

What Research Tells Us About Writing Instruction For Students in the Middle Grades

Abstract: In this paper we briefly review the research on effective writing instruction. We then recommend ways to integrate that research with findings from research on struggling writers and research on effective teaching practices to help teachers design writing instruction that will address the needs of a more diverse student population. Finally, we discuss a model of collaboration between researchers and curriculum developers aimed at helping publishers translate research into instructional practice. We illustrate that model with an example of a writing program (*Postcards*) developed by Curriculum Associates with the assistance of researchers from the National Center to Improve the Tools of Educators (NCITE).

Ask any university writing instructor, and she/he will confirm the difficulty that many of his/her students, even high performing students, have with their writing assignments. These college instructors often will comment on the apparent lack of rigor characteristic of high school writing instruction that has rendered their university students ill-prepared for the writing demands of college coursework. Ask high school teachers to comment on the

writing proficiency of their students and their response is likely to reflect a frustration for the lack of intensive writing instruction in middle school. And so on. That writing is a difficult endeavor for most of us is not in question. Though writing research has been carried out for a number of years, the literature on how best to teach writing, especially to naïve or low performing students, remains fairly limited. Moreover, the translation of research findings into effective instructional practice through the use of well-designed, research-based curricula is even more limited (Dixon, Isaacson, & Stein, 1997; Stein, Dixon, & Isaacson, 1994). The purpose of this paper is three-fold and includes the following:

- 1) to review what research tells us about the needs of struggling writers;
- 2) to highlight findings from writing research that have particular significance for teachers;
- 3) to illustrate one model of collaboration between researchers and curriculum developers designed to facilitate the transition from research into practice.

What Struggling Writers Lack

We will use the term *struggling* or *reluctant* writers to refer to those students who lack important knowledge and skills necessary for effective written communication, those students who fre-

quently experience failure when required to express themselves in writing. These students may have been taught using less effective curricula; they may have lacked opportunities for practice; or they may have learning problems that inhibit their learning to write well. It is important to note here that, regardless of the hypothesized reason for failure, this paper is written with the assumption that all students can benefit from well-designed, well-implemented writing instruction.

According to Isaacson (1991), struggling writers may have difficulty with memory problems, poor selective attention, lack of mechanical skills, insufficient procedural strategies, and poor metacognitive skills as well as the inability to assume another's perspective. In other words, students may have difficulty in the creative aspects of writing or the *author's* role as well as with the mechanics of writing, the *secretary's* role (Isaacson, 1989; Smith, 1982). While both roles are essential in the production of clear written communication, each requires knowledge and skills unique to the role. For example, idea generation and writing fluency are skills subsumed under the author's role, while mechanics such as verb/noun agreement and spelling fall under the purview of the secretary's role.

In the author's role, reluctant writers appear to struggle with generating and organizing ideas into a particular framework or structure (Englert & Raphael, 1988; Englert, Raphael, Fear, & Anderson, 1988). The author's role requires the use of sophisticated metacognitive skills including the ability to choose appropriate strategies as well as knowing when and why to use these strategies. Spivey and King (1989) also found that poor writers show less success in synthesizing material for writing a report, another organizational skill.

Raphael and Englert (1990) summarized the difficulties that poor writers experience as follows:

The problems include students' a) inability to sustain their thinking about topics, b) poor organizational skills, c) insensitivity to audience needs (e.g., not setting contexts, no use of text signals), d) failure to provide a purpose, e) inability to perceive themselves as informants with information to share, and f) poor use of conventions of print (p. 389).

What Struggling Writers Need

Many of the controversies surrounding what and how to teach writing neglect to take into account both the author and secretary roles or tend to emphasize one role over the other. For example, some practitioners have emphasized a process approach to writing almost to the exclusion of explicit instruction in many of the necessary mechanics of writing. We feel that the process versus product debates represent false dichotomies in the field and ultimately distract educators from asking more substantive questions about writing instruction. Many of the controversies, in our opinion, can be addressed by viewing both roles of the writer along a continuum along which instructional practices can be placed. From the research literatures in both writing and effective teaching practices, we have derived four basic guidelines for improving writing instruction in the middle grades and ultimately providing writers with the instruction they need. They are: a) Emphasize Big Ideas; b) Teach Explicit Strategies; c) Use Scaffolded Instruction, and d) Provide Sufficient Review.

