Learning Disabilities Research & Practice, *28*(3), 129–141

Learning Disabilities Research & Practice

Revising Strategy Instruction in Inclusive Settings: Effects for English Learners and Novice Writers

Susan De La Paz
University of Maryland
Cindy K. Sherman
University of Maryland

Twenty-three students with varying academic and linguistic profiles were taught a strategy for revising expository essays, using the Self-Regulated Strategy Development model for instruction. Students learned basic revising tactics and to consider text structure as they managed decisions on how to improve their essays. Instructional effects were assessed using a multiple baseline with multiple probes in baseline design. Positive results were found for English learners, including those who were identified as having learning disabilities, or who were low-, average- and high-achieving writers; moreover, results were equally positive for students who were not English learners. After instruction and 4 weeks later, students revised more, produced more revisions that improved text, and revised longer text segments, which resulted in an improvement in overall quality.

Skilled revision involves critically reading one's writing and comparing it to a representation of intended text, noting discrepancies, and making changes so the existing text becomes more in line with the ideal text (Graham, 2006). Studies describing the revising behavior of proficient writers provide evidence that they place substantial emphasis on the text as a whole, simultaneously considering rhetorical purposes while developing and organizing the overall text (Hayes, 2004). In contrast, an enduring complaint about students from grade school to college is that they focus more narrowly on revision, typically confining their efforts to changing surface features of the text (e.g., spelling, punctuation, and word choice), rather than attending to the overall meaning (c.f., Rijlaarsdam, Couzijn, & van den Bergh, 2004).

Several processes underlying effective revision can be problematic for novice and struggling writers, the first being the representation of the intended text. Because emerging writers do not plan before composing, they have fewer specified intentions, and their memory representations of intended text are often vague (McCutchen, 2006). Second, writers may read their intended meanings into the text and fail to see problems that actually exist (MacArthur, 2007), perhaps because young writers are less able to distinguish inferred from explicit text information (De La Paz & McCutchen, 2011). However, instruction aimed at increasing children's understanding that revising includes recognizing mismatches between what was intended and what is actually written has resulted in improvements in revising skill.

Almost three decades ago, Scardamalia and Bereiter (1983) attempted to address this issue by developing a procedural routine (i.e., suggesting a set of actions) that established a systematic process for students to use when revising. They developed three sets of explicit cues to help students consider one element of revising at a time (prompting students to first compare portions of the written text with an intended meaning) then to evaluate its quality (by providing students with a series of questions such as "this doesn't sound right") for each section of text. Students then were asked to determine the source of each problem for each portion of text, and finally, to decide what to do about the error by choosing to use one of a series of suggestions (e.g., "say more") to improve their work.

Results from this early work indicated that students made more revisions, and that their revisions improved sections of their essays. However, the approach did not improve the overall quality of their writing (Scardamalia and Bereiter, 1983). In subsequent research, Graham (1997) found similar benefits for fifth- and sixth-grade students with learning disabilities (LD), although the same limitations in overall improvement were noted. These results prompted De La Paz, Swanson, and Graham (1998) to modify Scardamalia and Bereiter's revising process even more by prompting students to consider both global and local concerns as students evaluated their writing. In their study, eighth graders with LD examined their papers twice—and the overall quality of their papers improved. Unfortunately, the eighth-grade participants with LD were limited in their ability to execute separate revising elements (e.g., add, delete, move, and rewrite), resulting in papers that needed further improvement. This suggests that students did not know enough about how to engage in basic revising tactics, even if they knew where text was problematic.

There may be still other contributing factors influencing ineffective revising, beyond the need for instruction in basic revising elements. Novice and struggling writers may lack adequate genre knowledge to make effective global revisions. In De La Paz et al.'s (1998) study, students were told to consider whether their papers ignored potential opposing ideas,

Requests for reprints should be sent to Susan De La Paz, University of Maryland. Electronic inquiries should be sent to sdelapaz@umd.edu.

contained too few ideas, or had ideas that were not relevant or out of sequence; however, the design of the study did not establish whether students knew enough about the demands in writing expository essays before they attempted to revise them. In fact, more recent results from Midgette, Haria, and MacArthur (2008) indicate benefits in prompting students to consider content or genre goals (e.g., including basic essay elements) while revising.

