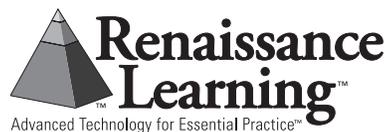


Effective Writing Instruction for All Students

Steve Graham, Vanderbilt University

Written for Renaissance Learning



Imagine the public's reaction to these newspaper headlines:

Almost 60% of Children Cannot Read Classroom Material

50% of High School Graduates Not Prepared for College-Level Reading

Reading Remediation Costs Businesses \$3.1 Billion a Year

Parents, grandparents, business leaders, college presidents, and politicians would be incensed, demanding immediate action to rectify this alarming situation. Well, if we substitute the word *write* for *read* and *writing* for *reading* this accurately represents the state of affairs for writing in American society. It is time to take action. All students need to learn to write effectively now.

Why is this so important? Youngsters who do not learn to write well are at a considerable disadvantage. At school, they earn lower grades, especially in classes where written tests and reports are the primary means for assessing students' progress. They are less likely than their more skilled classmates to use writing to support and extend what they are learning in content classes. There is considerable evidence that writing about content in science, social studies, and other content areas enhances how much students learn (Bangert-Drowns, Hurley, & Wilkinson, 2004; Graham & Perin, 2007a). And the opportunity to attend college is reduced, as writing is now used to evaluate applicants' qualifications.

Struggling writers also face considerable barriers in the "real" world. At work, writing is a gateway for employment and promotion, especially in salaried positions (National Commission on Writing, 2004, 2005). Employees in business as well as government must be able to create clearly written documents, memorandum, technical reports, and electronic messages. Moreover, participation in civic life and the community at large has increasingly required the ability to write, especially as the use of email and text messaging has become so widespread.

How Did We Get Into This Situation?

Despite its importance, writing does not receive enough attention in contemporary schools. My colleagues and I recently asked a random sample of high school teachers from across the United States to tell us about writing instruction in their classrooms (Kihara, Graham, & Hawkin, in press). The most common writing activities that their students engaged in were writing short answer responses to homework, responding to material read, completing worksheets, summarizing material read, writing journal entries, and making lists. Together, these activities involved little extended analysis, interpretation, or writing. In fact, one half of the most common assignments were basically writing without composing (short answers, worksheets, and lists).

Many teachers told us that they were not adequately prepared to teach writing. Almost one half of them indicated that they had received minimal to no preparation to teach writing. This included the preparation they received at college, from their school district, and through their own efforts. Such preparation is extremely important, as we found that those who were better prepared were more likely to use writing practices with a proven record of success and to make needed instructional adjustments for struggling writers.

How Do We Turn This Situation Around?

Somerset Maugham, the renowned novelist, once joked that, "There are three rules for writing a novel. Unfortunately no one knows what they are." Maugham's jest implies that there is little certainty about how to teach writing. While we may not know a lot about how to turn a good writer into a great novelist, we do know how to help developing writers become competent writers. An important step in turning around the current situation, then, is to make sure that all students are taught how to write using effective practices.

Writing is a complex skill. It requires considerable effort and time to master. While a single, effective teacher can have a strong impact on a child's writing development, the Herculean efforts of a few are no match for the sustained and concerted efforts of an entire organization. If a single teacher can make a difference, imagine what happens when students are taught to write well beginning in first grade and all the way through high school.

It is especially important that students get off to a good start in writing. Waiting until later grades to address literacy problems that have their origins in the primary grades is not particularly successful (Slavin, Madden, & Karweit, 1989). As students move towards the middle school grades, the teaching of writing becomes more complex, as it no longer revolves around a single teacher at each grade level. Writing and writing instruction become a shared responsibility across disciplines. English, science, social studies, and other content teachers must all devote significant attention to the teaching of writing, if they expect students to learn how to write effectively within their discipline.

What Are Effective Writing Practices?

