Effective Writing Instruction Across the Grades: What Every Educational Consultant Should Know

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Writing is one of the most complex literate activities in which children and adults engage. Composing text entails deployment and coordination of multiple cognitive, linguistic, and physical operations to accomplish goals associated with genre-specific conventions, audience needs, and communicative purposes. These operations include planning, generating text, transcribing, reviewing, and revising and are recursive and iterative in nature (Bereiter & Scardamalia, 1987; Flower & Hayes, 1980; Hayes & Flower, 1980; Scardamalia & Bereiter, 1986). Not only is writing challenging for the inexperienced author but it creates anxiety, avoidance, and frustration for those who teach it. Teachers frequently comment that they lack the knowl-

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edge, skills, and strategies they believe would be helpful to them in facilitating children's emerging competence as writers (Trost, Maddox, & Cole, 2002). Consequently, teachers often look to experts, such as educational consultants, to suggest and model best practices in writing instruction. In this article, we review effective tactics for teaching text composition, spelling, and handwriting to children with and without writing problems.

Many children, including those with disabilities, struggle with writing. According to a recent National Assessment of Educational Progress, only 23% of 4th graders, 26% of 8th graders, and 22% of 12th graders performed at or above a proficient level of writing achievement for their respective grade level (Greenwald, Persky, Campbell, & Mazzeo, 1999). Furthermore, the scores of 16% of students in Grades 4 and 8 and 22% of students in Grade 12 fell below a basic level of writing achievement. Undoubtedly, the quality of instruction children receive plays a major role in their writing achievement (Graham & Harris, 2002a). Many students who find writing challenging are in classrooms that do not effectively incorporate best practices. For example, instruction for some students focuses almost exclusively on text transcription skills, such as handwriting and spelling, with few opportunities for authentic writing of whole texts (Palinscar & Klenk, 1992). Other students are in schools in which frequent writing and the writing process are emphasized but little time is devoted to teaching critical writing skills and strategies, as it is assumed these can be mastered through incidental teaching and learning (Westby & Costlow, 1991). Still other children attend classes in which virtually no time is devoted to either writing or writing instruction (Christenson, Thurlow, Ysselltyke, & McVicar, 1989). Even in classrooms in which teachers report teaching text transcription skills in the context of meaningful, authentic composing activities (e.g., Pressley, Rankin, & Yokoi, 1996; Pressley, Yokoi, Rankin, Wharton-McDonald, & Hampston, 1997; Wray, Medwell, Fox, & Poulson, 2000), it is likely that this type of instruction is not robust enough to meet the needs of an increasingly diverse student population in a high-standards-based educational context. What appears to be necessary is substantially more individualized and explicit teaching (i.e., use of extensive modeling, guided practice and coaching with informative feedback, and numerous and varied opportunities for independent practice) of lower level transcription skills and higher level composing strategies that both capitalizes on students' knowledge and experiences and incorporates effective adaptations and technological tools. This type of instruction may be most important for children who are likely to exhibit chronic and pernicious writing problems, including students with special needs.
WRITING PROBLEMS: WHAT DO THEY LOOK LIKE?

Compared with the texts of their more accomplished peers, papers written by struggling writers are shorter, incomplete, poorly organized, and weaker in overall quality (e.g., Englert & Raphael, 1988; Graham & Harris, 1989, 1991; Thomas, Englert, & Gregg, 1987). In addition, these students’ compositions typically contain more irrelevant information and more mechanical and grammatical errors (Graham, 1990; Graham & Harris, 1991; MacArthur & Graham, 1987; Thomas et al., 1987).

The problems experienced by struggling writers are attributable, in part, to their difficulties with executing and regulating the processes underlying proficient composing, especially planning and revising (e.g., Englert, Raphael, Fear, & Anderson, 1988; Graham & Harris, 1994b, 1997; Graham, Harris, & Troia, 1998). For example, struggling writers typically use an approach to writing that minimizes the role of planning, one in which they generate content in an associative, linear fashion without considering broader rhetorical or personal goals for their compositions and the constraints imposed by the topic and text structure (Graham, 1990; McCutchen, 1988; Scardamalia & Bereiter, 1986). When poor writers do allocate time for planning in advance, they often list potential content in a first-draft format, one that hinders the elaboration and exploration of ideas (Bereiter & Scardamalia, 1987). Children with writing problems tend to rely on a retrieve-and-write text generation process for two main reasons: they are overwhelmed by the demands of text transcription (Graham, 1990; Graham et al., 1998; McCutchen, 1988, 1996), and they are frequently asked to complete writing assignments that do not necessitate overt planning of content because the tasks entail a familiar genre and common format (Scardamalia & Bereiter, 1986).

