

# **Evaluation of a Year-Long Art-and-Literature-Based Approach to Writing September 1997- June 1998**

Beth Olshansky  
Patrick J. Cunningham  
Susan Frankel, Ph.D.

## **Claim Statements**

Based on the analytical evaluation of 555 first- and second-grade students' art and writing samples using controlled groups, it was determined that:

Claim I: Regardless of prior levels of achievement or socio-economic standing, there is significant improvement in the text of stories written by students who have participated in the Picturing Writing and Image-Making processes as compared to students who have not.

Claim II: Regardless of prior levels of achievement or socio-economic standing, there is significant improvement in the use and quality of visual elements for the purpose of conveying their ideas for students who have participated in the Picturing Writing and Image-Making processes as compared to students who have not.

## **Design**

A three-sample treatment/comparison group design was used to evaluate the effectiveness and impact on student writing of Picturing Writing and Image-Making as an alternative writing program. The treatment group participated in Picturing Writing from September until February break and Image-Making from March through the end of May. Students in the treatment group participated in the process 2–3 times a week for 60-90 minutes. Students in the comparison group participated in the language arts programs typically used at their school. For each claim, data was collected from the treatment and comparison groups three times: a September base-line sample, an end of January sample, and an end of May sample.

## **Sample**

The study involved 555 first- and second-grade students from 13 schools in 3 different states: New Hampshire, Hawaii, and Texas. Because of the striking body of evidence which demonstrates that success in developing literacy skills during the primary school years is crucial to success throughout one's school career (Anderson et al, 1985, McPartland and Slavin, 1990), first and second grade students were targeted for this study. Sites were selected to insure that participating students represented a range of achievement levels, socio-economic levels, and geographic regions. The treatment group was comprised of 16 classes of students who participated in Picturing Writing and Image-Making as a year-long language arts program. The comparison group was comprised of 12 classes of students who were participating in the language arts program that was currently being used in their classroom. Every effort was made to insure that the students in the comparison group were demographically matched to students in the treatment group. The percentage of students on Free and Reduced Lunch Programs was used as an

indirect indicator of socio-economic status in order to match student populations. Students were also matched by geographic region and population density.

### **Instrumentation and Procedures**

In order to evaluate the use of the two different languages used within Picturing Writing and Image-Making (the language of words and the language of pictures), two different scoring instruments were needed. The precedent for using non-standardized tests for the evaluation of children's writing was established by Dr. Donald Graves in his early research on the writing process (Graves, 1983) and has been used by many researchers in the field. Two scoring instruments had been previously developed at the University of New Hampshire in 1991 by two different panels of first- and second-grade experts for use in a preliminary study of Image-Making Within The Writing Process. Because these instruments had passed the rigorous evaluation process of the US Department of Education's National Diffusion Network Program Effectiveness Panel, it was determined that the evaluation instruments which were used in the previous study were both appropriate and effective.

*Instrument I: Text Only:* The same Text Only instrument was used to evaluate the text portion of each story at Time 1 (September), Time 2 (end of January), and Time 3 (end of May). The instrument consisted of 22 items pertaining to the quality of writing including sense of setting, beginning, middle, end, plot development, use of descriptive language, voice, and overall quality. (See Appendix for actual scoring instrument.) The qualities were rated on a scale from 1 – 6. Number 1 was used to indicate that the quality was not present in the writing and number 6 was used to indicate that the quality was developed to an extraordinary extent for the specific grade level. This scale had been refined from the 1 – 5 scale used in the previous study due to the existence of so many pieces of writing that deserved more than a 5 (fully developed). The following rating system was used for both studies:

- 1 = none
- 2 = minimal, traces of trait
- 3 = shows trait but in abbreviated form
- 4 = displays trait but not fully developed
- 5 = fully developed
- 6 = extraordinary

*Instrument II: Picture/Word Study:* A second instrument was used to assess the use and quality of visual elements to convey students' ideas. This Picture/Word instrument addressed students' use of the language of pictures to communicate and enhance the expression of an idea. The same instrument was used for both grade levels for all three sets of samples (Time 1, Time 2, and Time 3). The instrument consisted of 24 items pertaining to the use of color, texture, shape, detail, composition, sequence, and overall quality of the artwork in expressing the students' ideas. The qualities were rated on a scale from 1 – 6 as described above.