Effective writing practices have a proven record of success. In other words, they have been shown to be successful in enhancing students' writing on multiple occasions. Primary sources for such practices are scientific studies examining the effectiveness of specific teaching techniques. They provide a trustworthy approach for identifying an effective practice, as such investigations provide direct evidence the intervention works as well as how much confidence can be placed in its effect. To provide recommendations for teaching writing, I draw upon several recent reviews of the scientific writing intervention literature (Graham, in press; Graham & Perin, 2007a; Rogers & Graham, in press) and present only those practices that have been validated in four or more studies.

Another useful method for identifying effective writing practices is to identify recurring patterns in the instruction of teachers and schools that produce exceptional literacy achievement. It is reasonable to assume that practices that are idiosyncratic to a specific teacher or school are potentially less important than those that are employed across all or most studies of such teachers and schools. Graham and Perin (2007b) identified writing practices that were used in most studies examining exceptional teachers and schools, and I include those findings as well.

Writing practices are likely to be even more effective if they are embedded within a framework of what we know about how youngsters move from initial acclimation (i.e., novice writer) to competence (i.e., skilled writer). According to Alexander (1997) and Graham (2006), the road from novice to competent writer is paved by changes in students' writing knowledge, motivation for writing, strategic writing behaviors, and basic writing skills. Using this framework, along with the available scientific evidence on effective writing practices, I offer seven recommendations for teaching writing that apply across grade levels. The 27 evidence-based practices based on the sources I have just identified are numbered (in parentheses), and the academic source for each is provided so that interested readers can examine the evidence in more detail if so desired.

Seven Recommendations for Teaching Writing

1. Dedicate time to writing, with writing occurring across the curriculum, and involve students in various forms of writing over time.
2. Increase students' knowledge about writing.
3. Foster students' interest, enjoyment, and motivation to write.
4. Help students become strategic writers.
5. Teach basic writing skills to mastery.
6. Take advantage of technological writing tools.
7. Use assessment to gauge students' progress and needs.

Effective Writing Instruction for All Students

Recommendation 1. Dedicate time to writing, with writing occurring across the curriculum, and involve students in various forms of writing over time.

William Hazlitt, the nineteenth-century novelist, observed that, “The more a man writes, the more he can write.” This simple homily recognized that the opportunity to write is the foundation on which an effective writing program is built. In other words, students are not likely to make much progress as writers if they are not given plenty of opportunities to apply and develop their craft.

Teachers that achieve exceptional success in teaching writing recognize the importance of frequent and sustained writing (#1: Graham & Perin, 2007b). A good rule of thumb is that students should spend at least one hour or more each day in the process of writing—planning, revising, authoring, or publishing text. This includes writing projects that go beyond a single paragraph or day-to-day projects that may take weeks or even months to complete.

These teachers further recognize the need for students to learn to write for multiple purposes (#2: Graham & Perin, 2007b), including:

- Communicating with others (e.g., personal letters, business letters, notes, cards, email)
- Informing others (e.g., writing reports; explaining how to do something; describing an event, object, or place)
- Persuading others (e.g., expressing an opinion about a controversial topic)
- Learning content material (e.g., summarizing, learning logs, journal entries)
- Entertaining others (e.g., writing stories, plays, poems)
- Reflecting about self (e.g., writing about personal events, autobiography)
- Responding to literature (e.g., book evaluations, analyzing authors’ intentions)
- Demonstrating knowledge (e.g., traditional classroom tests, high-stakes tests involving writing)

Students should use writing for these purposes at all grade levels. At the middle and high school levels, this should involve a concerted effort by multiple teachers (#3: Graham & Perin, 2007b). For example, an English teacher may have students use writing to entertain, respond to literature, demonstrate knowledge, and persuade. A social studies teacher may use writing for demonstrating knowledge, but address other purposes of writing including self-reflection, learning (#4: Graham & Perin, 2007a), informing, and communicating, whereas a science teacher may focus mainly on writing to learn, demonstrating knowledge, and persuasion. In addition, writing activities need to become more complex from one grade to the next. For instance, in the primary grades it is reasonable to expect that students’ persuasive text will contain a statement of belief or premise, several supporting reasons, and a concluding statement. Persuasive essays by older students, however, should further refute counterarguments and provide more sophisticated explanations and examples. Obviously, this requires that teachers at a given grade level and across grade levels coordinate their writing programs and activities.

