2005, p. 21) and complement the regular school day (DeKanter, Adair, Chung, & Stonehill, 2003).

Evaluation Barriers

There are many barriers that hinder the accurate evaluation of full-service school efficacy (Cole-Zakrzewski, 2002; Dryfoos, 1995; Reynolds, 1992). The difficulty of keeping accurate and comprehensive records, the challenge of obtaining parental permission, and the high participant mortality rates all hinder full-service school program evaluation. Because of these barriers, there has been little quantitative data presented regarding full-service schools (Cole-Zakrzewski, 2002). The purpose of the present study was to evaluate the academic and social progress of students participating in one full-service school program through a quantitative evaluation of the program's after-school tutoring and enrichment component.

Although the idea of full-service community schools has existed for over a century (Dryfoos, Quinn, & Barkin, 2005), the empirical research base is scant. Outcome studies are often difficult to conduct due to the reluctance of parents to release their child's information, questionable program record keeping procedures, the time needed to see student change, and high mobility rates among students in these programs (Cole-Zakrzewski, 2002). This study avoids many of these pitfalls by tracking a small number of students who attended the after-hours tutoring and enrichment program regularly over the course of two semesters. The coordinators of the program have developed relationships with the parents/guardians of the participants, fostering trust and hence receiving informed consent. This study focuses on academic grades as a critical and meaningful outcome measure, as suggested by Kronick (2005).

Method

Participants

Twenty students at a Title I elementary school in the southeastern United States participated in this research. This number includes 11 after-school tutoring and enrichment program participants and nine control group participants. The students were in the third, fourth, and fifth grades.

At the beginning of the 2005-2006 school year, 42 students were chosen by the school counselor and the full-service school coordinator to be included in the after-school program. These students were chosen based on below-proficient standardized test scores in the areas of math and reading from the previous year. Twenty-two of the invited students received parental permission to participate in the program. Three of the 22 students only attended the program sporadically, two students were asked to leave the program because of extreme disruptive behavior, and three students stopped attending the program without explanation. This resulted in 14 regularly attending after-school program participants. Eleven of these students consented to participate in this research. These program participants made up the experimental group. Five of the experimental group participants were third graders, three were fourth graders, and three were fifth graders. The students ranged in age from 8.9 years to 11.2 years, with a mean age of 10.2 years. Eight of the program participants were female and three were male. Eight of the experimental group members were African-American, and three were Caucasian. The demographic composition of each group is summarized inTable 1.

Nine of the students who did not receive parental permission to participate in the after-school program acted as the control group. Four of the control group participants were third graders, two were fourth graders, and three were fifth graders. The students ranged in age from 8.5 years to 11.25 years, with a mean age of 10 years. Four of the control group participants were female and five were male. All of the control group members were African-American.

Dependent Variables

Assessment measures were based on historical and current data on math and reading grades. Academic grades data were collected by accessing student report cards. At the time data was collected, the report cards contained information for each of four six-week grading periods. *Star Student* tracking software was used to collect demographics such as age, grade, and race. *Star Student* is the software the school uses to summarize and track student information. Within this school district, grading is done on a 4.0 scale with no plus or minuses.

Independent Variable

The after-school portion of the full-service school program was conducted in a conference room in the elementary school. The room was equipped with large tables, chairs, blackboards, and a curtain which could be pulled to divide the room into two separate areas. The school cafeteria provided snacks each afternoon. The snack usually consisted of crackers or a granola bar with milk or orange juice. Left-over perishables were sent home with the children each afternoon.

Table 1

Demographic Information for Experimental and Control Groups

	Age	Race		Grade			Gender	
	M Years	African American	Caucasian	3rd	4th	5th	Male	Female
Experimental	10.2	8	3	4	3	4	3	8
Control	10	9	0	4	2	3	5	4

Volunteers were recruited from a local university. The program coordinators contacted undergraduate students through the honors program, the art education department, and the engineering department and invited them to participate in a volunteer opportunity with at-risk students. Thirty-two university students accepted the invitation to participate in the program. Six to eight volunteers were available each afternoon the program was conducted. The tutor to student ratio was approximately 1:3. The third through fifth grade students were asked to bring homework or a book to read each afternoon. The program had and offered several books of varying difficulty levels. If a student neglected to bring unfinished class material, he or she could choose a book to read.

The tutoring and enrichment program met four days per week. After school, program participants made their way to the conference room where they were divided into two equally numbered groups for ease of behavioral management. Once the groups were separated, snacks were distributed and tutoring began. Tutoring continued for an hour, and then enrichment activities began. Enrichment lasted approximately 45 minutes. After enrichment, the students and volunteers went to the front of the building to discuss the afternoon while waiting for the students' transportation. The children all left the building by 5 p.m. Based on the availability of volunteers as determined by the university academic calendar and previously established schedules, the program was conducted for 12 weeks of the 20-week public school semester during both the fall and the spring semesters.

Tutoring was conducted in one-on-one and small group environments, tailored to the needs of the students; several children may have been able to work together on a common assignment with the assistance of one volunteer, while another child needed individualized assistance. The tutoring followed the Hock, Pulvers, Deshler, and Schumaker (2001) *assignment-assistance* model. Through this mode of tutoring, students received help with teacher-assigned work. The teacher-assigned tasks usually consisted of grammar, sentence construction, and math worksheets. If a student finished his or her assignments before the tutoring portion of the day was complete, then a volunteer would conduct spelling or math challenges and games on the blackboard. Those students who neglected to bring class assignments were allowed to participate in the challenges and games after reading for a minimum of 30 minutes.