### **Data Collection**

Completed art and writing samples were collected from students in the treatment and comparison groups at three times over the year: September, end of January, and end of May. Baseline writing samples from both groups consisted of one or more pictures and an accompanying story. The January stories collected

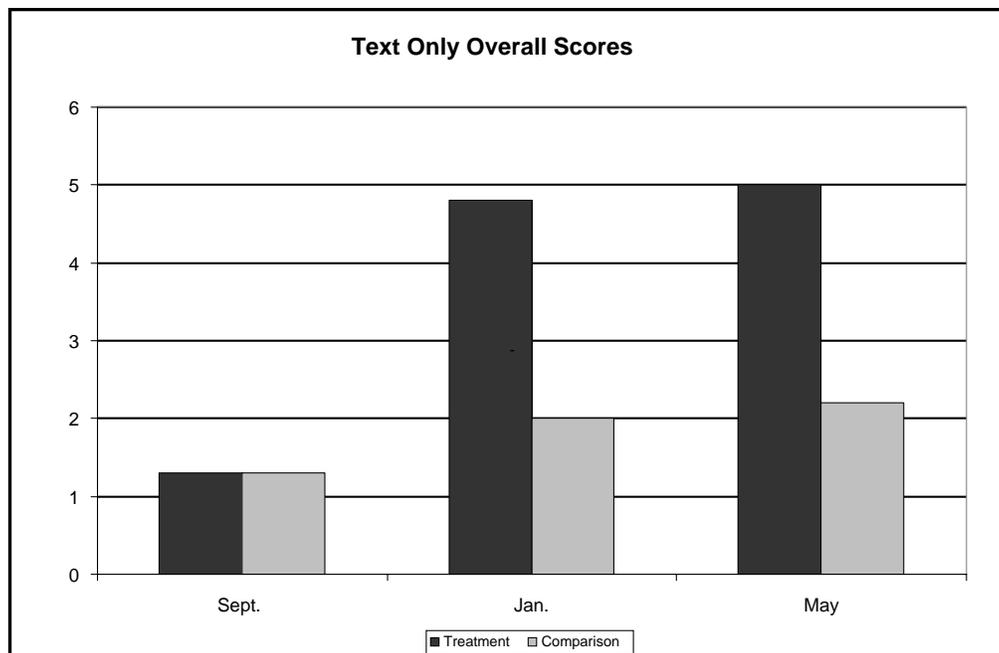
from the treatment group were the result of students participating in Picturing Writing. The May stories collected from the treatment group were the result of students participating in Image-Making. January and May samples from the comparison group were stories which were the result of whatever language arts program was currently being used in the classroom.

To rate the Text Only portion of each sample, a blind study was conducted in which all writing samples were extracted from their original form and typed in a uniform fashion without information regarding collection date, teacher, student name, or whether the piece was from the treatment or comparison group. The Picture/Word Study was, by its very nature, not a blind study because the overt appearance of the artwork often indicated which group the piece belonged to. These pieces were not scored on their aesthetic quality but rather on the student's ability to use key visual elements to communicate important information about the story.

### Research Findings

The following bar graphs and accompanying text summarizes research findings for both the Text Only Study (analyzing the text alone) and the Picture/Word Study in which student work was analyzed for how students use the language of pictures in combination with text to communicate their ideas.