Recommendation 2. Increase students’ knowledge about writing.

To become an effective writer, students need to acquire knowledge about the characteristics of good writing as well as the different purposes and forms of writing (listed under Recommendation 1). One way to acquire knowledge about writing is through reading. Reading well-crafted literature provides a model that illustrates the characteristics of good writing. This includes how authors use words to evoke specific images and feelings, manipulate sentences to speed or slow down the flow of text, organize ideas, set and change the mood of text, or use illustrations to reinforce and sharpen a reader’s understanding.

Reading also provides a vehicle for learning about the different purposes and forms of writing. As students read an autobiography, for instance, they are likely to notice how the author presents himself. An astute reader may also notice the author uses his life story as a means for sharing lessons learned about living well or poorly.

While students clearly acquire some knowledge about writing through reading, how much they learn is unknown. Teachers can enhance this process by engaging students in a discussion of what an author is trying to achieve, and then asking them to apply the same procedures to their own writing. For instance, after reading a story, direct students' attention to how the author used words to evoke a specific feeling (e.g., foreboding). Then ask students to try to use words to evoke a similar feeling in their own writing.

A second approach for facilitating students' acquisition and use of discourse writing knowledge is to provide them with models of specific types of writing (#5: Graham & Perin, 2007a). For example, when introducing students to mystery writing, a good starting point is to examine several mysteries to identify common features, such as placing the story in a particular place and time or the use of cues and false leads. Students can then be asked to generate a mystery of their own, using the model to guide their efforts.

While such discourse knowledge is important, it has little impact if the writer knows little about the topic of their composition. If this is the case, students can acquire knowledge from written or electronic sources, interviews, surveys, or observations. One effective approach for obtaining information for writing is inquiry (#6: Graham & Perin, 2007a). To illustrate, a teacher may ask students to write a paper where conflict is an important element in the story. Then, each student develops a plan for collecting and analyzing data on conflict (e.g., observe arguments that happen on the playground and later talk to the each participant about what they thought and felt). Finally, students use insights obtained from their analysis to write their stories.

Recommendation 3. Foster students' interest, enjoyment, and motivation to write.

Most children start school wanting to learn how to write. Too quickly many of them come to view school writing as a chore or something to be avoided altogether. How can we create an environment in which developing writers not only flourish, but also learn to enjoy writing? An important ingredient in fostering students' interest in writing is to make sure their writing assignments serve a real or meaningful purpose (#7: Graham & Perin, 2007b). For example, it is more motivating to write a letter to a real person than an imaginary one.

And students are more likely to enjoy writing if the classroom environment is a supportive and pleasant place (#8: Graham & Perin, 2007a). This means being accepting and encouraging of students' writing efforts and encouraging them to act in a like manner with each other. For instance, a good rule to follow is that when a student shares her writing, the first thing your students or you comment on is what is liked best about the piece of writing.

A writing activity is likely to be more fun when students work together. This is most effective when the process of working together is structured so each person knows what they are expected to do. Especially productive collaborations occur when students help each other as they plan, draft, revise, edit, and/or publish their work (#9: Graham & Perin, 2007a, 2007b). To illustrate with revising, one student might read a completed composition to a peer, who tells the writer several things he liked about it, and then takes the paper and rereads it to identify places that are unclear or additional information is needed. The reader shares this information with the writer by asking, "What did you mean here?" and "Can you tell me more about this?" The writer uses these exchanges to make decisions about how to revise the paper.

Your students are also likely to be more motivated to write if you are enthusiastic about writing (#10: Graham & Perin, 2007b). Show your students that you are a writer by sharing your own writing with them. Celebrate student success by displaying and praising their very best work. And look for ways to connect writing to their lives outside of school.

Set high, but realistic, expectations for your students (#11: Graham & Perin, 2007b), and help them develop an "I can do" attitude. When they need help, provide just enough support so they can make progress in carrying out the writing task, but encourage them to do as much as they can on their own (#12: Graham & Perin, 2007b). It is also important they develop a sense of ownership for their writing. This can be fostered by encouraging them to construct a personal plan for accomplishing the writing task, work at their own pace (when possible), and decide what feedback from peers and the teacher is most pertinent for revising a paper.