Enrichment activities varied depending on the semester and the day of the week. Drama, music, Spanish, art, science club, cooking, knitting and sewing, dance, and recreation activities were offered. In keeping with Bandura's social learning theory, social skills such as tolerance, team work, and patience were modeled by the volunteers and encouraged among the students throughout all of the enrichment activities. There was no formal social skills training provided to the students.

According to social learning theory, children are more likely to repeat behaviors for which they have been rewarded (Bandura, 1986). Miller (2002) states that children's self-efficacy can be improved by focusing on the positive aspects of behaviors, thus increasing the prominence of those behaviors in the child's memory. Based on these theories, a rewards system was used to promote self-discipline and task-related behavior. The students could earn points by demonstrating expected behavior. Small rewards, such as stickers or coupons for free dessert at a local restaurant, were distributed to students who earned a predetermined number of points. A student could earn bonus points by behaving in a manner that exceeded the expectations of the program. A program coordinator recorded points on a colorful chart which was kept in the room and was visible to students. Children also received verbal praise from their mentors when they behaved appropriately, and were encouraged to emulate their appropriately behaving peers.

In order to reinforce the positive academic and behavioral changes which were the goal of the program, family involvement in the program was encouraged. Family plays an important role in developing a child's beliefs about his or her abilities (Miller, 2002). Each day when the student's transportation arrived, a program coordinator would accompany the student to the car, greet the parent, and provide a brief report describing the student's positive accomplishments that day. In the last weeks of the fall and spring semesters, the program coordinators hosted family night celebrations. At these celebrations, dinner was served, the student's artwork was displayed, and the students performed a play and Spanish songs that they had been practicing during enrichment. About 50 family members attended each of these events. According to teachers and office personnel, these were significant turnouts for family events at this particular school.

Results

The two dependent variables in this study are reading and math grades. Grades were recorded pre- and post-treatment to assess student change. A repeated measures ANOVA was conducted to determine strength and direction of grade change.

Reading Grades

When a repeated measures ANOVA was conducted on the reading grade data, a significant interaction between time and group was found, $F(1, 18) = 9.236$, $p = .007$. Two different post hoc analyses were performed, examining group differences within each time point and time differences within each group. The mean reading scores for the experimental group were T1 $M = 2.63$, T2 $M = 2.95$; and for the control group were T1 $M = 2.58$, T2 $M = 1.96$.

Within each time point, reading grades were compared between experimental and control groups using independent sample t-tests. Pre-treatment measurements indicated no statistically significant difference between the experimental and control groups' reading grades, $t(18) = .115$, $p = .910$. Post-treatment measurements indicated a significant difference, at the .05 level, in reading grades, $t(18) = 2.290$, $p = .034$. Post-treatment, the experimental group was found to have statistically significantly higher reading grades than the control group. Reading grade data are displayed in Figure 1.

Within each group, reading grades were compared pre- and post-treatment using paired t-tests. The experimental group showed no statistically significant difference between mean reading grades, $t(10) = -1.466$, $p = .173$. The control group showed a statistically significant difference between mean reading grades, $t(8) = 2.944$, $p = .019$. The mean reading grade at the first measurement was statistically significantly higher than the mean grade at the second measurement, at the .05 level of significance.

Math Grades

A repeated measures ANOVA was also conducted on the math grade data. A statistically significant interaction between time and group was found, $F(1, 18) = 6.332$, $p = .022$. Two different post hoc analyses were performed, examining group differences within each time point and time differences within each group. The mean math scores for the experimental group were T1 $M = 2.26$, T2 $M = 2.50$, and for the control group were T1 $M = 2.69$, T2 $M = 1.66$.

Within each time point, math grades were compared between experimental and control groups using independent sample t-tests. Pre-treatment measurements indicated no statistically significant difference between the experimental and control groups' math grades, $t(18) = -.861$, $p = .401$. Measurements indicated that while the difference in post-treatment grades was not statistically significant, findings approached significance, $t(18) = 2.290$, $p = .073$. Mean math grades were higher in the experimental group then in the control group, post-treatment. The math grade data are displayed in Figure 2.

Within each group, pre-treatment and post-treatment math grades were compared using paired t-tests. The experimental group showed no significant difference between mean math grades, $t(10) = -.989$, $p = .346$. The control group showed a marginally significant difference between mean math grades, $t(8) = 2.165$, $p = .062$. While the experimental groups mean math grade rose from pre- to post-treatment, the control group's mean math grade post-treatment was lower than the mean math grade pre-treatment.

Discussion

It was found that children who participated in the after-school tutoring and enrichment program scored significantly higher in reading and marginally higher in math, post-treatment, than children who did not participate in the after-school program. This implies that

Figure 1. Reading grade data.