Finally, students in prior research studies involving procedural revising routines may not have resulted in overall writing improvements because the instruction may not have been sufficient for students to master the metacognitive routine. It is possible that a cognitive apprenticeship model such as the approach developed by Harris and Graham (1999), referred to as the Self-Regulated Strategy Development model (SRSD), may be necessary to promote meaningful improvements, and this approach to instruction has a strong evidence base for teaching novice and struggling writers (c.f., Rogers & Graham, 2008). Past SRSD studies have established its effectiveness as a means to teach revising (e.g., Graham & MacArthur, 1988; MacArthur & Graham, 1987; Midgette et al., 2008) but more research is needed to help students to independently revise their text.

Moreover, although the utility of the SRSD model has been shown in many contexts and with many types of learners, there is a paucity of research on its utility for students who are English learners (EL). In fact, although cognitive apprenticeship studies on writing have included students who are EL (Monroe & Troia, 2006; Wong et al., 1994); studies on EL students' writing outcomes have employed other approaches favoring vocabulary instruction (Mancilla-Martinez, 2010) and global programs such as the Sheltered Instruction Observation Protocol (SIOP) model of instruction (Echevarria, Short, & Powers, 2006). The SIOP model is a framework for teaching curricular concepts via strategies and techniques that make content comprehensible to students and includes writing as one of many learning activities. This approach appears to hold promise, as initial results (see Echevarria et al., 2006) show some promise for the SIOP model when EL students' writing is evaluated.

Although none of these studies applied the SRSD model of instruction with EL students, we believe that it will benefit this group of students as they learn to revise their writing because more general forms of strategy instruction have been beneficial with EL writers. SRSD also establishes background knowledge, provides explicit modeling, and gives students opportunities to actively practice what they are learning, features that are recommended for students who are learning English (Coleman & Goldenberg, 2010). Finally, Spycher (2007) demonstrated that explicit teacher modeling and explanation, collaborative revisions, and independent practice all helped EL writers learn differences between everyday and more academic forms of language, resulting in an increased ability to use more sophisticated linguistic constructions.

THE CURRENT STUDY

This study was designed to give academically and linguistically diverse students information about basic revising elements, genre, and was intended to help them learn how to organize and manage the revising process. We developed a revising strategy to meet these combined needs, using the SRSD approach to instruction. The first step of our strategy prompted students to include essential parts of expository essays: a premise, at least three reasons, and a conclusion. Students also learned to evaluate the quality of each element before trying to identify specific problems in their papers. Third, we provided students with instruction on four basic revising tactics (add, move, delete, and rewrite) before they began to make decisions about their coordination and execution. Teachers and students collaboratively revised sample expository papers, and then students independently applied the same revising tactic before learning how to manage and coordinate the entire revising process.

In sum, we sought to extend previous research on strategy instruction and revision with students with diverse academic and linguistic profiles in general education settings. Our goal was to determine the effects of a novel revising strategy taught using the SRSD model of instruction with students who were identified as EL, as well as students who were identified as having LD, or who were low-, average-, and high-achieving writers. We expected that the revising strategy instruction would benefit sixth-grade EL students with LD as well as low-, average-, and high-achieving writers who were considered EL to the same degree as writers who were not learning English with respect to their ability to generate more meaningful changes when revising, to make more revisions that improve text, and that these improvements would result in qualitatively better expository essays.

METHOD

Setting

The study took place in a public charter elementary school in an urban district in the mid-Atlantic. Students at this school were taught using a dual language approach (English and French or English and Spanish); thus, all students were expected to learn using a language other than English. Approximately 50 percent of students in the school spoke a language other than English in the home. The majority of students from this school were from low-income families (84 percent). The school had 320 students; 47 percent were African American, 44 percent were Hispanic, 9 percent were White, and 1 percent was Asian American. Eleven percent of the students (including some students who were EL) received special education services.

Two sixth-grade teachers (Bruce and Khazin, not their real names) with 5–6 years teaching experience agreed to participate in this study. As part of the school's team-teaching model, Bruce and Khazin shared instructional responsibilities with coteachers who taught content area subjects in Spanish and French, respectively. The intervention in this project was taught during students' language arts class, and focused on improving their written English compositions. The coteachers were not part of the study.