Emphasize big ideas. Big ideas are the important concepts that underlie a discipline and facilitate the greatest amount of learning in that discipline. In writing instruction, big ideas exist in both the composing or ideation side of writing (the author's role) as well as the more mechanical aspect of writing (the secretary's role). For example, understanding the steps in the writing process can be considered a big idea. Many stu-

dents must be taught that not only is writing a recursive, iterative process requiring more than a single draft, but they must be taught exactly what good writers do during various stages of the writing process. This instruction would incorporate teacher modeling and peer collaboration for the skills needed for each phase of the process including editing and revising.

Another big idea in the area of composing is that of text structure. A text structure is a set of characteristics that defines a text as a specific rhetorical type (e.g., explanation, compare/contrast, persuasion). The story text structure, for example, includes the problem experienced by a protagonist, several attempts to solve the problem, and a resolution. Originally taught to students in an effort to facilitate their understanding of content area textbooks (Anderson & Armbruster, 1984), researchers have designed successful writing curricula using the concepts of text structure (Englert et al., 1991).

While most educators recognize the need to teach fewer but more important ideas and concepts more thoroughly, most commercial programs or curriculum guidelines contain numerous objectives at each grade level in their scope and sequences. For example, we found that many commercial language arts programs include anywhere from 10 to 15 different text structures at a given intermediate or middle school grade level. Since the amount of instructional time allocated for any one of those text structures is quite low, the opportunity for students to master even just one of the text structures is negligible. In contrast, Englert et al. (1991) taught only two text structures in a single school year but did so thoroughly.

Teach explicit strategies. The rationale behind teaching explicit strategies is simply to make accessible to all students those strategies that experts routinely and successfully use in their writing. A strategy is a series of steps that leads most learners to successful performance

(Prawat, 1989). Not all strategies are useful or efficient. A strategy that is too narrow (e.g., spelling rules for low frequency words) may encourage rote learning while one that is too broad (e.g., “edit your work”) is unlikely to be useful to students.

Ideally, strategies are “intermediate in generality” (Prawat, 1989). That is, the strategy specifies the basic steps in the cognitive process and can be applied to a range of examples. A particularly useful feature of intermediate strategies is that they can be easily scaled up or down to meet the needs of a diverse student population. Teachers can vary the features in a strategy including the degree of explicitness, the number of steps, or the amount of teacher prompting. For example, the following is an example of a cognitive strategy designed to teach students subject/verb agreement with a compound subject:

You can usually figure out the correct verb to use when you have a compound subject by breaking the sentence into two simpler sentences. Read each sentence below and answer the questions that follow.

(Note that several examples like the following would be presented.)

1. Tony and Rosie have/has the flu.

Write the compound subject in this sentence _____.

What is the joining word? _____.

Can you write a simpler sentence using “they” in place of the compound?

___ yes ___ no

If “yes,” write the simpler sentence and choose the right word.

_____ have/has the flu.

If “no,” write the sentence with the last part of the compound subject and choose the right word. _____ have/has the flu.

More skilled students would require less teacher prompting and less guided practice in the presentation of that strategy than naïve students. Struggling writers would more likely require the teacher to demonstrate the application of the strategy with several examples, guide them as they worked several more, and provide immediate feedback before the students would be able to apply the skill independently. Note that often, struggling writers lack even the prerequisite skills necessary to implement a given strategy and so those skills must first be identified and taught. For example, prior to teaching students the above strategy on subject/verb agreement, the students would be expected to understand the concepts of compound subject and joining word. The effectiveness of explicit strategy instruction has been demonstrated in key phases of the writing process: planning (Harris & Graham, 1985), text structure (Englert et al., 1991; Graham & Harris, 1989), and revising (MacArthur, Graham, & Schwartz, 1991).

Use scaffolded instruction. Designing effective strategies to teach big ideas provides the core or the *what* in effective writing instruction. However, the two remaining recommendations both address the *how* in the teaching of writing. Scaffolded instruction refers to the support that teachers provide students as they are learning a new strategy. This teacher support may come in the form of asking leading questions, providing detailed feedback, or even using structured peer support. Simply stated, using scaffolded instruction is analogous to putting training wheels on a two-wheel bicycle when a child is just learning how to ride it. Eventually, those training wheels will become superfluous as the child gains balance and control.