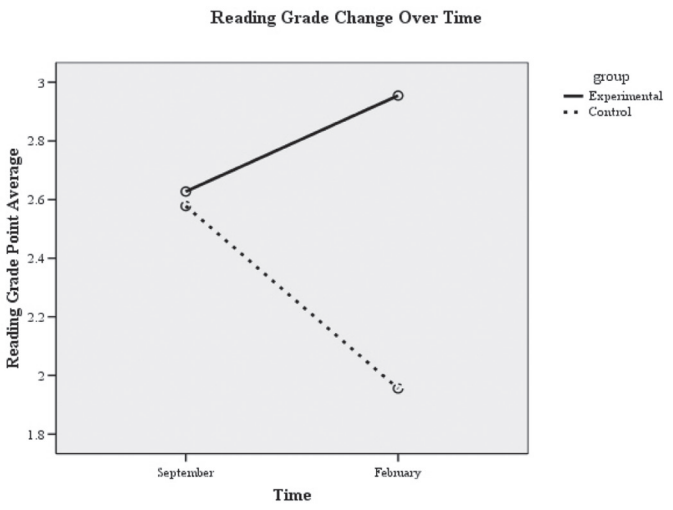
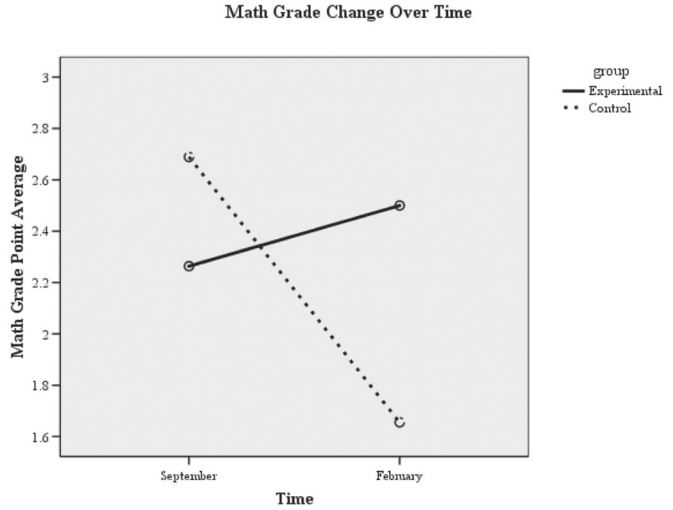


Figure 2. Math grade data.



program participants derived measurable benefit from involvement in the program.

There are many factors at work in an elementary school student's life. It is difficult to isolate the treatment as a definitive cause of change; however, it appears that factors related to the decrease of the reading and math grades in the control group were ameliorated in the experimental group. While the reading grades of the experimental group students only increased slightly, they were maintained in the low B range. The experimental group's reading grade point average was from 2.63 to 2.95. During the same time period, the control group's reading grades decreased, from a low B average to a C average. The control group's reading grade point average fell from 2.58 to 1.96. The experimental group's math grades were maintained in the high C range, with a math grade point average from 2.26 to 2.50. Math grades decreased in the control group, from a low B average to a low C average. The control group's math grade point average fell from 2.69 to 1.66. Findings suggest that participation in the full-service school after-school tutoring and enrichment program had a positive impact on maintaining the reading and math grades of the experimental group students.

There are several different aspects of the program that could have contributed to the benefit experienced by participants. Tutors read with experimental group students, one-on-one, for a minimum of 20 minutes per day, four days per week. Students were encouraged and assisted when working on math homework. Encouragement and assistance allow children to feel some measure of academic success and to experience rewards related to completing homework, thus increasing self-efficacy and the likelihood that effort will be put into reading and math assignments in the future (Bandura, 1986; Miller, 2002). These students received consistent positive attention from young adult tutors for two hours per day, four days per week. The experimental group students were able to spend time with young adult volunteers who attended college and valued education. Through social modeling, these factors reinforce the pursuance of education and the importance of academic skills building (Bandura, 1986). Although no effort was made to track the activities of control group students, when asked what they would be doing if they were not in the after-school program, most experimental group students answered that they would be home alone, watching television, or caring for younger siblings. These same experimental group students stated that they would rather be in the after-school program than home. It is difficult to determine, through the data collected for this study, which of these factors most influenced reading and math grades, yet findings suggest the treatment group benefited from these factors.

Anecdotal observations of student change provide additional evidence that after-school program efforts made a positive impact on students' sense of self-efficacy. At the beginning of the Full-service School After-school Tutoring and Enrichment Program, many participants read very reluctantly. Only if it was required would they pick up a book. Confidence in their reading abilities was so low that when asked to read aloud to an adult many of the students would state that they didn't know how to read. Throughout participation in the program, experimental group students were supported and encouraged in whatever reading abilities they possessed. Many students were more competent than they first realized. Over the course of program participation many of the students acquired confidence in their reading abilities, as evidenced by increased fluency and willingness when reading aloud.

The marginal difference in between group post-treatment math grades could be due to several factors. Bogan (1997) found that when adult tutors regularly spent 30-45 minutes per week with low-achieving elementary school students focusing on basic mathematics concepts, the students experienced rapid improvement in their math skills.

There are several important differences between Bogan's research and the present study. Before beginning, Bogan's tutors received "general tips and information" (p.46) regarding available resources for math tutoring at the elementary level. As standardized testing approached, Bogan's tutors spent increased time reinforcing computation, fact recall, testing strategies, and problem-solving skills. The students and tutors in Bogan's research were each allowed a quiet, private study area. The tutors in the present research were not given any specific guidance or resources for assisting elementary school students with math, and consistently focused on completing teacher-assigned tasks. Additionally, the students and tutors worked in a communal area that frequently became noisy. Although the experimental group students scored higher in math, post-treatment, than the control group students, the advantage of participating in the program might have been greater with proper tutor training and quiet work areas.

Suggestions for Future Research

There is one obvious difference between the experimental and control groups. The experimental group members received parental permission to participate in the after-school program, while the control group did not. There are a number of reasons that a parent may have denied his or her child permission to participate in the after-school tutoring, such as an unstable home life or transportation issues (Cole-Zakrzewski, 2002). It is unknown why certain parents denied their children permission to participate in the after-school program. This myriad of undefined reasons separating the experimental group from the control group constitutes a limitation of this study.