The school provided educational services for students who were EL and for students with LD through an inclusion model. Learning specialists offered support to EL

students who were new to the school or to students with limited academic English (e.g., in listening, speaking, reading, and writing). This support was offered in the general education classroom or in a separate setting, whichever model was judged to help students meet individual academic goals that teachers established for each content area. Students with disabilities typically received all instruction in an inclusive setting from special education teachers who provided assistance in the classroom by clarifying directions, reexplaining concepts, and modifying assignments.

According to district requirements, Bruce and Khazin provided a standards-based curriculum for language arts for all students. Grammar, vocabulary, spelling, and composition were taught as distinct skills as well as within the context of a Writer's Workshop. Teachers taught writing every day, whether through students responding to open-ended questions, writing a journal entry, or working on research papers. Teachers routinely provided outlines, webs, and graphic organizers to help scaffold and guide their students through the writing process.

Participants

There were 36 sixth-grade students at the participating charter school whose parents gave consent and who assented to participate in the research study. Each student was randomly assigned to one of three classrooms based on initial writing ability (low, average, or above average) and disability status. We analyzed work from a representative, randomly selected subset of 23 students (six students from each writing strata plus all students with LD; Table 1 provides student characteristics). Eleven of the participants were boys and 12 were girls; in addition, half of the participants were EL (10 participants spoke Spanish as their first language and two participants were native French speakers). The sample was culturally diverse, 56.5 percent African American and 43.5 percent Hispanic, and 78 percent of participants received free or reduced lunch.

The Spontaneous Writing subtest from the Test of Written Language (TOWL-3; Hammill, & Larsen, 1996) was used to measure students' writing ability. Students were considered as low-achieving writers if their scores were one standard deviation below the mean (70–85). Students whose scores ranged from 86 to 115 were considered average-achieving writers, and students with standard scores above the average range (116–130) were considered high-achieving writers. We verified that the students with LD were (a) identified by the school district in accordance with the federal guidelines, (b) had a verbal IQ score between 85 and 125 on an individually administered norm-referenced intelligence test within the past 5 years, (c) scored at least one standard deviation below average in writing on the TOWL-3, and (d) absent of other handicapping conditions. Three of the students with LD were considered EL. The teachers also reported that all students with LD had writing IEP goals.

We randomly assigned EL students to classrooms based on information from the TOWL3 rather than referring to their status as EL. We did so because the school no longer provided second-language learning services for almost half of the students even though their proficiency levels were based on oral rather than written competency in English. To illustrate, students' reported English proficiency ranged from "knows and uses social English and some specific academic language skills with visual and graphic support" to "knows and uses social English and academic language working with modified grade level material." Thus, the designations did not indicate proficiency in written English in academic contexts and because the school did not apply the scale consistently (e.g., one student earned a score higher than the scale allowed).

According to the school district's comprehensive standardized yearly reading assessment, 43 percent of the

TABLE 1
Characteristics of Participants by Teacher

	Khazin	*Bruce*	*Cindy*
Students with LD			
English learners ($n = 3$)			
Number	1	1	1
First language	Spanish	Spanish	Spanish
TOWL-3	79	79	70
English proficiency 4.2	3.9	3.7	
Reading proficiency	Basic	Basic	Basic
Non-English learners ($n = 2$)			
Number	1	1	0
TOWL-3	83	83	–
Reading proficiency	Basic	Proficient	–
Low-achieving writers			
English learners ($n = 5$)			
Number	1	2	2
First language	French	Spanish	Spanish
TOWL-3[a]	79	83	80
English proficiency	5.9[a]	4.2	3.9, 5.9[a]
Reading proficiency	Proficient	Basic	Basic
Non-English learners ($n = 1$)			
Number	1	0	0
TOWL-3[a]	79	–	–
Reading proficiency	Advanced	–	–
Average-achieving writers			
English learners ($n = 3$)			
Number	1	2	0
First language	French	Spanish	–
TOWL-3[a]	98	96	–
English proficiency	4.9	5.1[a], 6.0[a]	–
Reading proficiency	Proficient,	Basic, Proficient	–
Non-English learners ($n = 3$)	Advanced		
Number	1	0	2
TOWL-3	91	–	98, 100
Reading proficiency	Advanced	–	Pro, Pro
High-achieving writers			
English learners ($n = 1$)			
Number	0	0	1
First language	NA	NA	Spanish
TOWL-3	NA	NA	119
English proficiency	NA	NA	> 5[b]
Reading proficiency	NA	NA	Advanced
Non-English learners ($n = 5$)			
Number	2	2	1
TOWL-3	119, 117	115, 115	119
Reading proficiency	Pro, Adv	Pro, Basic	Advanced

Note. [a]TOWL-3 corresponds to *Test of written language*, third edition. [b]No longer receiving English language services.

participants read at a basic reading proficiency level, 35 percent were proficient readers, and 22 percent were advanced readers. Half of the EL students read at the basic proficiency level (including the three students with LD), two were proficient readers (one low-achieving and one average-achieving writer; 17 percent), and two students (17 percent) were advanced readers (one average writer and one high-achieving writer).

