

## A Research Foundation for Teaching Writing: Improving Writing Performance

By Ronald C. Martella

# "Triting today is not a frill for the few, but an essential skill for the many."

- The National Commission on Writing in America's Schools and Colleges

Writing is critical to success. Every day, for everything from taking class notes to creating reports and answering essay questions, students need good writing skills.

Forty-nine of the 50 states require a measure of writing competency for high school students to graduate or include writing assessments as part of statewide testing. The SATs added a writing component in 2005 that accounts for one-third of a student's total score.

Beyond school, the workplace demands ever-increasing skills in writing. Many jobs require writing reports, taking notes related to job activities, and communicating through e-mail with colleagues and other parties. More than 90 percent of midcareer professionals recently cited the "need to write effectively" as a skill of "great importance" in their day-to-day work.

### Writing Underpins Thinking and Learning

Writing also is important because of its relationship to reading. Although the precise nature of the relationship is not fully understood, what is clear is that students who have difficulty with written expression often have difficulty with reading.

Writing requires students to organize and clarify their thoughts and has an integrating effect on long-term learning. Writing prompts students to elaborate and manipulate. The more they manipulate content, the more likely they are to understand and remember. In short, if students are to learn, they must write.

### **Society Depends on Written Communication**

Based on their research, Fredrick and Steventon surmised the importance of writing begins at an early age and continues for a lifetime. "As a literate society, we rely on writing as an effective means of communication in all walks of life. Because we rely on writing as a major means of communication in our society, writing instruction is critical."

Instruction in writing skills is too important to leave to chance. We must teach young children basic writing skills early and well, while they are in elementary school.

### **Good Writing Must Be Taught**

Of all the language skills we teach students, writing is one of the most complex.

Good writers create compositions that incorporate organizational patterns while applying the technical skills of written English. The writer must:

- · Say things correctly,
- Say them well, and
- Make sure what they say makes sense.

Good writing means writers must take on two roles simultaneously. In the author role, writers must focus on the ideas and text structure. In the secretarial role, they must focus on accuracy and form—spelling, punctuation, and grammar.



Students become good writers only when they can independently function as both author and secretary and apply the skills of both roles with little conscious attention. Research suggests that parallel instruction in both roles is most effective. Research also indicates that learning to write cannot be picked up from a few minutes here and a few minutes there. To become better writers, students require formalized instruction and practice in writing throughout much of the school day.

### Effective Programs Achieve Results Efficiently

In today's schools, we find ourselves with too little instructional time. To achieve optimum results while teaching writing efficiently, we must use instructional strategies that demonstrate effectiveness in the classroom.

One such program is Language for Writing. Language for Writing was developed through an extensive field-test process unique to SRA's Direct Instruction programs. Teachers used preliminary versions of the Language for Writing program in their classrooms. Precise information was collected to show where changes made to the program were successful and where they failed. When improvements were needed, the authors made changes and the modified program was tested in classrooms again.

Through this interactive, collaborative process, the authors and field-test teachers ensured that the published program clearly communicates the instructional sequences and details needed to achieve positive results in student writing.

### **Test Sites Reflect Diversity**

A total of ten classrooms participated in two field test evaluations. More than 200 students were involved at the beginning of the project, with posttest scores obtained for 126 students.

As the charts on the following page highlight, students came from a diverse cross-section for Evaluation I and Evaluation II.

Six classrooms served as Evaluation I sites; four classrooms participated in Evaluation II.

Teachers in five of the Evaluation I sites (Classrooms 1 through 5) taught up to 70 lessons of the program from February 2003 to May 2003. Students in Classroom 6 in Evaluation I received all 140 lessons from January 2003 to May 2004. Teachers in three of the Evaluation II sites (Classrooms 7, 8, and 10) received at least 70 lessons, while Classroom 9 received all 140 lessons from September 2003 to May 2004.

### **Assessments Measure Results**

Four categories of assessments were conducted throughout the program evaluation:

- A standardized assessment (Test of Written Language-3) was provided to measure growth in various written language skills.
- Specific student performance throughout the program was determined by documenting the number of errors per lesson and mastery test performance.
- The length of each lesson was documented across program evaluation sites.
- Two social validity measures evaluated lesson ratings and a survey measured overall teacher satisfaction with the program.

Finally, for Classroom 6 only, a curriculum-based measure of written language was made.