Recommendation 4. Help students become strategic writers.

Most of what goes on during writing is not visible. It occurs inside the writer's head. Much of this thinking centers on the basic processes of writing: planning, drafting, revising, and editing (Graham, 2006). How can teachers help developing writers apply these processes effectively?

One thing exceptional writing teachers do is set up a predictable writing routine where students are expected to plan, draft, revise, edit, and share what they write (#13: Graham & Perin, 2007a, 2007b). In essence they treat writing as a process, and expect students to engage in the same processes as skilled writers.

However, only encouraging students to engage in these processes is not enough. They need more direct assistance to apply the processes effectively. One means of support involves the use of think sheets or graphic organizers that structure what students do as they plan, draft, revise, or edit (#14: Graham & Perin, 2007a; Rogers & Graham, in press). A think sheet or graphic organizer for planning a paper, for example, might direct a student to identify their audience and purpose for writing the paper, generate possible content (in note form), decide which basic ideas to use (by putting a star next to them), and order the ideas for writing (using numbers to note what will come first, second, third, and so forth).

An even more powerful approach is to teach students planning, drafting, revising, and editing strategies they can use independently (#15: Graham & Perin, 2007a; Rogers & Graham, in press). A strategy involves a series of actions or steps that a writer undertakes to achieve a desired goal. This includes simple strategies, like brainstorming and semantic webbing, or more complex ones, such as integration of multiple strategies in complex writing tasks, such as writing a report (Graham & Harris, 2005; Harris, Graham, Mason, & Freidlander, 2008).

An effective method for teaching a writing strategy includes the following (#16: Graham & Perin, 2007a; Rogers & Graham, in press):

- Describe the writing strategy and the purpose for learning it
- Make it clear when students should use the strategy
- Show students how to use the strategy
- Provide students with practice applying the strategy, giving assistance as needed
- Continue instruction until students can use the strategy independently
- Encourage students to apply the strategy in appropriate situations once instruction has ended
- Ask students to evaluate how the strategy improved their writing

Such instruction is likely to be even more effective if you are enthusiastic about the power of the strategy and establish the importance of effort in learning and using it. Provide opportunities for students to see how the strategy improves their writing, praise and reinforce its use, and foster students' ownership of it.

These same procedures can also be used to teach other types of writing strategies, such as summarizing (#17: Graham & Perin, 2007a) and strategies for paragraph writing (#18: Rogers & Graham, in press). For example, a written summarization strategy might involve teaching students how to apply a series of reduction principles (e.g., delete unnecessary material, delete redundant material, select a word to replace similar ideas or items, draft a topic sentence).

Recommendation 5. Teach basic writing skills to mastery.

There are many skills that developing writers need to learn to the point where they can be executed with little effort or thought. This includes handwriting (or typing), spelling, punctuation, and capitalization skills. While sentence construction skills always require conscious attention and effort, developing writers need to become efficient and flexible in constructing the written vessels that contain their ideas. Why is this so important? Until they are mastered, these skills require considerable mental energy, as do the thinking processes involved in writing. Mental energy expended to type or write letters, figure out how to spell a word, determine proper punctuation, or construct a sentence is not available for carrying out other essential writing processes like planning, evaluating, revising, and so forth (Graham, 2006).

Exceptional teachers recognize the importance of helping young developing writers master basic transcription (i.e., handwriting and spelling) and sentence construction skills, as they explicitly and directly teach them (#19: Graham & Perin, 2007b). Their basic approach for teaching such skills is to explain, model, and provide guided practice (#20: Graham & Perin, 2007b). This can be illustrated with sentence combining, an effective practice for teaching students how to form more complex sentences (#21: Graham & Perin, 2007a, 2007b). Such instruction would begin with the teacher explaining that he or she is going to show students how to form two or more sentences into a single sentence (one that is better than the two separate sentences). The process is modeled and remodeled (using different but similar sentences) as the teacher involves students in helping to form the new sentence. Once students have the basic idea, they practice combining sentences (this can be done with a peer) similar to those modeled by the teacher. Then they apply what they learned as they revise one or more previously written compositions.

