

Program Evaluation of the *Writing to Win* Management System

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Research base for program effectiveness

Process writing in high schools (9-12)

Process writing in middle schools (6-8)

Process writing in elementary schools (K-5)

Sentence Building activities

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Introduction

In 2003, an analysis was made of the effects of a writing initiative that is widely used in the State of Georgia, the *Writing to Win Management System*. The system is a product of many years of development of classroom action research. Essentially, the system consists of a resource guide for teachers, created by teachers under the guidance of Dr. Warren E. Combs, himself formerly a professor of education at The University of Georgia at Athens. The following pages describe the statistical analysis of three schools typical of schools in Georgia that have implemented the *Writing to Win Management System*. All data analyzed were made available in reports of the Georgia Department of Education through its office of Test Assessment and Reporting Service (TSARS). All data were generated by tests of writing administered independent of *Writing to Win*.

It is interesting to note that earlier, independently reported results have contributed to the success of Dr. Combs and his consulting service incorporated as Erincort Consulting, Inc., of Athens, Georgia. In essence, his reputation throughout the State has spread by word of mouth and rising test scores on Georgia's 5th, 8th, and 11th grade writing tests in districts he serves. In a 1986 State report of writing test scores in 19 demographic groupings (district size and percent of students on free and reduced lunch), districts using the first edition of *Writing to Win* materials ranked at the top of the schools in their demographic group. No statistical analysis of program effectiveness was conducted, although the positive effect of *Writing to Win* training and materials was noticeable. No statewide analysis of student performance on the State writing tests were performed, yet the performance of Georgia students on the national writing test (National Assessment of Educational Progress) every four years indicates a positive trend in writing scores of Georgia students. In 1978, the average scaled scores of participating students in Georgia were below the national average on the NAEP test for 4th, 8th, and 12th-grades. By contrast, on the 1998 NAEP test, the average scaled scores of Georgia students performed at or around the national average with only eighteen states scoring higher. The composite effect of writing programs in Georgia is propelling the writing scores of students forward.

What follows, then, is a statistical analysis of the program effectiveness of a writing system that has wide acceptance throughout the State of Georgia. To ascertain the effect of the *Writing to Win* Management System, a high school, middle school, and elementary were randomly selected from the schools that had adopted the system with 1995. The procedures and results of that analysis appear in the following section. A conclusion wraps up this report.

Program Evaluation

Scores of students were collected from three schools on the Georgia state writing assessment in years before, during, and after the initiation of *Writing to Win* training. To determine if the visible difference in test scores before and after *Writing to Win* training was real, two statistical assessments of difference in proportions were employed. The statistical analyses of these results follow for

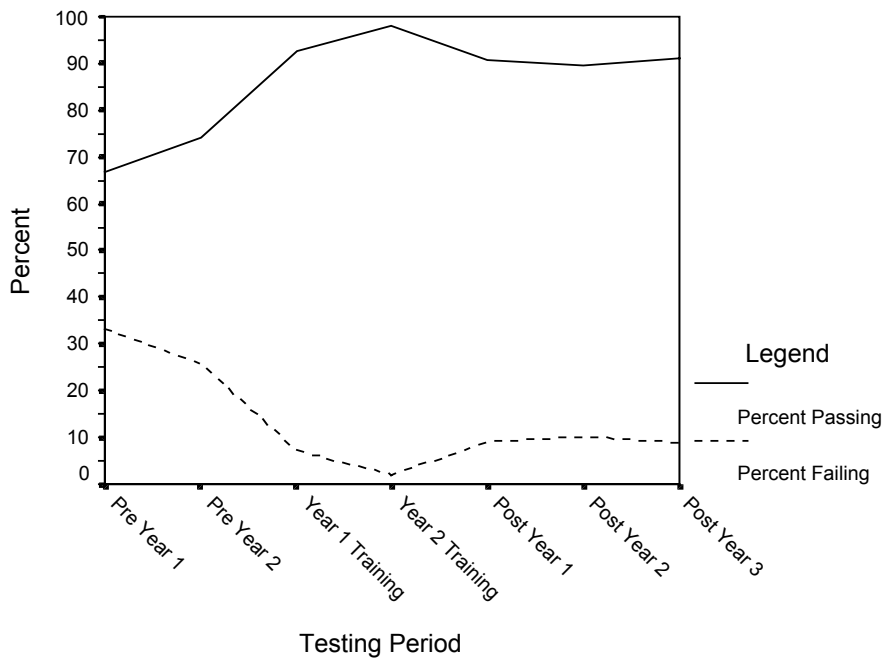
- A high school—Seminole County High School, Donalsonville, Georgia
- A middle school—West Hall Middle School of Hall County Schools, Oakwood, Georgia

- An elementary school—Carver Elementary School of Terrell County Schools, Dawson, Georgia.