#### Text Only Study

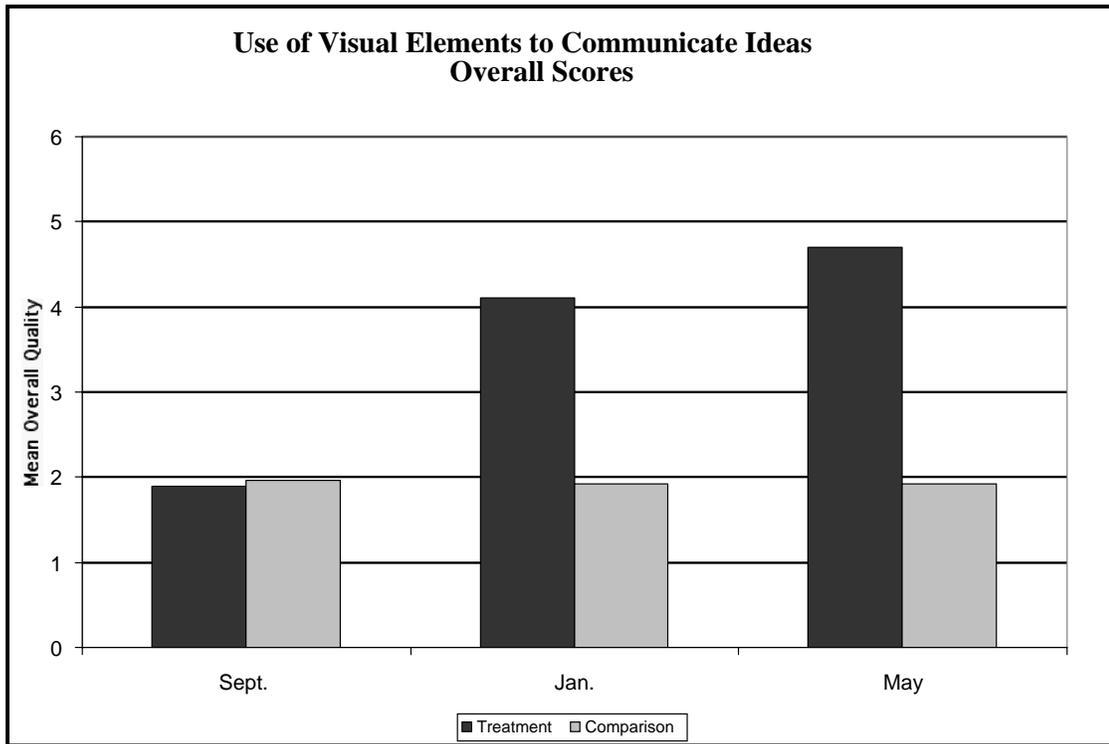


For the Text Only Study, both the treatment group and the comparison group demonstrated the same minimal overall writing ability (1.3) in September.

By January, following Picturing Writing, the average score for the overall quality of student writing for the treatment group climbs to 4.8 (almost fully developed) while the average score for overall quality of student writing for the comparison group increases to 2.0 (still minimal).

By the end of May, following Image-Making, the average score for the overall quality of student writing in the treatment group continues to increase to 5.0 (fully developed). The average score for the overall quality of student writing in the comparison group increases to 2.2 (slightly above minimal).

### Visual Element Study



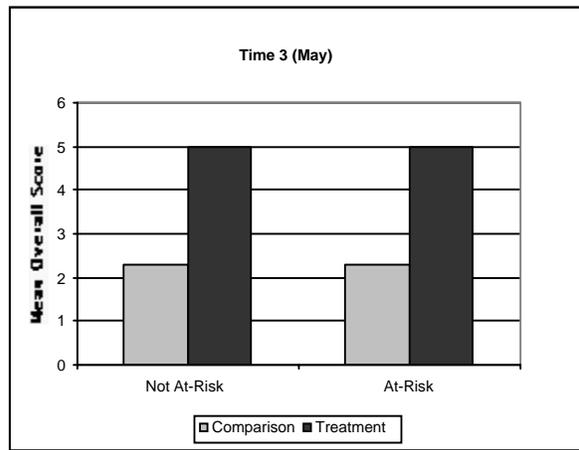
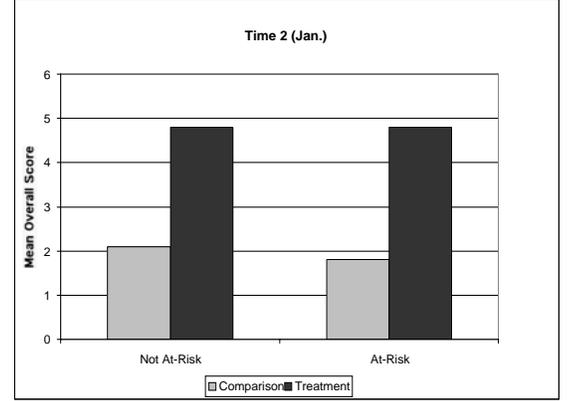
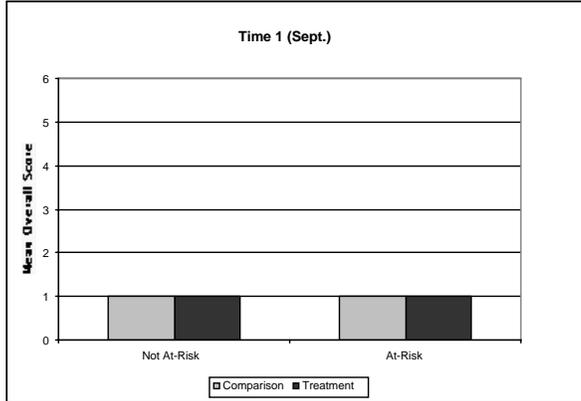
In September, the comparison group begins the year with slightly more skill in using pictures as a language (1.97 for the comparison group as compared to 1.90 for the treatment group). Both groups demonstrate less than minimal abilities.

