Fix

A Strategic Approach to Writing and Revision for Students With Learning Disabilities

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Teaching students in upper elementary school to revise their papers effectively requires a three-pronged approach. First, teachers provide instruction on a relevant genre or writing form (using the Common Core State Standards for English language arts or other relevant standards as a guide). Second, teachers help students to use four basic revising tactics (add, move, delete, and rewrite) in order to make changes to words, phrases and sentences, and longer portions of text. Third, using the FIX strategy, a metacognitive routine, helps students to manage the revising process. FIX uses the self-regulated strategy development (SRSD; Harris, Graham, Mason, & Friedlander, 2008) model of instruction. FIX works by teaching students to identify and solve “big-picture” problems in their writing rather than focusing on minor issues. In prior research, we found that students with and without learning disabilities who learned FIX made meaningful changes that improved their papers (De La Paz & Sherman, 2013). With this strategy, students can learn to effectively revise their essays and stories.

Isaiah, an African American sixth grader who attends a public charter school in the Mid-Atlantic, has a learning disability. His reading is judged as proficient according to an annual high-stakes test; however, he struggles when it comes to writing. His performance on the Test of Written Language (Hammill & Larsen, 1996) indicates problems with conventions, language, spelling, and impoverished ideas. Isaiah’s teacher observes that he enjoys talking about ideas but struggles to organize elements in his writing. When asked to write an essay about “highlights that he would explain to someone who was new to his town,” he writes:

If someone was new to my neighborhood, I would tell them about a park a block away, I would also talk about halloween, many kids come to the house’s on our block around halloween time. when we got hit with a snow storm everyone help clear the streets.

I think my neighborhood is great, it also help the econmy, because my neighborhood has many small busineses around it. In January, everyone on the block wacths the super bowl.

One day later, Isaiah used a red pen to revise his paper. His revisions included three capitalizations: Halloween rather than holloween; When to start the second sentence, and Super. He then inserted in the winter after storm to explain when people shoveled, added s to help, and finally, after two attempts, correctly spelled economy.

Isaiah’s changes are typical of novice writers in many ways. First, his changes improve the quality of his essay but only slightly. Second, his changes are the kind most teachers report seeing: all but one of Isaiah’s changes focus on surface features (e.g., spelling, punctuation, word choice) instead of the overall meaning of his text (Rijlaarsdam, Couzijn, & van den Bergh, 2004). Although there may be many reasons for this, students often lack adequate genre knowledge to make effective global revisions (De La Paz, Swanson, & Graham, 1998). In addition, students may have difficulty recognizing inferred versus explicit information (De La Paz & McCutchen, 2011), being able to identify problems that actually exist (MacArthur, 2007), or realizing what has actually been written (i.e., the existing text) versus what was intended (Graham, 1997).

Research has shown that novice writers make more changes rather than making better changes, and many students’ underlying difficulties in executing basic revising tactics (i.e., add, move, delete, rewrite) interfere with their ability to manage the overall revising process (De La Paz et al., 1998). Further, because young writers focus more on generating relevant content, it...
is difficult for them to monitor their revising (Midgette, Haria, & MacArthur, 2008). In short, novice and struggling writers do not know enough about the revising process to make “big-picture” changes. Therefore, we developed a metacognitive strategy to teach students like Isaiah a more effective approach to revising that emphasizes both reflection and problem solving.

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**FIX: A Metacognitive Strategy for Revising**

Our writing strategy is called FIX (De La Paz & Sherman, 2013). It is based on prior work on effective approaches to revising (e.g., Graham, 1997) and has three steps (see Figure 1) intended to guide students through the revising process: (1) Focus on essay elements, (2) Identify problems, and (3) eXecute changes. Each step in the process is indicated using different color cards and coding: Red indicates that students should “stop” and focus on essay elements, yellow cautions students to consider and identify problems by searching for differences between what they intended to write versus what was actually written, and green prompts students to execute changes in response to specific problems.

**Prerequisite Skills**

Before learning how to revise using the FIX strategy, students need information on important elements of the target genre in order to understand what it means to write a specific type of essay (e.g., expository). To do this, teachers can locate exemplars of the genre for students to read from grade-appropriate textbooks. Student work samples from prior classes or web sites, such as http://www.thewritesource.com, are also helpful resources. For example, the Common Core State Standards for English Language Arts (National Governors Association Center for Best Practices & Council of Chief State School Officers, 2010) suggest that expository essays include a claim, reasons, and a conclusion.