Consistent with other teaching recommendations, scaffolded instruction is useful in both the composing and mechanics of writing. In composing, scaffolding may take the form of a procedural facilitator (Scardamalia & Bereiter, 1982). A procedural facilitator is a device designed to help reduce the initial memory load on students by providing written prompts. Figures 1 and 2 illustrate prewriting strategies that also serve as procedural facilitators. The written prompts on the think sheets facilitate organization of content without relying on students’ memory for the essential components of the organizational structure. Like training wheels, the use of the think sheet can be eliminated once students develop the confidence and mastery of the particular text structure.

Isaacson and Gleason (1997) include many procedural facilitators in the strategies they recommend for helping students overcome mechanical obstacles. For example, for students who have particular difficulty with spelling, the authors suggest prompting correct spelling by generating lists of important words to which students can refer during composing. Another strategy recommended by Isaacson and Gleason, derived from the work of Archer and Gleason (1989), is a self-checking strategy that prompts students when they are editing their work:

1. Check to be sure that the sentence makes SENSE.
2. Check for a CAPITAL at the beginning of the sentence.
3. Check for a PERIOD at the end of the sentence.
4. Check your SPELLING. (p. 192)

Provide adequate review. The final recommendation of providing adequate review, though seemingly simple, is frequently not evident in commercial programs. These materials rarely

Figure 1

Prewriting Think Sheet

Name of writer _____ **Date** _____

Topic: _____

Who will be my audience?

What is my goal?

What are all the things I already know about this topic?

What are some possible ways to group my ideas?



Figure 2

Organization Think Sheet

**Organization Think Sheet
Explanation**

What am I explaining? _____

What will the reader need? (If anything.) Is there any special setting for this? If

so, ... _____

What can I tell readers at the beginning to get them interested? _____

What are the steps, in order?

1. _____

2. _____

3. _____

4. _____

5. _____

6. _____

First Next Then After Second Third Finally

provide sufficient practice to allow students to achieve mastery. Many program developers claim that in order to motivate students they must include many different instructional activities throughout a grade level. Their rationale is that if students are required to practice the same task frequently they will get bored and lose motivation for learning. We are aware of no evidence to support that argument. In fact, according to Dempster (1991), opportunities to apply new knowledge can contribute to retention, fluency, and deep understanding.

Dempster (1991) outlines four types of review that are effective in increasing achievement: a) adequate, b) distributed, c) cumulative, and d) varied. Adequate and distributed review interact with one another in that the more distributed the practice, the less total amount of review is needed to be adequate for mastery. Various writing mechanics would be more appropriately taught using distributed review. For example, instead of giving students two practice exercises on punctuating possessives, teachers would be advised to distribute the same number of examples (or fewer) over several weeks. Much of the criticism leveled at the teaching of “fragmented skills” can be traced to the brief presentation and lack of distributed practice and review of those individual skills.

In contrast, cumulative review and varied review ensure that students understand when to apply strategies. Cumulative review allows students to integrate knowledge they are acquiring and requires them to discriminate among similar strategies. For example, students may confuse possessive pronouns, which do not require punctuation, with possessive nouns, which do. Two topics such as these, which are typically taught separately, should be reviewed together to give the students opportunities to practice discriminating the skills, as they would need to do under typical writing conditions. The purpose of varying review is to encourage students to generalize their new knowledge to a

broader range of examples. For example, once students learn to write an explanation, they need to be aware of different situations when the use of an explanation text structure would be most appropriate.

In short, instructional programs for teaching writing are most likely to be effective if they incorporate a few critical features: big ideas (e.g., text structures, the writing process, collaboration); explicit instruction on strategies of intermediate generality; gradually diminished scaffolding to support students as they are learning; and review that is adequate, distributed, cumulative and varied. Although there are some commercial programs that do a good job of incorporating this research, too often students enter middle school without basic writing skills necessary for continued academic success. The program described below was designed to meet the need of those middle school students. But perhaps more importantly, the development of this program serves as a good model for how researchers and commercial publishers might collaborate to produce commercial materials that are research-based.

Postcards

Postcards is a CD-ROM instructional writing program for grades 5–8 published by Curriculum Associates (1996). The program teaches what are arguably some of the most difficult aspects of writing (i.e., planning and drafting). The program was developed by Curriculum Associates (CA) in collaboration with the National Center to Improve the Tools of Educators (NCITE). That collaboration between CA and NCITE began when *Postcards* was at its early, conceptual stage. NCITE’s principle role in this process was two-fold: a) to advise on how current empirical research could be incorporated into the development of the program, and b) to advise on how best to derive the greatest potential from computer-based instruction in order to

accommodate a wide range of student achievement levels within a single classroom.

