

A PATH TO BETTER WRITING

Evidence-Based Practices in the Classroom

Steve Graham ■ Karen R. Harris

Good writing is not a gift. It is forged by desire, practice, and assistance from others. You can play a central role in this development by teaching writing effectively.

Imagine you are charged with the task of solving a poorly defined problem. The general purpose of the problem is understood, but the solution can take an infinite number of forms, and the criteria for judging the success of any solution is fuzzy. While you may have seen how others solved this or a similar problem, the processes for creating these solutions were mostly hidden and involved the use and orchestration of a variety of different mechanisms, including physical, mental, and emotional apparatuses. To make this problem even more challenging, the solution must be understood by others who are missing vital information, which may or may not unfold as the solution is examined. Sounds like an almost impossible task, doesn't it?

This daunting problem is an apt description for writing. Writers set out to solve a task, such as writing a letter or sending an e-mail to persuade family members they should engage in a specific course of action, like going to a particular theme park over winter vacation. While the writer may initially know some, maybe even all, of the basic points she plans to make in the letter, decisions must be made as to how to express, organize, and elevate chosen ideas so that family members are persuaded that this is a good idea. While she has likely seen other examples of writing meant to persuade, some of which were particularly convincing, it is unlikely she was privy to how these were

created. Even though she may draw on some of these past examples for inspiration, she must create her own unique letter and argument. This requires the use of a variety of motor, cognitive, and affective skills, as she must decide what to say and how to say it; apply keyboarding or handwriting to create a visible representation of her intentions; make multiple judgments about how to frame her intentions into sentences; select just the right words to convey the intended meaning; ensure that words are correctly spelled and sentences are grammatically correct; continually evaluate and possibly revise her emerging message so it is forceful and clear; and rework the message until she views it as persuasive and suitable (Graham & Harris, 2014; Rijlaarsdam et al., 2012). Creating such a document is made even more difficult because the writer cannot fully know all of the inclinations and preferences of each family member, making it hard to know just what needs to be said and how.

This depiction of skilled writing differs appreciably from how young children write. Beginning writers typically convert the task of writing into telling what

Steve Graham is a Warner Professor at Mary Lou Fulton Teachers College, Arizona State University, Tempe, USA; e-mail steve.graham@asu.edu.

Karen R. Harris is a Warner Professor at Mary Lou Fulton Teachers College, Arizona State University, Tempe, USA; e-mail karen.r.harris@asu.edu.

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they know about a topic (Scardamalia & Bereiter, 1986). They create or draw from memory a relevant idea, write it down, and use each preceding idea as the stimulus for the next one (McCutchen, 2006). To illustrate, a young child writing about his favorite color might start by composing “I like the color blue best,” moving to “It is better than yellow,” followed by “Yellow is no fun at all,” and ending with “It is the color of bananas.” With this approach, little effort is devoted to evaluating or reworking ideas, considering the needs of the reader, or organizing the writer’s ideas. The resulting text is a list of topic-related ideas instead of a coherent presentation or examination of the topic.

Bridging the Gap

As these examples have demonstrated, the gap between beginning and skilled writing is tremendous. So, how can you, as an elementary-grade teacher, help your students begin and successfully navigate the path to greater writing competence? The answer is relatively simple: Devote time to the teaching of writing and use this time wisely. This includes using teaching practices with a proven track record for success.

During the last 30 years, scientists have tested a variety of instructional practices to see if they improved the overall writing of elementary-grade students (see Graham, Kiuahara, McKeown, & Harris, 2012). One positive outcome of these intervention studies is that through meta-analysis, we have now identified a variety of instructional

procedures that repeatedly result in better student writing in school settings (Graham, Harris, & Chambers, 2015; Graham, Kiuahara, et al., 2012). This knowledge is augmented by qualitative studies examining what writing instruction looks like in classrooms taught by exceptional literacy teachers (Graham, Harris, & Santangelo, 2015). These teachers apply many of the same instructional practices shown to be effective in the meta-analyses we conducted.

The evidence-based practices identified to date provide you and other teachers with potentially effective tools that can be applied directly in the classroom. The application of such tools does not guarantee success, but their implementation does have an advantage. Other teachers have used these practices in multiple settings, and they have produced demonstrable and replicable improvements in the quality of their students’ writing. Helping students become better writers is not an easy task, and we believe that the use of instructional practices with a proven track record is likely to increase your success in enhancing your students’ writing (Graham, Harris, & Chambers, 2015).