After learning about the elements of the target genre, students can incorporate their knowledge of important elements when applying FIX to make decisions about what is working and what needs to be changed in their papers. Finally, prior to teaching FIX, teachers should ask students to read and revise an essay as a preassessment. This assessment can serve as a baseline as well as highlight specific areas that need to be targeted during instruction.

**Isaiah and his fellow students began writing expository essays the year before learning FIX; however, when given a prompt, most students wrote a single paragraph that was no more than four to five sentences in length. Isaiah wrote two paragraphs, each containing only two sentences. After reviewing students’ preassessment prompts, Isaiah’s teacher introduced FIX as a powerful way to revise expository essays.**

**SRSD**

Students should learn about revising as part of an overall writing program—one that provides students with extended time to write for authentic purposes. When teaching Isaiah and his peers FIX, we used SRSD (Harris et al., 2008). SRSD is similar to other models for teaching writing in that students learn specific steps to accomplish writing tasks as teachers scaffold students’ learning. However, with SRSD, teachers focus more on helping students self-regulate their use of the writing strategy. Self-regulated procedures include goal setting, self-instruction, and self-monitoring. There are six instructional stages in the SRSD instructional framework (Harris et al., 2008), and teachers can reorder, combine, modify, or reteach them as needed. The six stages of instruction as they relate to FIX are as follows:

- **Stage 1: Discuss it.** Teachers provide an overview of FIX, explain what it means to make meaningful changes, and give a rationale for each step of the strategy.
- **Stage 2: Develop background knowledge.** Teach students four basic tactics (add, move, delete, and rewrite) to revise parts of their essays.
- **Stage 3: Model it.** Teachers demonstrate how to manage the revising process by thinking aloud and using self-regulatory statements while using FIX.
- **Stage 4: Memorize it.** Students learn the meaning of the mnemonic and its parts.
- **Stage 5: Support it.** Teachers help the class and then small groups collaboratively revise several essays.
- **Stage 6: Independent performance.** Teachers systematically fade instructional supports—as students work to criterion—and teach for generalization.

**Teaching FIX Using SRSD**

**Stage 1: Discuss the revising strategy.** During this stage, provide a general overview of the steps in FIX and introduce the concept of making meaningful changes. Although this concept is developed throughout instruction, it is during this stage that teachers explain that meaningful changes improve text, whereas making edits only corrects for spelling, punctuation, and other surface elements. To illustrate, a meaningful change for because they didn’t take it the right way and won’t be your friend anymore could come from deleting won’t be your friend anymore. Teachers explain that students will use self-statements to manage the revising process. Self-statements focus on the big picture, such as “What do I do first?” and “I need to make five meaningful changes and make sure my essay includes all of the elements.” Setting content and audience awareness goals such as these have been shown to improve students’ revising (Midgette et al., 2008).
Stage 2: Develop background knowledge. When teaching FIX, it is important to develop students’ knowledge and skills related to the four basic tactics for revision (add, move, delete, rewrite). Fitzgerald and Markham (1987) developed an “I do, we do, you do” teaching sequence for teaching basic revision: (a) Teachers model a single revising tactic (e.g., add) in a sample essay, (b) teachers and students collaboratively revise a new essay using the same tactic, and (c) students then apply what they learned to revising their own essay with assistance. We suggest that teachers introduce each revising tactic before modeling the steps in FIX and monitor how students use each during collaborative and independent practice (see Figure 2 for a sample calendar).

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During Stage 2, Isaiah’s teacher demonstrates how to add information to a sample essay and then asks students to brainstorm ideas that could be added to a new essay in a mini-lesson. The students then have the opportunity to apply the skill of adding information independently to their own writing. Two days later, their teacher shares a different essay on a new topic. The class recognizes that its ideas are not well organized, so the teacher revises the essay by demonstrating how to move two parts. Then, the class collaboratively decides on phrases and sentences that should be moved in a fourth essay. Again, the students independently practice moving parts within their essays. The next week, the teacher shares a paper that contains extraneous ideas. The teacher models how to identify and delete material that does not belong or is redundant. As before, after sharing how to delete ideas on a sample essay, students work as a class to delete irrelevant material and then work independently practicing the skill of deleting material. Finally, the
Stage 3: Model how to use the revising strategy. During Stage 3, teachers model the FIX strategy. To model the strategy, teachers begin by sharing or displaying a sample essay, reading it aloud, and following self-statements on each set of colored cards (see Figure 1). For example, “ask yourself big-idea questions from the red cards and make changes” (e.g., add reasons if there are not enough reasons to support the point). Then, “ask yourself questions from the yellow cards,” highlighting where specific sentences are not clear, and delete or rewrite specific text to make meaningful changes. Finally, “move on to the green card” and remind students of the four tactics for revision. Teachers can demonstrate the recursive nature of revising more generally by deciding to rewrite a claim that no longer encompasses parts that have been added during earlier revisions. New problems may arise after modeling how to execute changes. For example, after deleting an irrelevant idea, the teacher may realize and tell students that new reasons are needed to have a well-developed essay. When modeling making revisions, teachers should use self-statements, such as “This paragraph introduces my first reason and supports my main idea, but I am going to rewrite it to make it more interesting to my reader.”