Process Writing in High School (Grades 9-12)

The high school, Seminole County High School, is a medium small high school in southwest Georgia. It is a typical rural Georgia high school with one third of its students African-American and a poverty rate in excess of 80%, a characteristic common throughout a majority of Georgia school districts. The analysis of writing scores of high school juniors on the High School Graduation Test in writing spans seven school years. Years 1 & 2 (Pre Year 1 and Pre Year 2) precede the training of teachers across the curriculum in the *Writing to Win Management System*. Graph 1 indicates no difference between these two years’ performance with two different student populations (67% and 72% pass rate). Lack of difference implies no statistical change in student performance prior to *Writing to Win* training.

Graph 1. Percent Total of 11th Graders Passing the Georgia High School Writing Test, Seminole County High School, Georgia



According to Graph 1, Year 1 scores after the first year of training yielded a pass rate of 94%, which is significantly different from both Pre Year 1 and Pre Year 2 scores, indicating that the treatment prompted a significant increase in the percent of 11th-graders passing the test. Both the z-values (-4.827 and -4.367) and p-values (.000 and .000) in Table 1 show that the difference is judged as being “real.” There is no significant difference between Year 1 training and the subsequent years: Year 2 training (98%), Post Year 1 (89%), Post Year 2 (91%), and Post Year 3 (90%). Indeed, the significant improvement was sustained for four additional years. This finding is

particularly intriguing because after Year 2 Training there was no further intervention from *Writing to Win* consultants to account for the sustaining of the significant gains. Teachers sustained the positive effect of the Writing to Win training well after the completion of the formal training. The effects of the *Writing to Win* training made a difference that is judged to be “real,” and that difference is sustained for at least three years after the training period.

Table 1. Comparison of Percent Total of 11th Graders Passing the Georgia High School Writing Test, Seminole County High School, Georgia

<u>Comparison</u>	<u>z</u>	<u>P**</u>
Pre Year 1 vs. Pre Year 2	-1.213	.225
Year 1 Training vs. Year 2 Training	-1.631	.103
Post Year 1 vs. Post Year 2	.253	.800
Post Year 1 vs. Post Year 3	-.052	.959
Post Year 2 vs. Post Year 3	-.297	.766
*Pre Year 1 vs. Year 1 Training	-4.827	.000
*Pre Year 1 vs. Post Year 1	-4.367	.000
*Pre Year 2 vs. Year 2 Training	-5.365	.000
*Pre Year 2 vs. Post Year 2	-2.881	.004
Year 1 Training vs. Post Year 1	.445	.656
*Year 2 Training vs. Post Year 2	2.208	.027

*Difference judged to be *real*.

** A p-value is a tail-area probability value for the statistical test of a difference of proportions of students across two years who are on target or exceed the target on the MGWA.

Process Writing in Middle School (Grades 6-8)

The middle school, West Hall Middle School, is a medium size middle school in northeast Georgia. Students are of a typical rural and suburban mix with one third of its students being Hispanic. Just fewer than 50% of the students are on free and reduced lunch, somewhat typical for the State. The analysis of the writing scores of 8th-grade students on the Georgia Middle Grades Writing Assessment (MGWA) spans four school years. Only one year prior to the *Writing to Win* training could be used in the analysis because that year was the first year of the MGWA. Year 1 (Training Year in Graph 2) can be considered a pretreatment score because training occurred after the administration of the test in that year. The proportion of students *On Target* or *Exceeding the Target* differs from the Training Year (.82) in each of the following three years (.90, .93, and .92 respectively). There are no significant differences among the proportion of students on and exceeding the target in the three years following the training.