Another difference is the discrepancy in the gender and race composition of each group. The experimental group was 27% male, and 73% female. The control group was 56% male, and 44% female. Research has found that at age nine females are higher achieving than males in reading (Perie, Moran & Lutkus, 2005). Because the experimental group consisted of a higher percentage of females than the control group, this creates a possible explanation of the higher post-treatment reading grades within the experimental group. The counter argument is that pre-treatment reading grades were comparable between groups. The gender discrepancy would not account for the difference in post-treatment math grades. This is supported by Perie, Moran, and Lutkus' (2005) findings in the same study that at age nine males and females did not display statistically significant differences in math achievement.

A factor that could have affected post-treatment reading scores is the percentage of children in each grade level per group. Third grade is a particularly difficult one for many students because it is when instruction changes from verbal to written. If a child cannot read proficiently by third grade, he or she will be unable to maintain suf-

ficient academic achievement (R. Kronick, personal communication, Fall 2004). If the groups were not matched by grade level, it would be expected that curriculum differences could contribute to differential achievement change over the course of the school year. Because of this, the percentages of students in each grade were roughly equivalent between groups.

Race differences between groups could account for part of the post-treatment achievement gap. Perie, Moran, and Lutkus, (2005) found that at age nine, on average, Caucasian children outperformed African-American children in the areas of reading and math. In the current study, the experimental group was comprised of 27% Caucasian students and 73% African-American students, while the control group consisted entirely of African American students.

The small number of students in each group also limits external validity or generalization. A maximum of 14 students regularly attended the after-school tutoring and enrichment program and the upper limit of each group's size was dictated by this number. Ideally all of the students who initially received parental permission to participate in the after-school tutoring and enrichment program would have attended regularly. In reality, however, many students sporadically attended the program, or routinely attended just one day per week. These students were not included in the experimental group and may have been a distraction to the students who did regularly participate in the program.

The small size of the control group can partially be attributed to the difficulty in obtaining informed consent from the student's families. It was difficult to establish rapport with several of the control group students' parents because they did not spend time at the school. The researcher was not able to contact families by telephone until written informed consent had been obtained, however many of the parents were unable to read or understand the informed consent document. This proved to be the most difficult aspect of conducting this type of research. Among those parents who did read the informed consent document, there was some suspicion about the motives of the researcher. Some parents voiced concern that their child would be discriminated against or negatively labeled as a result of the data collected.

In future research, every effort should be made to obtain informed consent at the beginning of student recruitment for the program. There are benefits to addressing program evaluation with the parent at the beginning of the program. The parent would have the opportunity to understand that the program is meant to bring about measurable improvement in their student's academic life, in addition to free and convenient childcare. Approaching parents regarding program participation and informed consent simultaneously might contribute to increased parental permission for program participation. This would ultimately benefit the students by giving them the opportunity to be involved in a valuable program.

It would be useful to determine which elements of the after-school program were most beneficial to participating students. Research which addresses the academic achievement and social progress of students participating in mentoring and enrichment versus students participating in tutoring may offer specific intervention strategies for administrators who desire student improvement in specific academic subjects.

Conclusion

In collecting data for this research, many students, parents, teachers, and staff were encountered. The overwhelming response from the control group students was that they wished to participate in the after-school tutoring and enrichment program. At times it was difficult to explain to them that they could not begin attending immediately, and that the research only involved accessing their records. To manage this, a wait-list control research design is recommended for future studies. All of the teachers that were spoken with were very supportive of student participation in the program. The Full-service School After-school Tutoring and Enrichment Program has had a positive impact on participating students and has a favorable reputation among the students and teachers at the school.

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Article

Trouble in a Small School: Perceptions of At-Risk Students in a Rural High School

Heath Marrs, Erica Hemmert, and Jenna Jansen

Abstract: *This study investigated school engagement among at-risk students in a rural high school. Nine students were interviewed as part of a program evaluation of an intervention program for students at risk for academic failure and school dropout. Students were asked about their perceptions of the school experience, their relationships with other students as well as teachers and staff, and their experiences in the classroom. Using the concept of school engagement (Fredricks, Blumenfield, & Paris, 2004) as a theoretical background, a number of issues were identified that may help researchers and educators understand the unique experiences of at-risk students in a small, rural high school. These issues include the difficulty of fitting into the dominant social group, overcoming the reputation of "problem student," and the struggle to become engaged in class*

A pressing issue for high school educators today is the development of effective interventions for students at risk for school failure. Research focused on understanding the high school experiences of at-risk students is important for developing effective interventions that may help address the problem of school failure (Brown, Higgins, & Paulsen, 2003). In this study, we sought to develop a greater understanding of the experiences of at-risk students in a rural high school by investigating their levels of school engagement.

Introduction

School Engagement and Rural At-Risk Students

One theoretical concept that provides a helpful framework for understanding the experiences of at-risk youth in a rural high school is the multifaceted concept of "school engagement." Fredricks, Blumenfield, and Paris (2004) describe three types of engagement: behavioral engagement, emotional engagement, and cognitive engagement. Behavioral engagement in school refers to involvement in school-related activities. Small rural schools are ideal for promoting the behavioral engagement of students because of the fact that there are a limited number of students for the various activities (sports, clubs, band, etc.) available, and it is well-known that extracurricular involvement leads to positive outcomes for students (Mahoney & Cairns, 1997). Because of the increased number of opportunities to be involved, behavioral engagement may look somewhat different for at-risk students in rural high schools compared to their counterparts in larger urban and suburban schools.