The identification of evidence-based practices in writing also provides you and your colleagues with a set of general principles for teaching writing (Graham, Harris, & Chambers, 2015). Collectively, the findings from the last 30 years of research show that children become better writers by writing and that writing about material read or studied in class facilitates comprehension

and learning. They support the importance of establishing a pleasant and motivating writing environment. They identify procedures you can put into place to support your students’ writing as they compose. They provide direction on what writing processes, skills, and knowledge can be profitably taught. They affirm the value of using 21st-century writing tools.

Drawing on recent syntheses of the writing intervention literature (e.g., Graham, Harris, & Santangelo, 2015; Graham, Kiuahara, et al., 2012; Graham & Hebert, 2011), we use the generalizing principles we have just presented to describe evidence-based practices in writing. To provide a rough estimate of the impact of each of the writing practices presented, we indicate the increase in percentile points evidenced by an average student (50th percentile) when the practice was implemented across research studies.

Evidence-Based Writing Practices

Write

It is commonly assumed that children become better writers by writing. This belief is supported by research showing that students in the elementary grades who are provided with additional time to write every week evidence greater gains in the overall quality of their writing over time when compared with peers who are not given this additional composing time (Graham, Kiuahara, et al., 2012). When students write more frequently, there is a 12 percentile-point jump in writing quality. The positive

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impact of increased writing is not limited to composing, however; it extends to reading as well (Graham, Harris, & Santangelo, 2015). Students who are provided additional writing time evidence a 14 percentile-point jump on measures of reading comprehension.

Despite the positive impact of increased writing time, it is not clear exactly how much time elementary-grade students should spend writing. A recent What Works Clearinghouse Practice Guide (Graham, Bollinger, et al., 2012) recommended that children spend *at least* 30 minutes per day writing. National surveys of writing practices in the elementary grades show this relatively modest goal is not achieved in most schools (Cutler & Graham, 2008; Gilbert & Graham, 2010). The good news is that a relatively modest increase in how much students write—about 45 minutes a week—enhances both their reading and writing performance (Graham, Harris, & Santangelo, 2015).

We think that what students write is also an important ingredient in facilitating young students' writing development. This is a sentiment held by exceptional literacy teachers, too (Graham, Harris, & Santangelo, 2015). Children in these teachers' classrooms not only write frequently but also write for many different and real purposes, including writing to inform, to persuade, and to entertain others.

A caution is in order, though: Writing is a necessary but insufficient condition for enhancing students' journey to greater writing competence (Graham & Harris, 1997). While it is comforting to think that students will learn all they need to know by writing frequently for real purposes, this is simply not the case. Consider, for instance, learning to spell. There is no doubt that students learn new spellings and

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spelling skills as a result of writing (and reading), but the “gains are generally quite modest” (Graham, 2000, p. 244). Likewise, directly teaching spelling enhances spelling competence, resulting in greater gains than incidental methods such as writing frequently, but it is also not powerful enough by itself to account for the spelling proficiency obtained by more mature writers (Graham & Santangelo, 2014). Rather, these two basic approaches work together to promote spelling development.

Write to Comprehend and Learn

One way to extend how much writing your students do is to have them use writing as a tool to facilitate learning of material read or presented in the classroom. This provides multiple opportunities for children to write for a real purpose. For instance, when elementary-grade students are directed to write about material they are reading (versus students who mainly read and reread or study this material), their comprehension of the text read jumps by 24 percentile points, whereas writing about content material presented in class results in a 9 percentile-point jump on measures of learning (Graham, Harris, & Santangelo, 2015).

There are at least four ways that writing can facilitate comprehension and learning. Writing about text or information presented in class forces learners to decide what ideas are most important and, in some instances, promotes thinking about how these ideas are related. Its permanence makes it possible for children to review, reexamine, critique, and even construct new understandings of

these ideas. When students put these ideas into their own written words, it can help them think more carefully about what the ideas mean.

There are a variety of writing activities that can enhance elementary-grade students' comprehension and learning (Graham, Harris, & Santangelo, 2015). These include writing short answers to questions, taking notes, or writing a summary about information read or presented in class. It also includes writing more extended responses to this information, such as explaining how it can be applied, describing how it relates to one's own life, or taking a position relevant to the targeted information and defending it.

Create a Pleasant and Motivating Writing Environment

A central tenet of the popular writers' workshop or process approach to writing (Graves, 1983) is that children's writing is most likely to flourish in a pleasant and motivating writing environment. Limited support for this proposition comes from studies testing the efficacy of the process approach to writing (Graham, Kiuahara, et al., 2012). The quality of writing produced by students receiving this form of instruction jumped 16 percentile points when compared with peers in writing programs that focused mostly on teaching specific skills. However, this advantage cannot be attributed just to creating a pleasant and motivating environment, as the process approach supports developing writers in at least three additional ways: It provides students with extended

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opportunities to write; it creates routines that encourage students to plan, draft, revise, and edit their text; and it offers personalized individual assistance and feedback as well as brief instructional lessons as needed.