In short, the training that the teachers received in the *Writing to Win* Management System affected a real difference in the writing scores of students that has been sustained for at least three years running.

Graph 2. Proportion of 8th Graders *On Target* and *Exceeding the Target* on Scores on the Middle School Writing Assessment (MGWA), West Hall Middle School, Georgia.

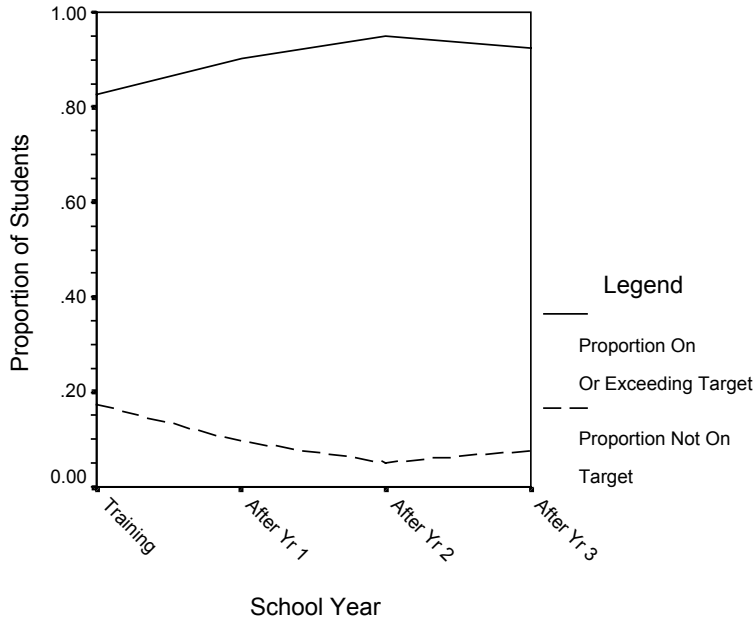


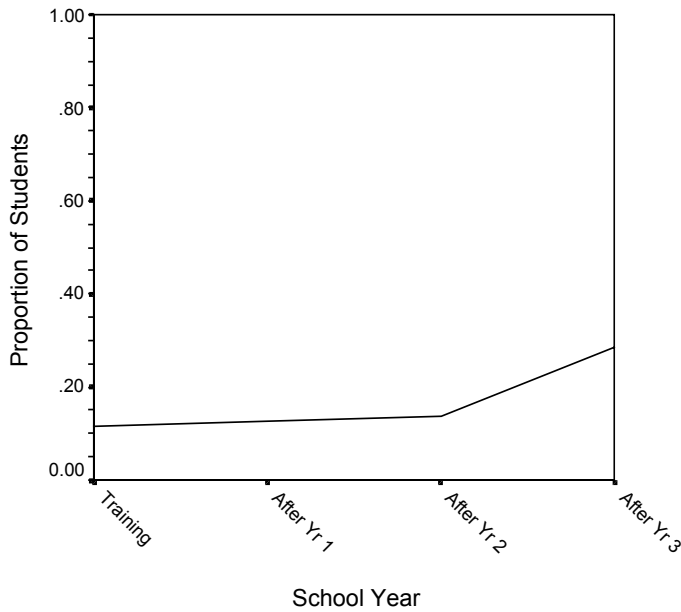
Table 2. Comparison of Proportion of 8th Graders with *On Target* and *Exceeding the Target* Scores on the Middle Grades Writing Assessment (MGWA), West Hall County Middle School, Georgia

<u>Comparison</u>	<u>z</u>	<u>P</u>
*Train-the-Teachers Year vs. After Training Year 1	-2.502	.012
*Train-the-Teachers Year vs. After Training Year 2	-4.334	.000
*Train-the-Teachers Year vs. After Training Year 3	-3.123	.002
After Training Year 1 vs. After Training Year 2	-1.900	.057
After Training Year 1 vs. After Training Year 3	.719	.472
After Training Year 2 vs. After Training Year 3	1.080	.281

*Difference judged to be “real.”