Design

The effects of teaching the revising strategy were assessed using a multiple-probe design across classrooms with multiple probes in baseline. The two teachers divided their language arts classes into three groups to allow three replications of the writing intervention. Each teacher taught one group of students in his classroom and the second author taught a third group of students in a separate classroom. We used average scores from pairs of students to increase the stability of data when making decisions about changes in phases; thus, we randomly selected two students at each writing level to function as pairs. Each pair was randomly assigned to one classroom, with one exception. Only one student with LD was available for the third classroom. Students in the first classroom began instruction after a stable baseline was established for all target students in number of meaningful changes. Instruction began for students in the second classroom after students in the first classroom received their second postinstruction prompt. Identical procedures were used when beginning and ending instruction for students in the third classroom.

The primary variable of interest was the number of meaningful changes students made when revising. Meaningful changes were defined as changes that were attempted to improve the quality of their text. Revisions made by each pair were averaged, graphed, and used for analysis. Intervention ended when all students in a classroom reached mastery level. Three new prompts were administered within 1 week after instruction ended. A maintenance essay probe was given 4 weeks after instruction ended, under identical conditions.

General Procedures

Materials

We chose expository essays as the genre for this study because it met the school district's language arts goals. Students were required to write a research paper during the year; therefore, teaching them strategies for writing and revising expository essays could support this year-long assignment. Before the study began, teachers examined 37 expository essay prompts and recommended 12 prompts as appropriate and of interest to their sixth graders, for baseline, postinstruction, and maintenance. The prompts were randomly ordered and preassigned for each essay probe. Examples include "Suggest one change that you think can make this country better" and "Explain the main reason why you think students drop out of school."

Writing Probes

All probes were given the same way. Teachers provided students with lined paper and a copy of the prompt, read it aloud, and gave students 45 minutes to write a response using the following directions. "Read the prompt and write an expository essay. A well-written essay usually has an introduction, provides an explanation, and ends with a conclusion. Use paragraphs to help you organize your essay. Pay attention to the prompt and write the best essay you can." During the next class period, students received their essays and were told to revise them using a red pen. Teachers provided the following directions. "Remember what you know about revising. Read your draft carefully and make the necessary changes to make your essay better. Use the red pen when making changes. Do not scribble anything out. Instead, mark a line through anything you want to change." No assistance was given in understanding the prompts, or providing spelling or grammatical information. Feedback was not provided to students about the content or quality of their papers.

INSTRUCTIONAL PROCEDURES

Students were taught a specific strategy for revising expository essays. During the study, students received 45 minutes of strategy instruction, three times a week for 4 weeks. EL and monolingual students participated in the same instruction. Students who were identified as LD who were also learning English received support from teachers in special education and from the language resource teachers. However, EL students who were low, average, or above average writers appeared to respond to the revising instruction as well as their native English speaking peers at the same writing achievement level and did not receive additional supports.

Each SRSD instructional component was successively introduced to students in 1 or more days (we identify each stage as it was introduced). On the first day, teachers provided students with an overview about the purpose and description of the revising strategy. Teachers *developed students' background knowledge* by ensuring that the genre of focus was familiar to students, and by teaching students what it meant to revise their writing. We believed that the latter was especially important to establish for students to be able to incorporate these skills within a metacognitive routine on revision, based on reports by Graham (1997) and De La Paz et al. (1998) that learning to coordinate decisions in revising did not address students' underlying difficulties in revising.

Thus, we began by defining characteristics and purposes of expository essays and analyzing a sample of expository writing. This included text structure information, four purposes for writing expository essays, and defining functional essay elements (premise reasons, conclusion, and elaboration). Teachers then described how to make "meaningful changes" when revising, and established self-monitoring and self-reinforcing procedures to attain that goal.