Most developing writers become facile enough with spelling, handwriting, or typing by the time they move into middle school that these skills no longer interfere with the thinking processes involved in writing (or the interference is minimal). This is not the case for all students though, and for these youngsters additional instruction can have a positive impact on their writing (#22: Graham, in press).

Recommendation 6. Take advantage of technological writing tools.

There is an incredible array of new technological tools for writing. One of my favorites is the “thought translation device” developed by scientists in Germany for a paralyzed man suffering from Lou Gehrig’s disease (Begley, 1999). The device is able to dampen and amplify the man’s brainwave patterns in a way that permits him to select letters from a video screen in order to spell his messages.

A variety of more familiar technological devices, many of them electronic, can be used to support developing writers in general and struggling writers in particular. These tools make the process of writing easier and often provide very specific types of support. The most common of these tools is word processing (#23: Graham & Perin, 2007a; Rogers & Graham, in press), which provides at least three advantages: (1) revisions can be made easily, (2) the resulting paper can be presented in a variety of professional-looking formats, and (3) typing provides an easier means of producing text for many children with fine motor difficulties (of course, students need to be taught to type to realize the benefit of this potential advantage). Furthermore, word-processing programs are typically bundled with other software programs, such as spell and stylistic checkers, designed to reduce specific types of miscues.

Perhaps the biggest drawback to the use of word processing in today’s schools is a lack of computer hardware that is easily portable. The recent development of durable, lightweight, inexpensive, and battery-charged writing notepads, such as NEO by AlphaSmart/Renaissance Learning, provides a viable solution to this problem.

Perhaps the biggest drawback to the use of word processing in today’s schools is a lack of computer hardware that is easily portable. The recent development of durable, lightweight, inexpensive, and battery-charged writing notepads, such as NEO by AlphaSmart/Renaissance Learning, provides a viable solution to this problem.

Other electronic writing tools teachers may want to consider (though there is only limited scientific evidence of their effectiveness) include speech synthesis (the writer’s spoken words are transcribed to electronic text) and word prediction programs (the computer program reduces key strokes by predicting the writer’s next word). These programs can help students who experience considerable difficulties with spelling and the mechanical aspects of writing. In addition, outlining and semantic mapping software can facilitate the planning process, while communication and collaboration among developing writers can be promoted through the use of computer networks and the Internet.

Recommendation 7. Use assessment to gauge students' progress and needs.

Assessment is an integral part of writing instruction. It allows teachers to determine if their writing program is working, whether it needs to be adjusted, and if some children need extra help. Although there is no consensus on how writing is best assessed, teachers often focus their attention on these features of students' writing:

- Are ideas in text clearly presented and fully developed?
- Is the text easy to follow and logically organized?
- Are words used effectively and precisely?
- Are sentences varied to promote fluency, rhythm, and natural speech patterns?
- Does the text capture appropriate tone or mood to make maximum impact on the reader?
- Are there spelling, usage, and grammar errors?
- Is the written product legible, attractive, and accessible?

One way to assess these traits in a sample of student writing is to evaluate each one separately by using a rating scale. For example, teachers could rate each trait on 1 to 9 scale, where a higher score represents stronger performance and a lower score represents weaker performance. Some of these traits can also be scored more objectively. For example, teachers could count the number of words that a student uses effectively in a piece of text and divide it by the total number of words written as a measure of good word choice.

In addition to examining students' written work, it is also important to monitor how youngsters go about the process of composing as well as their attitudes toward writing. Students can play a direct role in this process by keeping a log of what they did while writing each paper and a journal where they explain how they felt before, during, and after they completed each paper.

An especially important aspect of writing assessment is to identify students who need extra help. Although exceptional writing teachers frequently adapt what they are doing to better meet the needs of individual students (#24: Graham & Perin, 2007b), some teachers do not. In a series of studies with teachers from across the United States, a sizable minority of them (40%) made little or no instructional adjustments for their students (Cutler & Graham, in press; Graham et al., in press).