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When modeling the strategy, Isaiah’s teacher begins by stating, “The first step in FIX is to focus on essay elements,” then he reviews each red card in turn (see Figure 3; comments related to the red card are written in red on the essay). The teachers asks and answers the first two questions on the red card: “Does my statement [claim] answer the prompt? Yes! Do I have enough support? Yes! I have three [supporting ideas]!” He then asks, “Do I have enough examples? I need more details!” then adds, “I can read without listening to my sister and her friends run around making noise.” He ends Stage 1 with a reflection about his conclusion: “Does my conclusion sum up my ideas? My conclusion does not sum up my ideas—it seems like I repeated my statements, [so I will rewrite and] write more! Then he adds several ideas to “the library is great . . . .”

When beginning Stage 2 of FIX, he models how to identify problems, using the questions on the yellow card and highlighting problematic sentences. He reminds students that there are four ways to make changes, referring to the green cards for guidance. He begins by saying, “Now I need to identify less obvious problems—I am going to go through each statement on my yellow cards and use my highlighter when I come across phrases and sentences that need to be changed.” During this step, he looks at each question from the yellow card (see Figure 3) and begins Stage 3 of FIX by executing changes (add, move, delete, rewrite) in response to each problem. He uses “+” to indicate where he plans to add text and writes “Out of all my favorite places” to show the actual text that is going to be added.

Throughout Stages 2 and 3, he asks, “Did I execute changes to make my paper better?” and models coping and self-reinforcement by saying, “This isn’t hard, I can do this” and “I like this change; my essay is better than before.” He then rereads his essay, modeling how to check that changes to his essay made sense. Last, Isaiah’s teacher corrects a spelling and a punctuation error before finishing for the day, explaining that editing was done after revising.
Revising is a highly individualized process (no two revisions look the same) and is messy to describe. Figure 4 shows the essay Isaiah’s teacher revised. Although other changes could have been made to make the essay even stronger, he ended the lesson at this point believing that further changes would have been hard for students to follow and above their skill level. It is important for teachers to know that before modeling, they should plan what to say and do so that they can comfortably demonstrate the steps and self-regulation procedures in FIX in front of students.

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Stage 4: Memorize it. In this stage, teachers ask students to commit to learning the meaning of FIX, its steps, and the metacognitive statements that are most helpful for each individual. Memorization can be encouraged by using short, rapid-fire drills in game-like exercises. Allow students to paraphrase strategy steps as long as the meaning of the red, yellow, and green cards remains intact. Asking students to memorize at least one self-instruction (choosing goal setting, self-monitoring, or managing the strategy) when using the strategy helps students adapt self-statements to meet their individual needs.

During Stage 4, Isaiah’s teacher quizzes students about the strategy steps and self-regulatory statements for 5 to 10 minutes once or twice a week until most students can remember the mnemonic. He reviews each of the strategy steps on flash cards a few times during instructional breaks, such as when students are lining up to leave the classroom. He also awards students stickers on the classroom chart when they identify the difference between meaningful and nonmeaningful changes in sentences or for memorizing questions on the yellow cards. Finally, he asks some students to write down personal self-statements on the top of their papers when revising and gives others a list of self-statements to choose from when using the strategy during independent practice.

Stage 5: Support it. During this stage, students work as a class and then in small groups, receiving assistance from the teacher in making decisions on how to apply the revising strategy. Teachers may ask students to use FIX, self-statements, and self-regulation processes to revise pretest essays so that they can focus on revising rather than the entire writing process.

Although one goal of this stage is to allow students more responsibility in using FIX, it is important to realize that when beginning this stage, there are several key times to interact with students. For example, before students revise a paper together, teachers should encourage them to choose appropriate self-statements to regulate strategy use and the writing task. Second, it is helpful to circulate among students’ desks as they work in order to give advice and feedback to students about the quality of their revisions. Students often need help identifying problems and executing changes that improve the overall quality of their text. Further, students may need help learning which self-question is relevant for a given problematic sentence (e.g., “Am I getting away from the main point?”) or deciding which editing task on the green card should be used.