Graph 3 and Table 3 present interesting information about the students whose scores were *On Target* or *Exceeding the Target*. Although that combined group of the total group of students did not change as a whole during the three after-training years, the proportion of students *Exceeding the Target* grew significantly in After-training Year 3. The significant increase can be attributed to the addition of the *Writing to Win* inductive grammar component titled *Sentence Building*. Fifteen weeks prior to the 2003 MGWA, all 8th graders spent 40-minutes/week combining sentences using the traditional sentence-combining strategy development by John Mellon of Harvard University (1968). Their practice in sentence combining met the minimums required for significant growth in sentence structure (syntactic maturity) in sentence-combining research (Phillips 1996): ten weeks of intensive exposure, oral and written practice, and signaled exercises with correct answers.

Graph 3. Proportion of 8th Graders with Scores *Exceeding the Target* on the Middle School Writing Assessment (MGWA), West Hall Middle School, Georgia



Graph 3 shows that in the training year and after-training years 1, 2, and 3, the proportion of students *Exceeding the Target* remained about the same (.11, .11, and .12). In After-training Year 3, however, that proportion was .29, a remarkable difference that can be attributed to the sentence-combining practice. The positive and immediate effect of sentence-combining practice on the independent writing of students of all ages is well documented (Phillips, 1996), and that effect established has the dimension of language growth—syntactic maturity *ala* studies from Mellon (1965) to the present—and well as judgments of writing quality studies from Combs (1975) to the present. What the current study suggests is the power of sentence-combining practice to boost the writing scores of students at the upper end of the scoring continuum, at the *Exceeds the Target*

category of writing. This design needs to be replicated before such a conclusion can be drawn, but this study raises an interesting possibility.

Table 3. Comparisons of Proportions of 8th Graders with *Exceeds Target* Scores on the Middle Grades Writing Assessment (MGWA), West Hall Middle School, Georgia

<u>Comparison</u>	<u>z</u>	<u>P</u>
Train-the-Teachers Year vs. After Training Year 1	-.356	.722
Train-the-Teachers Year vs. After Training Year 2	-.781	.435
*Train-the-Teachers Year vs. After Training Year 3	-4.467	.000
After Training Year 1 vs. After Training Year 2	-.421	.674
*After Training Year 1 vs. After Training Year 3	-4.154	.000
*After Training Year 2 vs. After Training Year 3	-3.808	.000

*Difference judged to be “real.”

Process Writing in Elementary School (Grades K-5)

The elementary school, Carver Elementary School, is a medium size elementary school in rural southwest Georgia. Its demographics reflect some of the most impoverished areas of the State. With 95% of its students being African-American, and a poverty rate in excess of 90%, it presented challenges to program implementation. Low student expectation and performance had dogged the efforts to initiate programs for change for many years. With strong building leadership, the principles of *Writing to Win* were implemented as in with the following results.

Grade 5 students at Carver Elementary School were annually given the Georgia State Writing. In scoring the test responses, writings of each student were rated into one of six categories or Developmental Stages.*

* Developmental Stage is defined by the Georgia Department of Education document, *Assessment and Instruction Guide for Grade 5 Writing Assessment*, 1994 (reprinted 2001). Grade 5 students writing “on grade level” should be writing at or above Stage 4. Stage 1 is the least mature stage, Stage 6 the most mature.

<u>Stage</u>	
6	Extending Writer
5	Engaging Writer
4	Experimenting Writer
3	Focusing Writer
2	Developing Writer
1	Emerging Writer

The analysis of writing scores of 5th graders on the Georgia Grade 5 Writing Assessment spans four school years. Years 1 & 2 (1998, 1999) served as pretreatment scores. As Table 5 shows, the average scores of 5th graders in those two years were not significantly different. The scores of either of these two years, however, were significantly different from post treatment scores (2000-2001). 1998-1999 preceded the training of teachers across the curriculum in the *Writing to Win* Management System.