Four subsequent lessons provided students with information on revising elements. The lessons were designed to teach students how to make meaningful changes using the "add," "move," "delete," and "rewrite" revising tactics from

Fitzgerald and Markham (1987). Teachers taught students how to make meaningful changes using sample essays, and then students tried to make the same type of meaningful changes to new essays. In the first lesson, teachers modeled how to add meaningful information to a sample paper. Teachers then gave students a different paragraph using the same prompt and asked the students to each make one or more meaningful changes by adding content to that paper. Remaining lessons were used to model one revising tactic per lesson, with teachers explaining how the change changed the overall meaning of the text. Students applied each revising tactic in a sample paper on the daily topic, practicing its use.

The second component of the SRSD instructional sequence required teachers to *discuss the revising strategy* (See Appendix A). Teachers introduced the mnemonic FIX and the revising strategy that would guide students through the revision phase of writing. Teachers explained the steps that made up the FIX strategy: (1) Focus on essay elements; (2) Identify problems; and (3) Execute changes. The significance and benefits of the revising strategy were discussed with students. Teachers explained that as part of the revising process, students would revise their essays with the help of colored cards that would remind them to (a) examine their draft, focusing specifically on the essential elements or parts of an essay, (b) identify problems in their essay between what they wanted to write versus what was actually written, and (c) act on, or execute necessary changes to the draft in response to specific problems they had identified.

Teachers distributed red, yellow, and green cards, as well as yellow highlighters, to each student. The red cards contained self-statements that helped students focus on essay elements. The yellow cards contained self-statements that helped students identify problems and highlighters were used with the yellow cards to note problems. Finally, the green cards listed the four options students had to execute changes during the revision process. Teachers then explained to students how to use self-statements whenever possible (e.g., "What do I do first? The first step in FIX is to focus on the essay elements. So I ask myself, does this essay have a premise? Does it answer the prompt? Do I have enough reasons? Did I elaborate throughout my essay? Does my essay have a conclusion? Now I need to identify all the problems. Did I execute all possible changes? After making a change, I might say, I like this change. My essay is better than before").

Teachers then *modeled* how to use the FIX strategy. They presented a sample essay to the students, read the essay aloud, and applied self-statements from the red card with essay elements. Then, teachers modeled how to identify problems while using the self-statements on each yellow card. Teachers modeled self-statements (e.g., "I need to look for places where things don't sound right.") and highlighted sentences they perceived as having a problem and reminded students of four ways to make changes, referring to the green cards for guidance. Throughout modeling, the recursive nature of writing and revising was addressed. For example, revisions could be made to the premise after identifying problems with reasons or elaborations. Similarly, problems could be identified while writing and executing changes. Teachers managed the revising strategy and the writing process through self-statements that regulated use of the strategy (e.g., "This paragraph introduces my first reason and supports my main idea, but I am going to rewrite it here to make it more interesting"). Teachers also modeled coping and self-reinforcement claims (e.g., "This isn't so hard, I can do this." "I like this change; my essay is better than before") and made sure that changes to their essay made sense. Teachers ended with spelling, grammar, capitalization, and punctuation changes, taking care to explain why editing is done after revising strategy.

Modeling was followed by *collaborative practice*. Teachers guided students through each step of the revision strategy, prompting students only when necessary. Teachers solicited students' ideas when using the yellow cards and encouraged students to choose self-statements that would help them to regulate strategy use, the writing task, or engage in appropriate behavior. Teachers reviewed students' revisions and collaborated on decisions regarding problems that were missed. Teachers highlighted the problem, explained which self-statement was relevant (e.g., my reader needs more information), and asked students to attempt meaningful changes.

Students were then asked to *memorize* the steps in the revising strategy and the meaning of the mnemonic FIX. Teachers reviewed the revising strategy with students and asked the students to recite the meaning of the mnemonic as well as the metacognitive statements that were used when executing the revising strategy. Once the strategy was memorized, students were allowed to paraphrase the questions and statements that prompted them to consider text structure and potential problems with text as long as the meaning of the red and yellow cards remained intact. Students were also asked to memorize at least one self-instruction (choosing goal setting, self-monitoring, or managing the strategy) when using the strategy.