Text appraisal and revision pose a considerable challenge for struggling writers as well. These students generally spend very little time revising and focus on more localized concerns such as changing word and phrase selections and editing mechanical errors (Fitzgerald, 1987; Graham, 1997; MacArthur & Graham, 1987; McCutchen, 1995). These minor revisions have little impact on the quality of students’ texts (e.g., Graham, MacArthur, & Schwartz, 1995; MacArthur & Graham, 1987; Scardamalia & Bereiter, 1986). There are three reasons why poor writers are not adept at making substantive revisions. First, they often fail to detect mismatches between what they intended and what they wrote (Beal, 1987; Fitzgerald, 1987). Second, they possess a limited ability to assume the reader’s perspective (Bereiter & Scardamalia, 1987; Sperling, 1996). Third, a strong emphasis on mechanics by teachers who work with struggling writers serves
to bias their students’ views of writing, leading them to believe that text appearance is paramount (Graham, 1982; Palincsar & Klenk, 1992; Wong, Wong, & Blenkinsop, 1989).

Many struggling writers also have extraordinary difficulty with the mechanics of translating content into written text. For example, the compositions written by students with learning disabilities are fraught with more spelling, capitalization, and punctuation errors than those written by their typically developing peers (Deno, Marston, & Mirkin, 1982; Fulk & Stormont-Spurgin, 1995). In addition, the handwriting of students with learning disabilities is slow and uneven (Graham & Weintraub, 1996) and their papers are less legible than those written by normally achieving students (MacArthur, Graham, & Skarvold, 1988). These disruptions in lower level text production skills hobble struggling writers’ ability to engage in higher order composing behaviors such as planning and revising (Graham, 1990; Scardamalia & Bereiter, 1986). It is little wonder, then, that handwriting and spelling performance account for a sizable portion of the variance in writing quality and fluency (Graham, Berninger, Abbott, Abbott, & Whitaker, 1997).

To address the chronic planning, revising, and transcription problems of struggling writers, a writing program must be comprehensive, well organized, challenging, sustained across the grades, and responsive to the needs of each child. Moreover, a creative and engaging balance of meaning, process, and form must be maintained through formal and informal teaching methods (Graham & Harris, 2002a; Graham, Harris, & Larsen, 2001). Although such a program is not easy to develop and implement and will not eliminate all writing difficulties, it is advantageous for three reasons (Graham et al., 2001). First, it helps to optimize the writing development of each child. Second, it decreases the number of children who experience writing problems as a consequence of poor instruction. Third, it serves to ameliorate the severity of writing difficulties experienced by students with disabilities.

In this article, we examine three areas to guide the work of consultants and teachers who wish to improve students’ writing performance. Our recommendations are especially important for helping those children who are most vulnerable, namely, students who experience difficulty learning to write.

**IMPLEMENT EFFECTIVE PRACTICES**

Table 1 presents the characteristics of effective writing instruction based on a review of the extant literature conducted by Graham and his colleagues
TABLE 1
Features of Exemplary Writing Instruction

- A literate classroom environment where students’ written work is prominently displayed, the room is laden with writing and reading materials, and word lists adorn the walls.
- Daily writing at school and at home with students working on a wide range of composing tasks for multiple audiences and purposes.
- A predictable writing routine in which students are encouraged to think, reflect, and revise.
- Writing used as a tool to explore, organize, and express ideas across the curriculum.
- Extensive efforts to make writing motivating by setting an exciting mood, creating a risk-free environment, allowing students to select their own writing topics or to modify teacher assignments, developing assigned topics compatible with students’ interests, reinforcing children’s accomplishments; specifying the goal for each lesson, and promoting an “I can” attitude.
- Overt teacher modeling of the writing process, writing strategies, and positive attitudes toward writing.
- Regular student-teacher conferences to discuss progress, establish writing goals and self-evaluation criteria, and provide individualized feedback.
- Cooperative arrangements where students help each other plan, draft, revise, edit, and publish their written work.
- Students presentation of work in progress and completed papers to other children to receive praise and critical feedback.
- Frequent opportunities for students to regulate their writing behaviors, the writing environment, and the use of resources.
- Instruction covering a broad range of knowledge, skills, and strategies, including writing conventions, sentence and text structure, the functions and forms of writing, and planning and revising.
- Follow-up instruction to ensure mastery of target writing knowledge, skills, and strategies.
- Periodic conferences and frequent communication with families to discuss the writing program and students’ progress.