Adaptations that may be helpful with struggling writers include the following:

- Provide extra instruction in planning, revising, text organization, sentence construction, handwriting, or spelling
- Reteach skills and strategies not mastered
- Develop small-group and individual mini-lessons to meet the needs of struggling writers (#25: Graham & Perin, 2007b)
- Modify writing assignments so they better match the student's capabilities
- Allow extra time to complete writing assignments
- Praise both performance and effort frequently (#26: Rogers & Graham, in press)
- Increase frequency of conferences with students about their writing and works in progress
- Establish procedures where struggling writers can obtain help from their peers

Assessment should not just be limited to teachers. It is also helpful to have students assess their own writing progress. This may be especially powerful if students are assessing their writing performance in relation to a self- or teacher-identified writing goal (#27: Graham & Perin, 2007a; Rogers & Graham, in press). For example, a student is more likely to meet a self-selected goal to use 10 or more describing words in each daily journal entry if they track their progress in doing so. Likewise, they are more likely to apply a newly learned writing strategy if they identify where it can be used, set a goal to use it there, and assess if their use of the strategy was effective (Harris, Graham, & Mason, 2006).

Final Comment

The 27 evidence-based writing practices embedded within the seven recommendations presented provide a solid foundation for building effective writing programs for all students at all grade levels. It should not be assumed, however, that each of these practices will automatically be successful in your classroom. It is critical that you monitor their success and adjust or modify them as needed.

Likewise, just because a writing practice was not included here does not mean that it is ineffective. For instance, there are writing practices, such as the teaching of vocabulary as a means for enhancing writing or parental involvement in the writing program, where there is some preliminary evidence to suggest the practices are effective, but the findings have not been replicated often enough to ensure they are reliable (Graham & Perin, 2007c). And there are other instructional practices that have not been studied at all, which may or may not be effective. We simply do not know. If you use such a practice, I would encourage you to monitor its success, just like you would with an evidence-based technique.

Finally, I would like to provide some guidance on how a less experienced teacher might go about implementing the practices presented in this paper. A good starting place is to establish an environment where students are expected to write each day, engaging in the basic processes of writing (planning, drafting, editing, revising, and publishing), as they compose. This environment should be supportive and engaging, where students write for real purposes and share their writing with others. While establishing such an environment is not dependent on using word processors as the primary tool for writing, this mode of writing will make it easier for youngsters to carry out some aspects of the writing process, like editing and revising.

I would also recommend that different genres of writing (story, persuasion, informative, and so forth) be introduced within the context of this structure, with the teacher devising a unit of study around each type of writing. Such units would preferably begin with students reading one or more examples of the genre, as a starting place for acquiring knowledge about the characteristics of that genre. Hopefully the teacher would initially model how to plan, draft, edit, revise, and share a composition in the target genre, with students providing the teacher with help at each step of the process. Then students would start composing their own papers in this area (either alone or with other students), as the teacher provides assistance as needed.

After the first unit is underway, needed instruction in basic skills such as handwriting, typing, spelling, or sentence construction should begin. As each of these different aspects of the writing program are actualized, it is important to maintain a reasonable balance between time spent writing and time spent teaching students the knowledge, strategies, and skills needed to write effectively.

Once a basic structure for writing and writing instruction is established, other effective practices should be systematically incorporated into the writing program, such as assessment techniques, practices for enhancing motivation, and so forth. Of course, more experienced teachers will be able to implement these procedures right from the start.