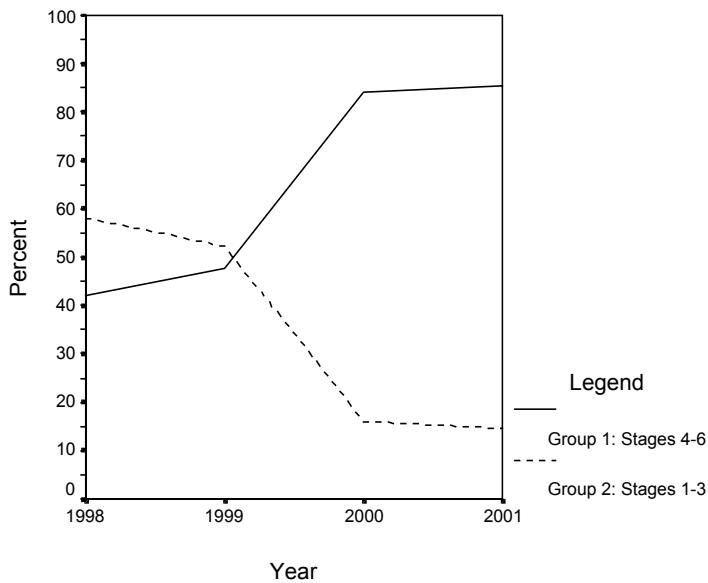
Results of the Grade 5 Writing Assessment are given in Table 4.

Table 4. Numbers of 5th Graders in Each Writing Stage, Carver Elementary School, Dawson, Georgia
Year

<u>Stage</u>	<u>1998</u>	<u>1999</u>	<u>2000</u>	<u>2001</u>
6	2	4	5	5
5	9	10	20	34
4	36	38	64	67
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3	53	42	14	17
2	12	15	3	1
1	0	0	0	0
	<hr/>	<hr/>	<hr/>	<hr/>
	112	109	106	124

Writing progress is reflected graphically in Graph 4. An example of a point on the solid line is for year 2000: $(5 + 20 + 64) / 106 = .84$. The point on the dashed line for year 2000 is given by $(14 + 3 + 0) / 106 = .16$. It is pretty clear from the graph that considerable writing progress had been achieved across the four years for 5th Graders at Carver Elementary School.

Graph 4. Percent of 5th Graders in Stages 4-6 vs. Stages 1-3, Georgia Grade 5 Writing Assessment, Carver Elementary School, Dawson, Georgia



An assessment of Grade 5 student progress in writing was made by statistically comparing the proportions of students who performed in at least Stage 4 from year to year. Six such statistical comparisons were made (e.g., proportion of students in Stages 4, 5, 6 in 1998 versus the proportion in 1999). Results of the statistical tests are summarized in Table 5. It may be noted that the first two-year (1998-99) comparison did not indicate a significant difference in proportions. Similarly comparison of the last two proportions did not indicate a significant difference. It may be concluded, however, that significant progress in writing capability is evidenced from the 1998-00 differences to the 1999-01 differences.

Table 5. Comparison of Proportion of 5th Graders in Stages 4-6 vs. Stages 1-3, Georgia Grade 5 Writing Assessment, Carver Elementary School, Dawson, Georgia

<u>Comparison</u>	<u>z</u>	<u>P</u> *
98 v. 99	-.935	.175
98 v. 00	-7.636	.000
98 v. 01	-7.373	.000
99 v. 00	-5.855	.000
99 v. 01	-6.359	.000
00 v. 01	-.250	.401

*A p-value is a tail-area probability value for the statistical test of a difference of proportions of students across two years who are placed in Stages 4, 5, 6.

Although the last two years differences were not statistically significant, it may be noted that the proportions of students in 2000, 2001, and 2002 who were in Stages 4, 5, 6 were quite high (.840 and .855 respectively). Thus, there was not much “room for significant improvement” in the last two years.

Conclusions

In the analysis of data generated by assessments of writing independent of the *Writing to Win* Management System, a trend emerges. Prior to systematic training in the teaching of writing with *Writing to Win*, scores of students’ writing appear not to change significantly from year to year even though the student populations in this comparisons are independent of one other (e.g., they are different students). The significant impact of the *Writing to Win* training is immediate as shown in the assessment of differences in the first year following training in a range of schools, small and medium-sized, rural and suburban. The significant difference in scores appears to be maintained by the trained faculties even after the *Writing to Win* consultant has completed the training, in the three schools above, for as many as three years. Data reported after the completion of these assessments indicate that the gains remain even beyond three years.

It is clear from these statistical assessments that the effect of the implementation of the *Writing to Win* materials and training is positive and significant. It is also clear that in the training, the system for teaching writing is well-enough defined for administrators and teachers that they can continue to help future students achieve significantly higher scores of writing assessment without the ongoing intervention of a *Writing to Win* consultant.

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