(2001). What are the most salient characteristics? First, text production skills, planning, and revising, the three most troublesome aspects of writing for most struggling writers, are explicitly taught within a process writing framework. However, their relative emphasis is adjusted according to the needs of each student because not all struggling writers exhibit the same writing problems. For example, Juel (1988) found that some children who were poor writers had difficulties with both form (e.g., spelling) and process (e.g., content generation), whereas others had difficulty with just one or the other. This implies that teachers should communicate the equal
importance of form, process, and meaning, but their instruction should emphasize those aspects that are most problematic for any given student (Graham & Harris, 1997). Such individualized instruction may be delivered in the form of teacher–student conferences, teacher-directed minilessons on specific skills and strategies, peer tutoring lessons, and differentiated feedback on students’ work.

Second, the writing tasks are meaningful, varied, and challenging (Graham & Harris, 1994a; Troia, 2002). Children need to have the opportunity to write for real audiences and for broad purposes, such as writing a letter to a manufacturer to complain about a faulty product, authoring a poem to commemorate an important event or person, creating an advertisement for a school fund raiser, and writing a mystery to include in a class anthology. Authentic writing activities help students appreciate the power and influence of writing and foster a positive motivational regard for writing (Calkins, 1986). One particular way of ensuring that writing tasks are meaningful is to use content area topics and children’s literature as source material for writing assignments. At the very least, classroom writing activities must include more than the ubiquitous personal narrative if children are to be persuaded to use more sophisticated approaches (e.g., thoughtful planning) to writing. Poorly conceived writing tasks undermine teachers’ efforts to develop children’s knowledge about writing, writing skills, motivation to write, and self-regulation of the writing process.

Third, a predictable writing routine is evident in which planning, revising, and editing are expected and reinforced. More important, specific strategies for carrying out these processes are explicitly taught (Englert et al., 1991; Harris & Graham, 1999; Wong, 1997). Strategy instruction is well suited for addressing the particular needs of struggling writers because (a) it provides children with cognitive routines for managing the complexities of writing tasks; (b) it can help them gain greater awareness of their writing strengths and limitations and consequently be more strategic in their attempts to accomplish writing tasks; and (c) when it incorporates self-regulation procedures, such as goal setting, self-monitoring, self-evaluation, and self-reinforcement, strategy instruction enables students to reflect on their writing capabilities, adequately manage paralyzing thoughts, feelings, and behaviors, and empowers them to make adaptations to strategies when necessary (see Harris & Graham, 1992, 1996).

The Self-Regulated Strategy Development (SRSD) model provides one example of a strategy intervention that has been used successfully with both struggling and good writers (see Graham & Harris, 2003; Graham, Harris, & Troia, 2000; Harris & Graham, 1996, 1999). With SRSD, the teacher models how to use the target strategy and then provides students
with as much support as they need as they progress toward independent use of the strategy. Support ranges from the teacher working as a partner in applying the strategy to peers helping each other apply the strategy to simple reminders to use part or all of the strategy. Students also learn any background knowledge required to apply the strategy successfully (e.g., text structure), develop a thorough understanding of how the strategy supports their writing efforts, and systematically investigate how to apply the strategy across diverse contexts and writing tasks. Learning to use the strategy is further supported through the use of self-instructions, goal setting, self-monitoring, and self-evaluation. As an illustration, children often develop and use a specific self-statement for managing some aspect of their behavior (e.g., impulsiveness) that interferes with using the strategy, they are encouraged to evaluate how the strategy improved their writing, and they set goals for applying the strategy in novel situations. Throughout instruction, the importance of effort and collaborative interaction is stressed. Finally, instruction is criterion based, as students do not progress to subsequent stages of instruction (e.g., from supported to independent use of the strategy) until they have met the criteria for doing so.

The SRSD model has been used to teach a variety of planning and revising strategies to students with and without disabilities. These include brainstorming, semantic webbing, generating and organizing writing content using text structure organization (e.g., story grammar), revising using peer feedback, and revising for both mechanics and substance. Instruction in these strategies has led to improvement in four characteristics of students' performance: quality of writing, knowledge of writing, approach to writing, and attitudes about writing (e.g., Graham & Harris, 2003; Graham, Schwartz, & MacArthur, 1993; Troia, Graham, & Harris, 1999).