The Test of Written Language-3 (TOWL-3), a comprehensive assessment of written language, provided a norm-referenced measure of student writing competence. The test contains eight subtests that measure writing skills through both essay-analysis (spontaneous) formats and traditional test (contrived) formats:

### Spontaneous Formats

- Contextual Conventions: capitalization, punctuation, and spelling
- Contextual Language: vocabulary, syntax, and grammar
- Story Construction: plot, character development, and general composition



Evaluation I				
About the Classrooms	**About the Students			
Classroom 1:	African American: NA			
General education	Caucasian: 75%			
<b>Location:</b> Pacific Northwest	Hispanic: 20%			
Grade: 2	Asian: 5%			
Number of Students: 24	Other: NA			
Reduced-Price Lunch: 30%				
Classroom 2:	African American: NA			
General education	Caucasian: 30%			
<b>Location:</b> Southwest	Hispanic: 70%			
Grade: 2	<b>Asian:</b> NA			
Number of Students: 17	Other: NA			
Reduced-Price Lunch: NA				
Classroom 3:	African American: 95%			
General education	Caucasian: NA			
<b>Location:</b> Southwest	Hispanic: NA			
Grade: 2	Asian: NA			
Number of Students: 17	Other: 5%			
Reduced-Price Lunch: 100%				
*Classroom 4:	African American: 30%			
General education	Caucasian: 10%			
<b>Location:</b> Southwest	Hispanic: 30-40%			
Grade: 2	<b>Asian:</b> 20-30%			
Number of Students: 18	Other: NA			
Reduced-Price Lunch: 66%				
Classroom 5:	African American: 100%			
General education	Caucasian: NA			
Location: Midwest	Hispanic: NA			
Grade: 2	<b>Asian:</b> NA			
Number of Students: 25	Other: NA			
Reduced-Price Lunch: 99%				

Evaluatio	on II		
About the Classrooms	**About the Students		
Classroom 7:	African American: NA		
Resource room	Caucasian: 95%		
(special education)	Hispanic: NA		
<b>Location:</b> Pacific Northwest	Asian: NA		
Grade: 3-5	<b>Other:</b> 5%		
Number of Students: 10			
Reduced-Price Lunch: 19%			
Classroom 8:	<b>African American:</b> 95%		
General education	Caucasian: NA		
Location: Midwest	Hispanic: NA		
Grade: 3	Asian: NA		
Number of Students: 41	<b>Other:</b> 5%		
Reduced-Price Lunch: 90%			
Classroom 9:	African American: NA		
General education	Caucasian: 13%		
Location: West	Hispanic: 73%		
Grade: 3	Asian: NA		
Number of Students: 16	<b>Other:</b> 14%		
Reduced-Price Lunch: 100%			
*Classroom 10:	African American:		
General education	Caucasian: 30%		
<b>Location:</b> Southwest	Hispanic: 70%		
Grade: 2	Asian: NA		
Number of Students: 17	Other: NA		
Reduced-Price Lunch: 100%			

 $<sup>\</sup>hbox{$^*$Classroom observers reported data regarding student ethnicity.}$ 



<sup>\*</sup> Statistics for Classrooms 4 and 10 were not included in the analysis because of an absence of posttest scores.

### **Contrived Formats**

- Vocabulary: word usage
- Spelling: ability to form letters into words
- Style: punctuation and capitalization
- Logical Sentences: ability to write conceptually sound sentences
- Sentence Combining: syntax

The TOWL-3 also provides composite scores for Spontaneous Writing, Contrived Writing, and Overall Writing.

### Students Significantly Improve Writing Performance

Overall, students in the four general education classrooms in Evaluation I that provided pretest and posttest results made impressive improvements in writing skills, especially in their spontaneous writing skills.

An effect size of .25 is considered educationally significant. In this study, there were educationally significant improvements across all classrooms. The improvements were also statistically significant beyond the .001 level. Improvements for Classrooms 1, 2, 3, and 5 ranged from an effect-size change of .45 (Contrived Writing) to 1.29 (Spontaneous Writing) when compared to the TOWL-3 normative sample. The Overall Writing composite showed an effect-size change of .82 when compared to the normative sample.

The results of the second-year evaluation replicated and extended those of the first year. The improvement in performance of Classrooms 8 and 9 when compared to the normative group was .43 for Contrived Writing, 1.67 for Spontaneous Writing, and .97 for Overall Writing.

### **Special Education Learners Excel**

Classroom 6, a special education class, was evaluated separately. As in the general education classes, student scores for Spontaneous Writing improved dramatically, with an effect size of 1.65.

In Contrived Writing, students showed educationally significant improvements, with an effect-size increase from pretest to posttest of .28. The Overall Writing composite effect size improved by .84.

Classroom 7, a special education class including students with disabilities, also showed large and educationally significant changes in Evaluation II. Students improved from pretest to posttest on the Contrived Writing composite with the point gain translating to an effect size of .41. They showed improvements for the Spontaneous Writing with an effect size of 1.36 and the Overall Writing composite of 16.3 points, which translates to an effect size of 1.09.

### **Students Retain Information Over Summer Break**

On the curriculum-based assessment completed after the summer break, seven of the ten special education students in Classroom 6 who took the pretest demonstrated improved performance for Written Expression. Six of the ten students demonstrated improved performance for Quality Evaluation, and seven of the ten students demonstrated improved performance on Mechanics. Overall, except for one student, there was improved performance of six more words for Written Expression, a 3.5 percent increase in Quality Evaluation, and a 3.3 percent improvement in Mechanics.