To *support the strategy* and scaffold strategy use, teachers provided students with a new essay and asked them to revise it in pairs and small groups. In subsequent sessions, students used the revision strategy, self-statements, and self-regulation processes to make changes to their pretest essays. Since most students averaged only one change at pretest, they were asked to set a goal to make at least five meaningful changes when revising. Other self-regulation procedures, such as setting goals and self-reinforcements were introduced and adapted to meet the needs of individual students. For example, a student who consistently wrote run-on sentences set a goal to listen to the pauses in his voice when rereading and revising. Another student used a chart to help him keep track of all meaningful changes. Support from teachers and strategy cards were faded after four sessions as students used the strategy and self-statements with minimal assistance.

During the final two sessions, students were asked to use the revising strategy and self-regulation procedures *independently*. Plans for maintenance and generalization were executed. These included: (a) identifying opportunities to use the revising strategy with other genres (such as when students wrote research papers), (b) examining how to modify the revising strategy for other genres, and (c) setting goals to use the revising strategy with new writing tasks. Instruction ended when students were able to (a) recall the strategy, (b) use the strategy twice without relying on red, yellow, or green cue cards, (c) generate essays that included all the

characteristics of an expository essay, and (d) make at least five meaningful changes.

TREATMENT FIDELITY

To ensure that instruction was delivered as planned, Bruce and Khazin participated in a 2-day training before the study began and were given all lesson plans, checklists, and materials. In addition, teachers reviewed upcoming lessons during the study on a weekly basis. The second author observed them on days when they introduced the strategy, modeled instruction, and provided guided instruction, and used a checklist to document completion of strategy steps. All other instructional sessions were audio recorded, and after the study ended, a graduate student unfamiliar with the design of the study listened to a random sample of 25 percent of the tapes and documented fidelity of treatment for each of the teachers, including the second author. On average, 97 percent of the steps were completed across the three classrooms (91–100 percent). Most changes were in adding to or modifying the way in which concepts were presented during instruction, such as by personalizing the self-statements when demonstrating the strategy, or by using explanations that while different from the lesson plan, were appropriate for their students.

SCORING PROCEDURES

Several dependent measures were used to determine strategy effectiveness according to procedures outlined by MacArthur & Graham (1987). A first draft was produced during the first composing session of each condition, and the final draft was the revision that was produced during the second composing session. All changes between the first and final drafts were counted as revisions. These included whether revisions resulted in text that (a) changed or preserved the meaning of the text, as well as determining (b) the number, (c) quality, and (d) syntactic complexity of *nonsurface changes*, and finally, in the holistic quality of their expository essays. Each variable was analyzed within each pair (using scores from EL and non-EL high-achieving, average-achieving, and low-achieving students, and students identified as having LD).

Types of Revisions

Revisions were identified and categorized according to whether they were at a surface or nonsurface level, and then scored according to syntactic complexity (involving a word, phrase, or T-unit). Surface revisions included capitalization, punctuation, spelling, or changes in morphemes, and nonsurface revisions were coded as additions, deletions, substitutions, or rearrangements. Revisions involving more than one T-unit were counted once for each T-unit. Third, all revisions were scored as meaning preserving (e.g., "My chore that I do at home is . . . " to "My chores at home are . . . .") or meaning-changing (e.g., "What makes a good friend for me is friendly, caring and not a bully" to "What makes a good friend for me is a person who is friendly, caring, and doesn't bully"). Fourth, each revision was rated as improving, resulting in no difference, or as lowering the quality of the student's text. A graduate student unfamiliar with the design and purpose of the study independently scored a random sample of 25 percent of the papers to determine interrater reliability for the categorization of all surface changes (percent agreement was 96 percent). The percentage of agreement regarding whether a revision was seen as changing or not changing the meaning of the text was 83 percent and agreement regarding whether a revision changed the quality of text was 82 percent.

Holistic Quality

Two middle school language arts teachers who were unfamiliar with the purpose, design, and students in the study independently scored the quality of each student's final essays that were typed but were not corrected for spelling, punctuation, and capitalization. Scores ranged from 1 to 7, representing the reader's general impression of overall quality. Each rater was asked to consider the ideas and development of the essay, its organization, coherence, as well as quality of sentence structure and vocabulary. Two or more criteria for each of these traits were provided in representative samples (low-, average-, and high-scoring essays) as anchor points for scoring. Average scores were reported for agreed upon or resolved scores; interrater reliability (Pearson *r*) for holistic quality was .76 and 93 percent within one point.