TAILOR INSTRUCTION TO MEET THE NEEDS OF STRUGGLING WRITERS

Outstanding teachers thoughtfully and skillfully make adaptations to their instructional methods, materials, and expectations for student performance (Graham & Harris, 2002a). In a study by Pressley et al. (1996), for instance, exemplary K–2 literacy teachers reported that they provided qualitatively similar instruction for all their students but that they gave children who struggled with literacy extra teacher support. This included devoting more attention to the development of basic skills, more explicit teaching of these skills, and more individual assistance. Graham, Harris, Fink, and MacArthur (2003) surveyed a nationwide sample of primary grade teach-
ers to identify the types of adaptations they made for struggling writers. Teachers reported devoting more time to teaching handwriting, phonics for spelling, and capitalization and punctuation skills to weaker writers than to average writers. Teachers also were more likely to reteach writing skills to struggling writers, provide minilessons responsive to their needs, and conference with them about their writing. In addition to providing extra instruction, teachers helped students overcome text transcription difficulties by developing personalized spelling lists for weaker writers, directly helping them spell unknown words, providing resources (e.g., word banks) designed to facilitate correct spelling, or bypassing text transcription difficulties by allowing poor writers to dictate their compositions or write with a keyboard. Likewise, teachers provided additional support for planning and revising by having struggling writers discuss their ideas before writing, use graphic organizers to generate and sequence ideas, draw pictures to prompt recall of events, and revise with the assistance of the teacher, a peer, or a checklist. Other adaptations included help with selecting writing topics, shorter or easier writing assignments, small-group instruction, additional homework, and extra instruction on grammar and sentence writing skills.

Unfortunately, almost 20% of the teachers in the sample reported making no adaptations, whereas another 24% reported only one or two adaptations. Moreover, not all of the reported adaptations were positive ones. For example, in comparison to their peers with average writing skills, students with poor writing skills were less likely to share their writing with classmates, help others, select their own writing topics, or complete assignments at their own pace. Thus, consultants need to not only recommend adaptations that facilitate writing success but guard against those that might hinder it.

**IDENTIFY AND ADDRESS ACADEMIC AND NONACADEMIC ROADBLOCKS TO WRITING SUCCESS**

A critical element in enhancing the writing development of students who struggle with writing is to identify and address obstacles that impede their success in learning to write. Some struggling writers may exhibit maladaptive behaviors, including a low tolerance for failure, lack of persistence, and attention problems. Examples of how teachers can address such roadblocks include helping students (a) redirect their attributions for success to effort and strategy use; (b) use self-statements that reflect these posi-
tive attributions (e.g., “Good writing takes hard work”); and (c) monitor their writing behaviors, writing performance, and strategy use to improve productivity and on-task behavior (see Harris, Graham, Reid, McElroy, & Hamby, 1994; Sexton, Harris, & Graham, 1998).

Another roadblock that must be addressed for many struggling writers is poor text transcription skills. When children with writing difficulties have to devote substantial cognitive resources to spelling and handwriting, often with limited success, attention to writing content, organization, and style is minimized (McCutchen, 1996). Consequently, instructional time and effort should be allocated to boosting their spelling and handwriting accuracy and fluency. In Tables 2 and 3, we summarize validated procedures for teaching spelling and handwriting, respectively. Accord-

**TABLE 2**
Research-Based Procedures for Teaching Spelling

- A minimum of 60–75 min per week is allotted for spelling instruction.
- Spelling vocabulary includes words drawn from children’s reading materials, their writing, self-selected words, and high-frequency word lists (e.g., Graham, Harris, & Loynachan, 1993, 1994).
- Students are taught phoneme-grapheme associations, common spelling patterns, and helpful spelling rules.
- Students take a pretest to determine which words they need to study during subsequent activities and to set spelling performance goals.
- After studying new spelling words, students take a posttest to determine which words were mastered.
- Immediately after taking a spelling test, students correct their misspellings.
- Students are taught a systematic and effective strategy for studying new spelling words.
- Daily opportunities for cumulative study and testing of new spelling words are provided.
- Students work together to learn new spelling words.
- While studying, children monitor their on-task behavior or the number of times they correctly spell a target word.
- Previously taught spelling words are periodically reviewed to promote retention.
- Correct use of spelling vocabulary in children’s written work is monitored and reinforced.
- Students are encouraged to use dictionaries, spell checkers, and other resources to determine the spelling of unknown words.
- Students use personalized dictionaries for commonly misspelled words.
- Spelling “demons” and other difficult words are posted on wall charts.