In contrast to behavioral engagement, emotional engagement refers to the emotional connections that students have with teachers, students, and academic work. Strong, positive emotional connections tend to lead to greater commitment and enjoyment of school (Fredricks et al., 2004; Wentzel, 1998). This study addressed the unique experience of emotional engagement among at-risk students in a rural high school. Other researchers have explored the unique emotional experiences of students in small versus large classrooms. One study (Boyesen & Bru, 1999) found that interpersonal conflicts were more likely to lead to emotional problems for students in small classes as opposed to large classes. The intimate interactions and frequent contact found in small classrooms seem to intensify emotions, both positively and negatively. Also, many adolescents experience a sense of alienation from peers, adults, and the school experience in general (Brown et al., 2003). How do students deal with negative interactions in a small school, particularly when it is difficult to get away simply because of the size of the school? How do conflicts and peer difficulties affect the at-risk student in the small, rural high school? This study explored these questions by listening to student voices as they shared their experiences.

In addition to behavioral and emotional engagement, cognitive engagement refers to the effort students put forth towards their academic work (Fredricks et al., 2004). How motivated are they to work hard, solve problems, and master difficult concepts? What types of learning strategies do they use? Students differ in how cognitively engaged they are in the school experience, and there seem to be clear developmental trends with regards to academic motivation, with students becoming less cognitively engaged as they progress through their school career. This study examined the cognitive engagement of at-risk students in a rural school. How do they experience classroom activities, and what do they like or dislike about their classes?

What difficulties do they experience in the classroom? How does the environment of the classroom affect engagement?

At-Risk Students in Rural Schools

Although rural schools provide an environment that may be especially conducive to educational success, dropout rates vary widely among rural school districts (Tompkins & Deloney, 1995). Many rural schools are located in communities that are characterized by disadvantages that may contribute to school underachievement, such as poverty, vulnerabilities to economic downturns, declining populations, and lack of cultural resources and health services. Also, some rural schools may lack curricular diversity and have difficulty recruiting and retaining highly qualified staff. Because of the unique situation facing rural schools and students, and the lack of studies on this population, research focused on understanding school engagement in rural at-risk students is needed.

Writing in 1989, one researcher (McCaul, 1989) noted that despite a vast research literature on the dropout problem in America, little research had been conducted on the unique challenges of the rural dropout. Hedlund (1993) noted that few studies have focused on the needs of rural students in general, while Khattri, Riley, and Kane (1997) stated that "little comprehensive research currently exists examining why students in rural schools are not performing as well as their suburban counterparts, and what solutions might be available (p. 79)." Although research is available on rural students and rural schooling in general, very few studies have focused exclusively on rural students considered at risk for school failure (Tompkins & Deloney, 1995). A review of the literature identified studies on rural school personnel's perception of children at risk (Storer, Cychosz, & Licklider, 1995), the perceptions of rural students at an alternative high school (Griffin, Richardson, & Lane, 1994), and descriptions of various intervention programs (Bates, 1993; Smith, Hill, & D'Andrea, 1995). However, only one study (Bloom & Habel, 1998) was identified that specifically examined the experiences of at-risk students in rural schools.

In this study, Bloom and Habel (1998) interviewed 39 students (8 females, 31 males) with behavioral disorders or students who were identified as at risk for behavioral disorders from various grade levels (elementary, middle, and high school). Students were asked to describe their experiences in school, and the authors identified two major themes in the responses. The first theme, community, referred to the various relationships that students experienced in the rural school setting. They noted that despite the greater potential for a sense of community in a rural school, it may be even more difficult for students with behavioral disorders in rural schools (as opposed to larger schools) to experience a sense of belongingness to the school community. Students described great difficulty in fitting in to the mainstream student culture as well as a perception that teachers were difficult to connect with. The second theme, competence, referred to the struggles that students experienced with their academic work and their desire to leave school as soon as they were old enough to drop out. Students reported that although a few teachers were willing to help them with their struggles, many times teachers held low expectations or failed to provide support for making improvements.

Other studies have explored the issue of rural dropout from a broader perspective. Using a large national database, McCaul (1989) studied the demographic characteristics and attitudes of rural dropouts. Rural dropouts in this study were more satisfied with failing to obtain a high school diploma and had diminished expectations for higher education. Also, when compared with urban and suburban students, rural dropouts were more likely to drop out for reasons such as getting married and pregnancy. McCaul (1989) also found that when compared to rural students who completed high school, rural students who dropped out had lower self-esteem and tended to view life with an external locus of control. However, when dropouts were tested two years later, there was no significant difference in self-esteem. This finding seems to point towards the school environment as a possible influence on self-esteem for students who drop out. Students also mentioned the inability to get along with teachers as a main reason for not completing high school. McCaul (1989) found that dropouts perceived more problems in the areas of fairness of discipline and teacher treatment of students. This research is "consistent with the common view of the dropout as alienated from the school environment" (McCaul, 1989, p. 51).

In a qualitative study, Hedlund (1993) investigated the unique experiences of rural adolescents. With regards to their educational experiences, Hedlund (1993) concluded that the "sense of community" was one of the unique social elements of the rural high school. The tight-knit social structure common in most rural high schools allows students the opportunity to form close relationships with peers and staff, but may also create unique sources of stress. Students were closely connected with others, but consequently experienced a lack of privacy. Also, social divisions (i.e., cliques) seemed to be an added source of stress. Although Hedlund's (1993) study did not focus on at-risk students, the description of the social structure of a rural high school may be helpful in understanding how social dynamics affect at-risk students in the unique environment of a small school.