More direct support for the importance of creating a pleasant and motivating writing environment comes from the study of exceptional literacy teachers (Graham, Harris, & Santangelo, 2015). They invest considerable energy in building a conducive writing environment. In the following list, we describe a variety of activities these exceptional teachers commonly apply in their classrooms and that you can use to establish a writing environment where your students are likely to flourish.

- Construct a positive classroom atmosphere where students are encouraged to try hard, believe that what they are learning will help them be a better writer, and attribute success to effort.
- Make students’ writing visible by having them share it with others, displaying it on the wall, and publishing it in books, anthologies, or other classroom collections.
- Create a stimulating mood during writing time, making your excitement visible to students and showing them you enjoy writing and teaching it.
- Develop classroom routines, such as sharing writing in progress and completed papers with peers, which promotes positive interactions among students.

- Set high but realistic expectations for students’ writing and encourage them to exceed previous efforts and achievements.
- Adapt writing assignments and instruction so that they align with students’ interests and needs.
- Keep children engaged by involving them in thoughtful activities (e.g., discussing ideas for their papers) versus less thoughtful ones (e.g., completing a worksheet).
- Encourage students to act in a self-regulated fashion, doing as much as they can on their own (e.g., provide a hint on how to spell a word versus spelling it for the student).

Facilitate Students’ Writing as They Compose

For young developing writers, the thinking processes involved in writing are quite challenging (Scardamalia & Bereiter, 1986). This includes setting writing goals, gathering information for writing, organizing the information, evaluating possible writing ideas and what is written, and revising plans and text. When teachers provide children with support in carrying out these processes, the quality of what is written improves (Graham, Kiuahara, et al., 2012). Here, we describe four validated procedures that you can use to support one or more aspects of your students’ writing.

- Provide students with clear and specific goals for what they are to do (28 percentile-point jump in writing quality). This makes

a potentially poorly defined task more specific. For example, instead of telling students to revise their paper to make it better, tell them to add three new ideas when revising it. Similarly, instead of telling students to convince the reader that their opinion about a topic is correct, tell them to provide three or more reasons with facts and evidence to support their point of view.

- Engage students in activities that help them gather and organize possible ideas for writing (21 percentile-point jump in writing quality). This includes procedures such as reading text or accessing the Web to gather information for writing as well as using a semantic web or graphic organizer to record and draw relationships between gathered ideas.
- Ask students to work together as they plan, draft, revise, and edit their papers (31 percentile-point jump in writing quality). The key to the successful application of this approach is to provide students with specific directions for what to do when working together, then teach them how to carry out these procedures. For instance, in one study (Yarrow & Topping, 2010), teachers taught students how to successfully work with a peer during each phase of the writing process using “Help Sheets” to guide what students

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did. “Help Sheets” used prompts or questions to guide what students did, as illustrated here with questions for revision: (1) Is the piece of writing suitable for its purpose and for the reader? (2) Do sentences have capital letters and full stops?

- Provide students with feedback on how they are doing (16 percentile-point jump in writing quality). This includes feedback from teachers about students’ progress in learning to write as well as feedback about what they write. It also includes students giving each other feedback about their writing. For example, in one study (MacArthur, Schwartz, & Graham, 1991), upper elementary-grade students were paired with a peer and were taught how to receive and give feedback. This included indicating what they liked about a composition as well as pointing out places where something written was unclear or more detail was needed.

Teach Critical Skills, Processes, and Knowledge

The description of skilled writing presented at the beginning of this article makes it clear that children must master a variety of writing skills, processes, and knowledge on their journey to greater writing competence. A particularly thorny question for teachers is what, if anything, should be taught directly. The accumulated evidence from the past 30 years provides a partial answer to this question. It is advantageous to directly teach specific writing skills, processes, and knowledge because such instruction improves the overall quality of students’ writing (Graham, Harris, & Santangelo, 2015; Graham, Kihara, et al., 2012). These

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are described next, and we encourage you to make them an integral part of your writing program.