By January, following Picturing Writing, the treatment group's overall use and quality of visual information jumps to 4.1 (displays trait but not fully developed) while the scores of the comparison group remain minimal at 1.92.

By the end of May, following Image-Making, student's skills in the treatment group increases to 4.7 (almost fully developed) while the skills of students in the comparison group remain a static 1.92 (minimal).

### Students At-Risk vs. Students Not At-Risk\*

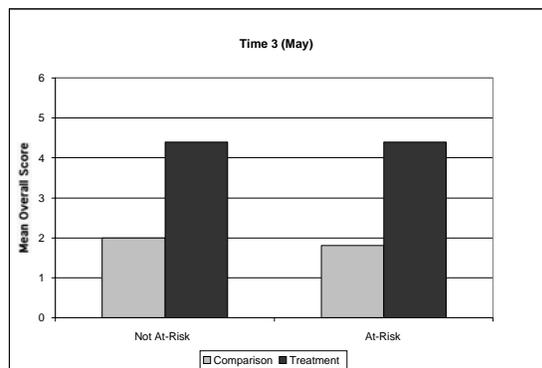
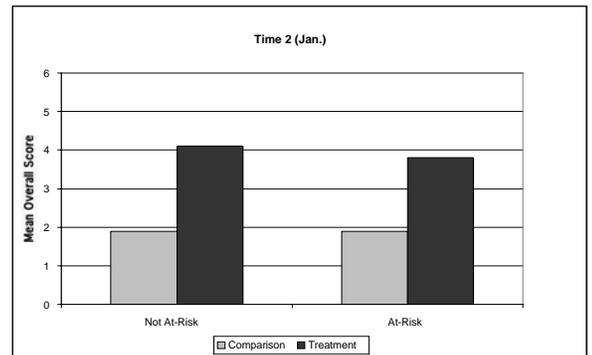
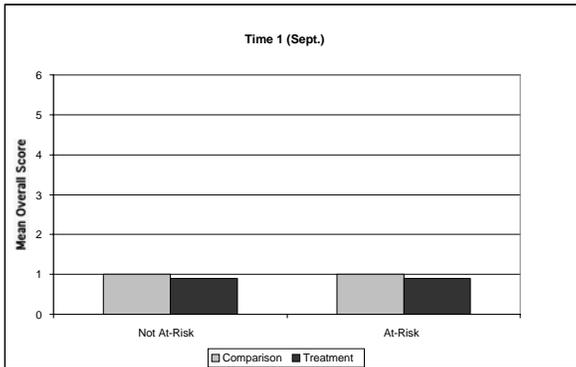
Text Only



In September, at-risk students begin the year with marginally low scores in overall quality of student writing. By January their writing skills are more than double those of the at-risk students in the comparison group yet still marginally lag behind those students in the treatment group who are not considered to be at-risk. By the end of May, at-risk students in the treatment group achieve scores equal to those students in the treatment group who are not seen as being at-risk and have excelled far beyond the writing skills achieved by all student in the comparison group.

\*At-Risk is defined by any student receiving special services.

**Students At-Risk vs. Students Not At-Risk  
Use of Visual Elements to Communicate Ideas**



In the Visual Element Study, at-risk students in the treatment group begin the year with similar levels of skills to students who are not considered to be at-risk. By January, at-risk students in the treatment group begin to build a strong foundation of skill in the use and quality of visual information as compared to all students in the comparison group. They still lag marginally behind students who are not at-risk. By the end of May, at-risk students in the treatment group have achieved scores marginally higher than students in the treatment group who are not considered to be at-risk. At-risk students in the treatment group have also excelled far beyond students in the comparison group.

## References

Anderson, R.C., Hiebert, E.H., Scott, J.A., and Wildkinson, I.A.G. (1985). *Becoming A Nation of Readers*. Washington, DC: The National Institute of Education.

Graves, D., (1983). *Writing: Teachers & Children at Work*. Portsmouth, NH: Heinemann Educational Books.

McPartland, J.M. and Slavin, R.E. (1990). *Policy Perspectives: Increasing Achievement of At-Risk Students at Each Grade Level*. Washington, DC: Office of Educational Research and Improvement, US Department of Education.