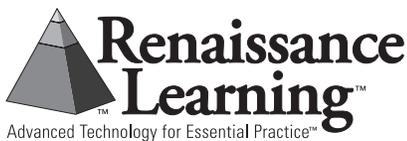
References

- Alexander, P. A. (1997). Mapping the multidimensional nature of domain learning: The interplay of cognitive, motivational, and strategic forces. In M. L. Maehr & P. R. Pintrich (Eds.), *Advances in motivation and achievement* (Vol. 10, pp. 213–250). Greenwich, CT: JAI Press.
- Bangert-Drowns, R. L., Hurley, M. M., & Wilkinson, B. (2004). The effects of school-based writing-to-learn interventions on academic achievement: A meta-analysis. *Review of Educational Research, 74*, 29–58.
- Begley, S. (1999). Thinking will make it so. *Newsweek, 133*(14), 64.
- Cutler, L., & Graham, S. (in press). Primary grade writing instruction: A national survey. *Journal of Educational Psychology*.
- Graham, S. (in press). Teaching writing. In P. Hogan (Ed.), *Cambridge encyclopedia of language sciences*. Cambridge, UK: Cambridge University Press.
- Graham, S. (2006). Writing. In P. Alexander & P. Winne (Eds.), *Handbook of educational psychology* (pp. 457–478). Mahwah, NJ: Erlbaum.
- Graham, S., & Harris, K. R. (2005). *Writing better: Teaching writing processes and self-regulation to students with learning problems*. Baltimore: Brookes.
- Graham, S., Morphy, P., Harris, K., Fink-Chorzempa, B., Saddler, B., Moran, S., et al. (in press). Teaching spelling in the primary grades: A national survey of instructional practices and adaptations. *American Educational Research Journal*.
- Graham, S., & Perin, D. (2007a). *Writing next: Effective strategies to improve writing of adolescents in middle and high schools—A report to the Carnegie Corporation of New York*. Washington, DC: Alliance for Excellence in Education.
- Graham, S., & Perin, D. (2007b). What we know, what we still need to know: Teaching adolescents to write. *Scientific Studies in Reading, 11*, 313–336.
- Graham, S., & Perin, D. (2007c). A meta-analysis of writing instruction for adolescent students. *Journal of Educational Psychology, 99*, 445–476.
- Harris, K. R., Graham, S., & Mason, L. (2006). Improving the writing, knowledge, and motivation of struggling young writers: Effects of self-regulated strategy development with and without peer support. *American Educational Research Journal, 43*, 295–340.
- Harris, K. R., Graham, S., Mason, L., & Friedlander, B. (2008). *Powerful writing strategies for all students*. Baltimore: Brookes.
- Kiuhara, S., Graham, S., & Hawkin, L. (in press). Teaching writing to high school students: A national survey. *Journal of Educational Psychology*.
- The National Commission on Writing in America's Schools and Colleges. (2004, September). *Writing: A ticket to work...Or a ticket out: A survey of business leaders*. New York: College Entrance Examination Board. Available online from http://www.writingcommission.org/prod_downloads/writingcom/writing-ticket-to-work.pdf
- The National Commission on Writing in America's Schools and Colleges. (2005, July). *Writing: A powerful message from state government*. New York: College Entrance Examination Board. Available online from http://www.writingcommission.org/prod_downloads/writingcom/powerful-message-from-state.pdf
- Rogers, L., & Graham, S. (in press). A meta-analysis of single subject design writing intervention research. *Journal of Educational Psychology*.
- Slavin, R., Madden, N., & Karweit, N. (1989). Effective programs for students at risk: Conclusions for practice and policy. In R. Slavin, N. Karweit, & N. Madden (Eds.), *Effective programs for students at risk* (pp. 21–54). Boston: Allyn & Bacon.

About the Author



Steve Graham is the Currey Ingram Professor of Special Education and Literacy in the Peabody College at Vanderbilt University. His research interests include learning disabilities, writing instruction and writing development, and the development of self-regulation. Graham is the editor of *Exceptional Children* and the former editor of *Contemporary Educational Psychology*. He is the co-author of *Handbook of Writing Research*, *Handbook of Learning Disabilities*, *Writing Better*, and *Making the Writing Process Work*. He received an Ed.D. in special education from the University of Kansas. In 2001, Graham was elected a fellow of the International Academy for Research in Learning Disabilities. He is the recipient of career research awards from the Council for Exceptional Children and Special Education Research Interest Group in the American Educational Research Association.



For more information, or for additional copies of this report, contact:

Renaissance Learning
PO Box 8036 • Wisconsin Rapids, WI 54495-8036
(800) 338-4204 • www.renlearn.com