Evaluation I: Pretest and posttest means and effect-size change for composite scores for Classrooms 1, 2, 3, and 5.					
Composites	Pretest Mean	Posttest Mean	Difference	Effect Size	
Contrived Writing	90.31	96.96	6.65	.45	
Spontaneous Writing	82.79	102.11	19.32	1.29	
Overall Writing	87.10	99.41	12.31	.82	



### **English Language Learners Show Promise**

As the tables below show, English Language Learners made educationally significant improvements in all three measures of the writing areas for Evaluations I and II. While more research with a larger sample group needs to be completed, these results are encouraging.

### **Authors Incorporate Teacher Feedback**

Evaluations showed teachers were generally pleased with the preliminary versions of *Language for Writing*. They liked the sequencing of the skills and saw students improve. However, in Evaluation I, teachers clearly indicated that the lessons were taking too long. Authors revised lesson lengths based on this input. In Evaluation II, teachers saw *Language for Writing* as an excellent program.

### **Research Points to Language for Writing**

The primary purpose of the evaluation of Language for Writing prior to publication was to provide feedback to the program authors and refine the program on the basis of data gathered during the field test of the program. Results from Evaluations I and II found educationally significant improvements in every area of writing across all classrooms that provided pretest and posttest results. Clearly, this is a first step in validating the Language for Writing program. Although there were constraints in the experimental design, the importance of these findings cannot be understated. The field-test research demonstrates that the direct and explicit teaching incorporated in Language for Writing can improve the writing skills of all students, regardless of ability level.

ELL student performance Evaluations I and II.						
	Pretest		Posttest			
Evaluation I	Contrived	Spontaneous	0verall	Contrived	Spontaneous	0verall
Students	Writing	Writing	Writing	Writing	Writing	Writing
1	68	72	69	78	85	80
2	97	79	90	105	89	99
3	73	70	70	77	81	77
Mean	79.3	73.7	76.3	86.7	85.0	85.3

		Pretest			Posttest	
Evaluation II	Contrived	Spontaneous	0verall	Contrived	Spontaneous	0verall
Students	Writing	Writing	Writing	Writing	Writing	Writing
1	78	83	79	78	91	83
2	68	74	69	86	119	99
Mean	73.0	78.5	74.0	82.0	105.0	91.0



### Research-supported features of Language for Writing

Language for Writing provides classroom-proven teaching strategies to teach students to:

- Write clear, organized narratives
- Make precise comparisons
- Summarize and retell
- Apply correct punctuation, grammar, and usage

The instructional design incorporated in *Language for Writing* is supported by a strong research basis. The following chart demonstrates how research findings support specific features of the program.

Research Findings	As Implemented in Language for Writing
Writing performance is impacted by oral language skills. (Englert, Raphael, Anderson, Anthony, and Stevens, 1991)	Direct vocabulary instruction occurs across lessons in strands designed to develop the vocabulary and logical thinking necessary for writing and reading comprehension. Indirect vocabulary instruction occurs throughout each lesson as students discuss words used to describe actions, events, and objects.
Parallel instruction in both roles (author and secretary) is more effective than the use of either approach independently.  (Graham, 1990, 1992, 1999; Isaacson, 1989; Kame'enui et al. 2002)	Conventions of language are introduced in isolation with teacher-directed instruction. These skills are quickly integrated with writing tasks that require students to take on both roles simultaneously.
Writing performance improves when students are taught discrete steps, with each step taught separately, and integrated into the whole process after students learn necessary skills.  (Graham & Harris, 1988; Hull, 1987; Isaacson, 1990)	Writing is broken into logical steps that gradually transfer to longer, multiparagraph narratives.
Students significantly improve the quality of their writing when provided explicit instruction of writing strategies. (Gersten & Baker, 2001; Graham & Harris, 1988; Hull, 1987; Isaacson, 1990)	Detailed directions provide students with clear procedures and steps to follow that lead to writing for a variety of purposes. This temporary support and assistance is gradually diminished, providing an easy transition to independent application.
Distributed and cumulative review of skills helps students generalize and maintain their knowledge.  (Carnine, Dixon, & Kame'enui, 1994)	Exercises on a particular skill are provided over a series of lessons. During each lesson, students practice several skills. These skills are then applied to a variety of writing tasks which ensure that students use the skills throughout the remainder of the program.
Students need to engage in writing activities for at least thirty minutes a day, four days per week to benefit from writing instruction.  (Kame'enui, Carnine, Dixon, Simmons, & Coyne, 2002; Graves, 1985)	Active participation and student engagement are key in <i>Language for Writing</i> . Each lesson begins with approximately fifteen minutes of teacher-directed instruction. In addition, students are engaged in thirty minutes of writing activities five days per week.



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