## TABLE 3
Research-Based Procedures for Teaching Handwriting

- In the primary grades, 75–100 min per week is allotted for handwriting instruction.
- Special emphasis is placed on difficult to form letters, such as a, j, k, n, q, u, and z, and those that are frequently reversed.
- Letters that share common strokes (e.g., a, d, and g) are grouped together.
- The introduction of easily-confused letters (e.g., b and d) is staggered.
- The formation of individual upper- and lowercase letters is modeled by the teacher.
- Visual cues, such as numbered arrows and colored lines, are used to guide letter formation.
- Similarities and differences between letters are highlighted.
- Activities to reinforce letter recognition and naming are combined with handwriting practice.
- Students are given opportunities to trace, copy, and write from memory target letters.
- Students practice using a comfortable and efficient tripod pencil grip.
- Students are shown and expected to use appropriate posture and paper positioning for their handedness.
- Handwriting fluency is developed through frequent writing and speed trials.
- Children’s handwriting is monitored and immediately reinforced for correct letter formation, spacing, alignment, size, slant, and line quality.
- Opportunities for distributed practice and judicious review of individual letters and letter sequences are provided.
- Children are asked to self-evaluate their handwriting and to set goals for improving specific aspects of their handwriting.
- Students are encouraged to correct poorly formed letters and rewrite illegible work.
- Students are permitted to develop their own handwriting style and to choose which script (manuscript or cursive) they prefer to use.


According to Graham (1999), effective spelling instruction includes four components. First, students need to be taught how to spell words they frequently use when writing. Second, children need to learn how to generate plausible spellings for unknown words. Teachers can facilitate the development of this skill by explicitly teaching phonemic awareness, grapheme–phoneme correspondences, common spelling patterns, highly generalized spelling rules, dictionary skills, and strategies for becoming “spelling detectives,” such as spelling by analogy (e.g., Cunningham & Hall, 1998; Englert, Hiebert, & Stewart, 1985). Third, children need to know how to check and correct any spelling miscues that occur. This includes learning to use spell checkers and other aids, such as using a dictionary, soliciting editing assistance from others, and applying strategies such as reading text
aloud in reverse order to locate misspellings. Fourth, students need to develop a sensible desire to spell correctly. Teachers can promote such a desire by modeling correct spelling and by providing numerous opportunities for students to display their work in a public forum (e.g., a school newspaper) in which correctness is expected.

Similarly, effective handwriting instruction includes four components. First, letter and word formation, pencil grip, and paper positioning must be explicitly modeled, practiced, and reviewed. Second, students need to be provided with facilitative supports for attaining legible handwriting. Such supports include numbered arrows that depict correct letter stroke sequences, verbal descriptions of strokes, hand-over-hand physical assistance, reminders to use good handwriting, paper positioning marks on students’ desks, tripod grip molds, and raised- or colored-lined paper. Third, children must develop the capacity for independently evaluating and improving their handwriting. Teachers can assist in this development by immediately reinforcing qualitatively superior handwriting attempts and asking students to apply similar criteria while making their own judgments. They also can encourage students to keep track of their handwriting performance, set goals for improving it, and correct poor handwriting attempts. Fourth, students need to be taught to produce handwriting fluently. Teachers can help students increase their handwriting speed (without concomitant decrements in legibility) by providing ample opportunities to write by hand and by administering speed trials during which students try to copy texts 5%-10% faster on each subsequent trial. After students have mastered basic handwriting skills, they should be permitted to create more efficient, personalized ways of forming letters and words by eliminating or modifying redundant and expendable strokes and by electing to use manuscript, cursive, or a combination of the two to complete written assignments.

CONCLUDING REMARKS

In addition to the three areas just discussed, consultants can facilitate effective writing instruction for struggling writers by helping teachers develop a “can do” attitude. Teachers are not powerless—children with severe writing problems, including those with special needs, can be taught to write (Graham & Harris, 2002b). One way that consultants can foster such confidence is by demonstrating in the classroom how to use effective writing instructional tactics like the SRSD approach. It is much more powerful and affirming to model how to provide effective instruction than to simply describe it.

Consultants also need to become familiar with technological tools that make the processes of writing easier and, for some students, more motivat-
ing. Word processing, for instance, can support struggling writers by making it easier for them to revise a document, as it eliminates tedious recopying (MacArthur, 1996). Similarly, spelling can be supported through the use of spell checkers, speech-recognition software, and word-prediction software; planning, through the application of outlining and semantic-mapping software; and collaboration and communication, through the use of computer networks. These tools are not without their limitations, though. Consequently, educational and psychological consultants need to be familiar with not only how to operate such tools but also when, where, and with whom they are most applicable.

Finally, struggling writers are more likely to become good writers if they get help early on, in the primary grades, before their difficulties become more intractable (Graham & Harris, 2002b). This is the point at which consultants can have their strongest impact. For some struggling writers, it may be necessary to provide them with additional specialized instruction during these grades, either through individual tutoring or small-group instruction. Consultants should be involved not only in recommending such placements but, in our opinion, in providing exemplary instruction.

REFERENCES


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