Clearly, rural at-risk students need assistance and support to become more engaged in their school experience. As noted previously, there is a need for a better understanding of the experiences of at-risk students in rural schools due to the lack of research on this particular population. In this study we investigated school engagement among at-risk students in a rural high school. Although each school culture is unique, this study provides a glimpse into the experiences of a group of at-risk students at one rural high school. This glimpse may help illuminate issues that will be important for educators to be aware of as they seek to support at-risk students in rural schools.

Method

Participants

Nine students (six females, three males; four freshman, three sophomores, two juniors) from a small (less than 200 students in grades 9-12), rural high school in the midwest who were identified as at risk by school personnel were interviewed about their perceptions of their school experiences. The high school was located in a small farming community that was similar in many respects to other small, midwestern communities. However, the school was unique in some ways. Although most of the students were white (one student was African-American), the community was founded by a particular ethnic group, and the ethnic group continued to exhibit a strong influence on the community. In addition, the school had a reputation

The following discussion describes some of the important insights provided by students during the interviews as well as the observations of the primary evaluator of the program. This discussion focuses primarily on the levels of behavioral, emotional, and cognitive engagement demonstrated by the students identified for the intervention program, rather than the specific characteristics and outcomes of the intervention program itself.

Results

Behavioral Engagement

One of the themes that emerged from the student interviews was the difficult social experience in the high school. Like other high school students, the student participants in this study were very attentive to the social complexities of high school life. One of the areas that students talked about the most was the social experience, particularly with regards to peers and their opportunities to engage with peers. The experiences of at-risk students in this rural high school, at least with regards to extracurricular activities, were unique when compared to the typical stereotype of the disengaged potential high school dropout. Many of the students were involved in school activities, such as band or even service clubs, but at the same time they were very aware of how they fit in with the others around them. One student noted that her school was very much a "sports school" and if you didn't play sports you were often left out. "Jocks" and "preps" had few problems fitting in, but if you were different at all, the social experience was a challenge.

As is the case for most adolescents, students described a difficult social experience characterized by clear recognition of different social groups, a sense of alienation from the rest of the student body, and name-calling and gossiping. Four of the nine students (44%) interviewed described in detail emotionally-laden encounters with their peers. These peer relationships are crucial, and when they are negative, they likely contribute to the sense that school is a place that is dangerous and uninviting.

Interviewer: *Well, do you like the other students here at the high school?*

Student: *Not all of them. We have a lot of snobby people at our school.*

Interviewer: *How so? How are they snobby?*

Student: *They just think they are better than everyone else.*

Interviewer: *OK.*

Student: *Like, "oh, well, you're not cool."*

Interviewer: *So you feel like a lot of them think that you aren't cool?*

Student: *No, I don't care. I'm just saying that I think that a lot of them think they are too good for everyone else. I could care less what they think.* (Ashley)

These students clearly recognized the social hierarchy that existed among students in their school, and they situated themselves outside the inner circles of the hierarchy. Although one student seemed to brush off the exclusion ("I could care less what they think"), it is likely that these experiences were extremely painful. Though it is easy for some to characterize at-risk students as poor students who are unwilling to do academic work, the connection between exclusion from peers and their dislike of school was evident, as demonstrated in this excerpt.

Interviewer: *What do you think of high school so far this year?*

Student: *I think it kind of sucks. I don't really like school at all.*

Interviewer: *Why not?*

Student: *Cause I get in trouble and I'm not like, I don't really like, I'm not in the genre of our school or whatever because I don't go to sports and I'm not kinda preppy. I just don't like our school, really. (Becca)*

Later in the interview, this student shared how her perception of the school experience was filtered through the recognition of the different genres of students.

Interviewer: . . . Because you are not in the genre, how does that affect your experience in school?

Student: Um, I don't know. Cause I think, sometimes, I get treated different. Like in classes or whatever, like it may not seem like it. Like I know I cause trouble and stuff, but you know and I admit it, but if something is happening in the classroom or whatever and they'll do something and they'll get away with it more than I will or somebody else. (Becca)

Irrespective of how accurate their perception of unequal treatment from school staff was, it seems clear that for this student being excluded from the dominant peer group led to a perceived cycle of discrimination from teachers and alienation from other students.

Two of the students interviewed (22%) described how these social conflicts would lead to "harassment" or even fights, which then led to disciplinary incidents such as suspension. Although these types of experiences are likely common among urban and suburban students also, they may be exaggerated in the small classrooms and intimate hallways of the rural high school. Students see each other all the time. They share many of the same classes, are involved in the same activities, and there are many opportunities to experience the emotional distress of interacting with peers from whom they are alienated.

Emotional Engagement

Another prominent theme in the student interviews was the often strained relationships with teachers and the difficulty in overcoming the perception of being a problem student. Relationships with teachers and other school staff were important to the students, and these relationships may be especially noteworthy because of the unique social structure of a small, rural school. The unique characteristics of small high schools have been investigated for some time (Barker & Gump, 1964), with many researchers concluding that small schools are often advantageous for helping students develop academically, socially, and personally.