SOCIAL VALIDATION

During the study, teachers noted students' comments concerning their impressions of the revising strategy and the instructional process. After completing the maintenance essay probe, teachers asked students about their perceptions of the intervention. Questions focused on how the strategy affected students' revising and writing (e.g., Do you feel the way you learned to revise your essays made revising easier? Why was this method of revising helpful (or not helpful) for you?), their recommendations for teaching other students (e.g., Would you recommend teaching this method of revising to other students? What changes would you make to this method of revising?), and what they liked and did not like about the strategy. Teachers were also interviewed to obtain their opinion of the revising strategy and effectiveness of the intervention.

RESULTS

EL and non-EL students' average scores for each phase of instruction are presented separately in Table 2. In addition, Figure 1 presents a graph of the number of meaningful changes that all students made during each phase of instruction and because we were especially interested in the EL students' writing outcomes, Figure 2 presents the number of meaningful changes that EL students made during each phase of instruction across the three classrooms.

TABLE 2
Mean Performance Scores of EL and Non-EL Students

Groups	*Baseline M (SD)*	*Postinstruction*	*Maintenance*
EL students with LD			
Meaningful changes	0.42 (.51)	9.00 (5.02)	9.67 (5.69)
Word revisions	2.00 (1.12)	3.00 (0.82)	1.50 (0.71)
Phrase revisions	1.86 (1.86)	4.50 (3.32)	3.00 (1.73)
T-unit revisions	2.00 (0.82)	7.40 (7.27)	4.67 (3.21)
Add	2.67 (2.08)	5.50 (3.56)	7.00 (0.00)
Move	0.00 (0.00)	0.00 (0.00)	0.00 (0.00)
Rewrite	2.20 (1.40)	4.00 (5.35)	2.50 (1.73)
Delete	1.50 (0.55)	3.00 (2.45)	1.33 (0.58)
Holistic quality	1.82 (0.40)	3.17 (0.98)	2.33 (0.58)
Monolingual students with LD			
Meaningful changes	0.14 (0.38)	5.6 (1.14)	8.00 (0.00)
Word revisions	1.50 (0.71)	1.75 (0.50)	0.00 (0.00)
Phrase revisions	2.00 (1.00)	1.50 (100)	2.00 (0.00)
T-unit revisions	0.00 (0.00)	3.20 (0.84)	4.00 (0.00)
Add	1.25 (0.50)	3.40 (1.14)	4.00 (0.00)
Move	0.00 (0.00)	0.00 (0.00)	0.00 (0.00)
Rewrite	1.00 (0.00)	3.75 (2.36)	3.50 (2.12)
Delete	0.00 (0.00)	0.00 (0.00	0.00 (0.00)
Holistic quality	1.71 (0.49)	2.20 (0.45)	2.50 (0.71)
EL/LA students			
Meaningful changes	0.71 (.78)	7.64 (2.76)	9.40 (4.56)
Word revisions	2.00 (1.92)	3.30 (2.50)	3.50 (1.73)
Phrase revisions	2.40 (1.50)	3.00 (1.76)	4.00 (1.83)
T-unit revisions	2.14 (1.21)	4.70 (2.67)	4.00 (2.65)
Add	1.74 (1.45)	3.50 (1.83)	4.20 (1.79)
Move	0.04 (0.21)	0.12 (0.33)	0.33 (0.82)
Rewrite	1.39 (1.40)	3.75 (3.00)	3.40 (3.91)
Delete	0.30 (0.76)	0.63 (1.31)	0.40 (0.55)
Holistic quality	2.05 (0.74)	3.14 (0.86)	2.80 (0.45)
Monolingual LA students			
Meaningful changes	1.33 (1.15)	8.00 (2.65)	6.00 (0.00)
Word revisions	2.50 (0.71)	0.00 (0.00)	0.00 (0.00)
Phrase revisions	2.00 (0.00)	1.00 (0.00)	0.00 (0.00)
T-unit revisions	1.00 (0.00)	5.33 (2.89)	7.00 (0.00)
Add	2.00	7.00	7.00
Move	0.00	0.00	0.00
Rewrite	3.00	1.00	0.00
Delete	2.00	0.00	0.00
Holistic quality	2.00 (.00)	3.00 (0.00)	2.00 (0.00)
EL/AA students			
Meaningful changes	.27 (.47)	6.00 (1.94)	9.00 (5.00)
Word revisions	2.71 (2.06)	2.63 (1.30)	2.33 (1.53)
Phrase revisions	1.67 (1.15)	2.00 (0.82)	2.50 (2.12)
T-unit revisions	1.00 (0.00)	3.33 (2.23)	6.00 (3.00)
Add	1.70 (1.50)	4.33 (2.18)	4.75 (4.35)
Move	0.00 (0.00)	0.11 (0.33)	0.00 (0.00)
Rewrite	0.83 (1.03)	2.55 (3.21)	2.67 (3.78)
Delete	0.09 (0.30)	0.55 (1.13)	0.00 (0.00)
Holistic quality	2.18 (0.87)	3.56 (0.88)	4.00 (0.00)
Monolingual AA students			
Meaningful Changes	1.00 (0.77)	9.33 (4.32)	7.50 (0.71)
Word revisions	2.14 (1.46)	2.63 (1.30)	1.00 (0.00)
Phrase revisions	1.13 (0.35)	2.83 (1.17)	1.50 (0.71)
T-unit revisions	1.40 (0.55)	4.60 (1.52)	4.00 (0.00)
Add	1.50 (1.18)	3.50 (2.26)	2.67 (1.53)
Move	0.00 (0.00)	0.14 (0.38)	0.00 (0.00)
Rewrite	1.18 (1.25)	3.00 (2.19)	2.00 (1.41)
Delete	0.30 (0.48)	0.67 (1.63)	1.00 (1.41)
Holistic quality	2.00 (0.00)	3.83 (0.41)	4.00 (0.00)