Finally, during Stage 5, as students are developing skill in implementing FIX, requiring students to set a goal to make a reasonable number of meaningful changes (e.g., five) when revising helps ensure students’ active engagement early on. Self-regulation procedures, such as goal setting and self-monitoring, should be adapted to meet the needs of individual students. For example, a student who consistently writes run-on sentences might set a goal to listen to the pauses in voice when rereading aloud. Other students might chart the number of meaningful changes in their essays. We suggest teachers end this stage when
students express an interest in independently revising their essays.

During this stage of instruction, Isaiah works with a friend to revise one of his essays, and then a week later they both help revise a friend’s paper. To help them learn to identify sentence-level errors, their teacher asks all students to read their papers carefully and to visualize information to decide whether information in their papers matched what had been intended. Their teacher reinforces basic understanding of essay elements during warm-ups by asking them to look at sample essays and decide whether elements are missing or need improvement. On other days, he shares sentence pairs on the overhead and asks students to pair-share and decide whether the first and second sentence mean the same thing or if one sentence in the pair differs in meaning from the other.
Stage 6: Independent performance. The goal for this stage is for students to revise their work independently. Ask students to use the strategy and self-regulation procedures on their own, but allow them to ask questions (and monitor their progress) as they work. After students make meaningful changes independently, they may be encouraged to use the strategy without using the colored cards. In our work, we established the following criterion for ending independent practice: Students needed to (a) recall the strategy; (b) use the strategy twice without relying on red, yellow, or green cards; (c) generate essays that included all the elements of an expository essay; and (d) make at least five meaningful changes.

During Stage 6, Isaiah puts his colored cards face down under his essay as he revises his essay. His teacher has suggested that each child write down and cross out the letters F, I, and X while working through each step of the strategy. That way, he can monitor their progress without asking them to stop working. Later, after students finish revising, they exchange essays with a partner and chart the number of meaningful changes in their papers. A few days later, students are told they have three “lifelines” to use when revising. Their teacher tells each time a student asks for assistance to encourage them to work as independently as possible, asking questions only when they really need his help.

After instruction, Isaiah included more information in his essay, rewrote one sentence, and added meaningful text after instruction ended (see Figure 5). He made more meaningful changes and also made minor edits. These revisions revealed close attention to the flow of his ideas and improved his overall writing. It is possible that Isaiah may have run out of time in making meaningful changes because he had only one class period to revise during our research study. Therefore, although Isaiah still had room to improve his writing, his revised essay demonstrated an improved understanding of the revising process and a better expository essay. He continued to independently revise his writing 1 month later, demonstrating that the revising lessons had a lasting impact on his writing.

After students have learned to apply FIX using one genre, other genres can be introduced. For example, the next unit may focus on story structure elements (e.g., setting, characters, beginning and ending actions, and emotion). Encourage students to use questions such as “Have I developed my character over the course of the story? Is my setting (place and time) well developed? Is my plot interesting? What does my main character do? Does my plot include a logical sequence of events? Does my story reveal my characters’ emotions? Is there a climax to my story? Do leading events build tension? Does my story have a good ending (resolution)?” Questions can be modified in order to be grade-level appropriate.

**FIX and English Language Learners**

In our research study, about half of our participants were learning English as a second language and half were students with learning disabilities (some students were identified as having learning disabilities and were also English learners). We found that English learners benefited from explicit instruction on the use of vocabulary, grammar, syntax, or writing conventions in addition to using FIX as outlined here. For example, students who used the same word over and over again in their writing (whether due to lack of vocabulary or problems with word retrieval) added self-questions on their yellow cards to identify whether or not they were using a word repeatedly. Modifications like these were added to FIX and were suggested in conjunction with instruction that helped students develop their academic vocabulary (Graves, Valles, & Rueda, 2000).

**Conclusion**

Teaching students to master FIX requires a series of lessons over time with active monitoring of student learning. We believe that successful revision requires writers to focus on both big-picture and surface-level problems. At the end of our project, one teacher said, “This procedure made revising easier for my students. . . . I think they became better [writers] overall because they learned a process to check and reread their work.” Teaching revising strategies with SRSD has been shown to be an effective approach to instruction (Saddler & Graham, 2005). FIX is a powerful way for students to revise because it directs them to coordinate a series of concrete actions during revising and can be flexibly used as part of an overall writing program.

**References**


National Governors Association Center for Best Practices & Council of Chief State


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