One of the ways in which small schools are advantageous is by allowing closer relationships between school staff and students. Students described a number of relationships with school staff, both positive and negative, that were meaningful. Most of the students interviewed (78%) described at least one teacher who was supportive and offered help when they experienced difficulty. However,

two students (22%) described teachers who automatically assumed that they were causing trouble, as mentioned in the previous section where one student mentioned the perceived consequences of not fitting into the genre of the school. One student, referring to school staff, described it this way:

They just have a negative attitude towards everything. Like if you're walking in the hall, they'll be like, "Where are you going, are you gonna go do something bad?" And they're always thinking that you are gonna go do something or like if you do something, then it's like automatically bad or they'll just make you look like a bad person. And, I don't know. That's just how I feel about it. (Kyla)

Starting over, getting a fresh start, and overcoming a reputation for bad behavior are extremely difficult in a small school, and students often expressed an awareness of how teachers viewed them. These perceptions often colored their interactions with teachers, and created a difficult learning situation.

Student: *Yeah, like Miss . . . . I don't know, she just, we have a little feud kind of. But it's been better this year since I've gotten back.*

Interviewer: *What kind of a feud?*

Student: *I don't know. She just, she hasn't liked me, and I haven't liked her cause, I don't know, I just don't. I don't like the subject and I guess that's part of it. But I don't really like her. She knows that. And I know that she doesn't like me. Like I said, I speak my mind about lots of things. (Jill).*

In their study of at-risk students, Croninger and Lee (2001) discussed the important role of teachers as a source of social capital. Social capital refers to the social connections that allow access to information, advice, opportunities, and other societal advantages. For example, students from upper-class families typically have connections to other people with financial resources and educational backgrounds who can provide helpful social support, whereas students from poor families may lack similar connections. Schools have the opportunity to become the most consistent and influential source of social capital during the school-age years because of the amount of time students spend within school walls. Consequently, teachers can be a tremendous source of social capital. Croninger and Lee (2001) found that students who are most at risk of dropping out have the most to gain from informal exchanges with teachers. Although the opportunity to benefit from the social capital of teachers was available to the at-risk students in this study, student perceptions of how teachers and staff viewed them likely countered the possible benefits of positive interactions with teachers.

Cognitive Engagement

Students were not only challenged by the typical demands of fitting in to the peer culture and getting along with school staff, they also experienced many difficulties with their academic work. Students showed little evidence of cognitive engagement, as demonstrated by their lack of excitement and motivation for learning and the academic experience of high school. Tests were often difficult, and keeping up with the pace of instruction in class was a struggle. Four of the students (44%) mentioned that it was a struggle to complete homework on a daily basis, and two students (22%) mentioned that even coming to school and staying there rather than leaving for lunch and not coming back was a major accomplishment. One student, conflicted, had this to say:

I wanna get better at my grades or whatever, but actually doing it and like doing my homework and studying and getting that stuff done is probably the most challenging. I just, I don't really like school. And I don't really like doing homework. And probably staying out of trouble and stuff like that. Because I've gotten a lot of ISS's and stuff like that this year. (Marie)

Clearly, for many of the students, success and enjoyment in the academic setting was a foreign experience.

Although individual factors (i.e., low academic skills, prior performance, lack of motivation) certainly played a role in the lack of cognitive engagement among the students interviewed for this project, two female students described some of the contextual factors that, at least from their perspective, contributed to the difficulty in becoming engaged in academic work. One of these factors was the perception that their coursework was irrelevant. One student, talking about her unwillingness to finish her homework in a class, stated:

Student: *I just don't want to. It takes too much time. Besides, it's not like I'm gonna say, "Hm, what is the angle bisector of this triangle?" When do you do that in work? I mean. I'm not gonna do that. I'm not going to be a veterinarian and be like, "Hm. This is the angle bisector of this dog's leg." I'm sorry but you don't do it. "Hm, what is the square root of this number here?" I don't know. Go get a calculator. (Deena)*

Another student mentioned the frustration of moving through coursework at a fast pace without really understanding the material.

Interviewer: *What things are frustrating about your classes?*

Student: *I think that some of them move too fast. Like in . . ., Mrs. . . . , got mad the other day because I told her that we should slow down because a lot of kids in my class weren't getting what we were doing. But nobody would actually say something so of course I said something. And I was like, "Well, maybe if you would like slow down and let us work on this a little bit" And she was like, "No, we have to get through this," or whatever. And so, and I think they like give us, maybe it's just me because I don't learn as well or something, but I think that we go like too fast. (Jill)*

Although this student endorsed work-avoidance goals ("we have a lot of homework"), the desire to "understand" what they're learning is certainly a positive motivation, one that is evident in a student who is cognitively engaged in their academic work. The pressure to "cover the curriculum" is great in high schools today, and at-risk students, particularly those with learning difficulties, may be particularly vulnerable to falling behind. Because of this, an important role for support programs for at-risk students may be to help them keep up with the pace of instruction before digging a hole that is too deep to recover

from. At the same time, a greater emphasis on understanding versus rote learning in instruction will likely help at-risk students, and all students, stay engaged in their courses and academic work.

Discussion

This project explored the perceptions of at-risk students attending a rural high school. Understanding the unique experiences of students in small, rural schools is a helpful addition to the current literature examining school failure among high school students. Much of the current research on dropout and preventing school failure is focused on the problems of large, urban districts with high drop out rates (Lehr, Hansen, Sinclair, & Christenson, 2003; Somers & Piliawsky, 2004). Understanding the unique context of the rural high school and the experiences of students on the margins should prove helpful to educators seeking to provide effective interventions in rural districts.