- Teach handwriting, typing, and spelling (21 percentile-point jump in writing quality for students in grades 1–3). Skilled writers rarely think about handwriting, typing, or spelling. These skills are executed with little to no conscious effort. Achieving such mastery is important for developing writers because having to devote attention to these transcription skills can interfere with other writing processes, such as generating ideas, or consume cognitive resources that could be applied to other composing processes like planning text or sentence construction (Graham & Harris, 2014).
- Teach sentence construction skills (21 percentile-point jump in writing quality). Skilled writers invest considerable energy into transforming their ideas into grammatically correct sentences that convey their intended meanings. Upper elementary-grade students’ sentence construction skills can be enhanced by the teacher modeling how to combine two or more smaller sentences into a more complex one, followed by students practicing how to combine similar types of sentences and then applying their newly learned skills in their writing (see Saddler, 2012).
- Teach strategies for planning, drafting, revising, and editing text (35 percentile-point jump in writing quality). Skilled writers employ a variety of strategies to help them carry out and regulate the processes involved in writing. Teachers can directly teach these thinking processes to elementary-grade students by describing them and their purpose, modeling how to apply them, and providing students with guided practice in applying them to their own writing until they can do so effectively and independently (see Harris, Graham, Freidlander, & Laud, 2013).
- Increase children’s knowledge about the basic attributes of specific types of writing (22 percentile-point jump in writing quality). Skilled writers are quite knowledgeable about the characteristics and attributes of the different types of text they write. One way to help children acquire such knowledge is to teach students about the basic building blocks in specific types of writing. For instance, an important element in a story involves the goals of the protagonist. This element can be taught by defining it, reading stories to locate this element, discussing how the author presented and used the element, and asking students to apply a similar approach in their own stories (Fitzgerald & Teasley, 1986).

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Use 21st-Century Writing Tools

Even though digital writing tools are now common in the home and in the workplace, pencil and paper is still the primary medium for writing in most elementary schools (Cutler & Graham, 2008; Gilbert & Graham, 2010). However, 21st-century writing tools have many advantages over writing by hand. Take, for instance, writing via word processing. Text can easily be added, deleted, moved, or rewritten. It is uniformly legible and easy to read. Built-in features such as spell-checkers or even speech synthesis provide the writer with various forms of support. Word processors can be connected to the Internet or other programs, allowing children to gather possible material for their writing and share what they write with others. In fact, elementary-grade students who were provided with word processors evidenced an 18 percentile-point jump in writing quality when compared with students who wrote by hand (Graham, Kihara, et al., 2012).

Of course, word processors are not the only digital tools available for writing. We expect that the available tools will increase dramatically in the near future as a result of new developments in the marketplace and through incentive grants such as the Literacy Courseware Challenge, funded by the Gates Foundation (www.gatesfoundation.org/how-we-work/general-information/grant-opportunities/literary-courseware-challenge-rfp). While

current and future digital writing tools hold great promise, we encourage you to think carefully about how to apply them in your classroom. For instance, the power of word processing is compromised if students' typing is slow or if they are not adequately familiar with how to use its various features (Wolfe, Bolton, Feltovich, & Niday, 1996). Likewise, the use of word processing and other digital writing devices is likely to be limited or applied to only specific writing tasks if you are uncomfortable with the operation and use of these tools.

Concluding Comments and Caveats

The basic idea behind the evidence-based practice movement is that practitioners should apply the best evidence available to make conscious, informed, and judicious decisions (Sackett, Rosenberg, Gray, Haynes, & Richardson, 1996). This does not mean that you should abandon teaching practices that are effective with your students. Rather, the idea is that you contextualize knowledge gained from writing research; integrate it with your own knowledge about your students, the context in which they operate, and your own knowledge about how to teach writing; and develop the best writing program possible.

At the start of this article, we indicated that evidence-based practices in writing should be viewed as potentially effective, and we reiterate that proposition here. Put simply, there is no guarantee that a writing practice

that was effective in a series of research studies will be effective in your classroom. There is never a perfect match between the conditions under which a writing practice was scientifically tested and the conditions present in your classroom. The safest course of action, therefore, is for you to monitor the effects of an evidence-based practice when you apply it in your classroom to make sure that it works in this new situation.

Finally, it should be recognized that the picture of writing instruction drawn in this article is not complete. As we noted previously (Graham, Harris, & Chambers, 2015), our research-based map of how to teach writing is incomplete and lacks precision. For instance, there are many potentially effective writing practices that have never been scientifically tested. Likewise, the accumulated body of writing research provides little insight about how to develop audience awareness, develop a young writer's voice, reduce grammatical miscues in children's text, or teach writing to students who are second language learners or who have disabilities. This does not mean the observations drawn from research are without merit, however. They provide considerable insight about how you can help young writers begin and successfully navigate the path to greater writing competence.

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