The program title, *Postcards*, refers both to the type of writing students demonstrate initially, short “postcards,” and to the rich writing resources incorporated into the CD-ROM. Students are given the opportunity to “travel” to Ghana, Mexico, Japan, and Turkey in the program. The program provides students with bountiful, fascinating cultural experiences that include history, geography and sociology. By providing such a rich context, *Postcards* alleviates a common student complaint about not knowing what to write.

Postcards and big ideas. *Postcards* incorporates some of the big ideas in writing that were mentioned earlier in this paper: the writing process, text structures, and peer collaboration. Although the CD-ROM portion of the program focuses primarily on planning and drafting, *Postcards* addresses the entire writing process from planning to final published writing. The CD-ROM provides students with the initial instruction on planning and drafting using short writing assignments. Teachers then are expected to expand upon that initial instruction with longer assignments and instruction on revising and editing. The teacher’s manual for the program includes detailed lesson plans and other materials for use in the teacher-directed lessons.

Both the short and longer assignments are designed to incorporate instruction on four basic text structures: narrative, compare/contrast, persuasion, and description. Thus, *Postcards* effectively integrates the big ideas inherent in the writing process with instruction on text structures similar to the intervention used by Englert et al. (1991) in their work. *Postcards* also incorporates collaborative peer editing and other cooperative activities through the use of a built-in mail system that allows students to share their work among themselves and their teach-

ers. The notion of writing for a “real audience” is brought to life throughout the program.

Postcards and explicit, scaffolded instruction. As many educators know, encouraging students to plan before they write is often not sufficient to ensure that the students have acquired the necessary skills and confidence to get started with a writing project. The CD-ROM program offers optional instruction on the four text structures that is explicit and highly scaffolded. The ultimate goal is for students to write without being dependent on the scaffolded instruction. The teachers have the flexibility of determining the degree of scaffolded instruction needed by students based on their individual performance.

The program provides enough guidance for the teachers to provide explicit instruction on the major text structures, while gradually diminishing the scaffolding. For example, because writing assignments on the CD-ROM are relatively short and because the program provides a wealth of content information, teachers are able to assign four or five narrative assignments over time. The assignments then can be carefully sequenced so that the first assignment is fully scaffolded while the final assignment is completed independently. The major benefit of the on-line scaffolding is that it enables teachers to spend time working with those students who have the greatest needs.

Postcards and review. The abundance of historical, geographical, and cultural content incorporated into *Postcards* offers teachers the means to review important text structures as often as necessary to ensure student mastery. This review can be accomplished in several ways. For example, one approach would be to sequence instruction so that students are required to complete a narrative, a description, a compare/contrast and finally, a persuasive piece of writing. After completing a cycle of the four text structures, teachers would repeat the cycle.

Another approach, one that is more appropriate for low performing students, would be to make a few consecutive assignments on a single text structure then do the same for another text structure. Teachers would integrate previously mastered text structures into the instructional sequence for the purpose of review.

When students have mastered a text structure in the CD-ROM *Postcards* format, they can advance to longer individual and collaborative writing projects, also described fully in the teacher's manual. The manual provides reproducible "think sheets" for prewriting any text structure, specific think sheets for the four text structures, and additional think sheets for editing, revising, and publishing. The *Postcards* manual is, in effect, an integral part of a complete writing curriculum based on empirical research on writing instruction.

Conclusion

We have offered a brief review of important research relevant to writing instruction, including research that describes the needs of struggling writers. We then provided an overview of how that research was incorporated into a commercial program through the collaboration of researchers and program developers. It is important to note that the collaborative services were provided to Curriculum Associates at no cost (except for expenses incurred by NCITE staff). We value and support the collaboration among higher education, local school districts, and educational publishers. In fact, the collaboration process needs to continue in the field-testing of the material in classrooms where student learning can be documented and any problems with the instructional materials identified prior to publication. We feel strongly that it is through this type of collaboration on the integration of research into instructional practice that students and teachers will be given the type of

support that will enable them to succeed in their future academic or vocational endeavors.

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