Our analysis of the student interviews identified a number of issues related to school engagement that students mentioned as important components of their school experience. Each of these issues provided examples of the difficulties students faced in the areas of behavioral, emotional, and cognitive engagement. Some of the students described a difficult social experience and an awareness of how they did not fit into the social structure of the school. They also mentioned that relationships with teachers were often troubled. While difficulties with academic engagement are common among at-risk students in a variety of settings, the social experience and relationships with teachers may be unique for at-risk rural students compared to the experiences of at-risk students in urban and suburban schools.

This study raises a number of questions regarding the experiences of at-risk students in small, rural schools. First, how does the social context of a small school uniquely affect at-risk students? Although many of the students who were interviewed for this project described challenges commonly faced by all high school students, such as fitting in with peers, the status of being an at-risk student in a small school seems to produce some unique challenges because of the nature of the social climate.

As noted by Hedlund (1993) and Bloom and Habel (1998), students in rural schools seemed to be very aware of the close-knit social structure of the school. Relationships with both teachers and other students in a small school can be supportive or difficult depending on the unique nature of the relationship. These elements were also reflected in our interviews. There are fewer outlets for students who do not adopt the norms of the dominant student group, as noticed by the student who shared that they did not fit into the particular genre of the school.

Relationships with teachers may also be unique in the small, rural high school. In a small school, everybody knows everybody, and preconceptions formed by teachers about certain students are probably common and difficult to avoid. Some of the at-risk students seemed to pick up on these preconceptions, and it certainly may have affected their approach to a particular teacher or course and may have led to a self-fulfilling prophecy of failure. The intimacy of a small school may be both a blessing and a curse for at-risk students (Watt, 2003). The potential for close, supportive relationships with teachers is certainly possible, while it is also easy to foster a reputation as a "trouble-maker" in the eyes of teachers, staff, and other students. In a study analyzing data from the National Longitudinal Survey of Adolescent Mental Health, Watt (2003) found that small schools may in fact be detrimental to student mental health. Watt (2003) cautions that more research is needed before conclusions can be drawn, but it does raise the question of how small schools affect marginalized or at-risk students. For some of these students, the close-knit social structure may be advantageous, while for others it may cause increasing stress. The students in our interviews certainly mentioned difficult relationships with others and their place within the social network of the high school as important aspects of their school experience.

In addition to social context, this study raises questions regarding the link between relatedness and cognitive engagement (Stipek, 2002). Although sometimes neglected in discussions of cognitive engagement, Stipek (2002) suggests that discussions of motivation and learning in educational settings need to consider the role of interpersonal relationships in the classroom. Students who feel accepted and connected to other students are more likely to take on the values of the group. Likewise, students who sense a connection with teachers are more likely to enjoy engaging in activities that teachers deem important. Some of the students in this study clearly experienced negative interactions with teachers, leading to a cycle of disengagement from the teacher as well as academic tasks. The interactions between relatedness, emotional engagement, and cognitive engagement are likely to be particularly relevant for at-risk students in small schools.

Limitations

Conclusions drawn from this study are certainly speculative considering the small sample size and the unique characteristics of the particular high school studied. In addition, students were selected by school personnel rather than the researchers. Although the general selection procedures were described by school personnel, the definition of "at risk" was somewhat ambiguous and the sample included only those who were perceived to be "at risk." Another limitation is the prevalence of females in the sample. The males in the study offered less information, and there may be important gender-related issues that need to be explored. For some reason, the males in the intervention group shared very little about their experiences in school during the interviews, which resulted in very little data for analysis. McCaul (1989) suggested that more research investigating the unique experiences of rural female dropouts is needed. Hopefully, in spite of the limitations, the perspectives of the females in this study have contributed to a better understanding of the female experience in the rural school.

Conclusions

In conclusion, this study has offered a glimpse into the experiences of at-risk students in a small, rural high school. In the interviews, students shared experiences, perceptions, and attitudes that provide indications of their levels of behavioral, emotional, and cognitive engagement in school. Students were particularly forthcoming about their social experiences in high school, and helping students develop greater emotional engagement with school and others is a

potentially effective intervention strategy. Effective interventions are likely holistic, offering not only academic support to increase cognitive engagement, but also assistance in developing positive relationships and encouragement to become involved in positive activities. Future research exploring both the experiences of at-risk students in rural schools and the effectiveness of interventions are needed to help address the continued needs of this population of students.

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Appendix

Student Interview Schedule

1. What is it about the program with ------ that attracted you to it?
   a. Who influenced you in deciding to join the program?
   b. What are some of your goals for being in the program?

2. What activities have you been involved with at school this year?
   a. If none, what keeps you from being involved?

3. What community activities are you involved in? Why not? What activities?

4. Have you ever participated in a community service-project? What do you think of community service?

5. What do you think of high school so far this year? What do you like; what don't you like?

6. What has been the most challenging thing for you this year?

7. If you can remember back to when you were a freshman, what was the most difficult thing about moving from the middle school to high school? What can the school do to make it easier?

8. How can the school be more supportive to you?

9. Do you like the other students? the teachers? Do you feel supported by them?
   a. What is it that you like? Dislike?

10. What things are frustrating about your classes? What things do you like about your classes?

11. When things go badly (school, friends), where do you go for help?

12. How do your parents feel about your performance in school? Are they supportive of your schooling?

13. What do you want to do when you get out of high school? What are your dreams for the future?

14. Have you ever been in trouble at school (i.e., detention, suspension)?
   a. What happened?
   b. What did it feel like to be in trouble? What did you think about when it happened?