TABLE 2
Continued

Groups	*Baseline M (SD)*	*Postinstruction*	*Maintenance*
EL/HA students			
Meaningful changes	0.00 (0.00)	8.50 (0.71)	10.00 (0.00)
Word revisions	2.00 (0.00)	2.00 (1.41)	4.00
Phrase revisions	1.00 (0.00)	4.00 (1.41)	3.00
T-unit revisions	0.00 (0.00)	2.00 (0.00)	1.00
Add	0.25 (0.50)	3.50 (0.71)	4.00
Move	0.00 (0.00)	0.00 (0.00)	0.00
Rewrite	0.67 (1.15)	4.00 (1.41)	3.00
Delete	0.00 (0.00)	0.50 (0.71)	1.00
Holistic quality	3.25 (0.96)	4.00 (0.00)	3.00 (0.00)
Monolingual HA students			
Meaningful changes	0.29 (0.68)	7.38 (4.87)	7.60 (3.21)
Word revisions	2.71 (2.50)	2.25 (2.18)	2.33 (1.53)
Phrase revisions	1.80 (1.09)	2.14 (2.03)	2.00 (1.41)
T-unit revisions	1.40 (0.84)	4.92 (3.94)	3.80 (1.79)
Add	1.06 (1.95)	3.64 (2.62)	3.80 (0.84)
Move	0.00 (0.00)	0.36 (0.84)	2.00 (0.00)
Rewrite	0.59 (1.17)	2.86 (3.96)	2.40 (2.88)
Delete	0.47 (0.87)	0.21 (0.58)	1.00 (0.89)
Holistic quality	2.41 (0.71)	3.31 (0.63)	3.60 (0.55)

Baseline

Meaningful Changes

Before learning the FIX strategy, students—regardless of achievement level—made few or no changes to their essays. With the exception of one pair of average-achieving writers who made two meaningful changes, all other student pairs averaged 0–1.5 changes on any baseline essay. Interestingly, the high-achieving writers made the fewest number of meaningful changes to their essays.

Number and Quality of Nonsurface Revisions

On average, students made fewer than four nonsurface revisions at baseline. Although one pair of high-achieving writers averaged 7.5 on one essay, 10 out of 12 baseline scores from student pairs at this achievement level ranged from 0 to 2. The average-achieving writers averaged fewer than 3 nonsurface revisions; one pair averaged 7 and the remaining baseline scores revealed no more than 3 revisions per essay. The low-achieving writers averaged 3.6 nonsurface revisions, with one pair of students averaging 7 revisions and their remaining baseline scores ranging from .5 to 5.5 revisions. Finally, the students with LD averaged fewer than 3 nonsurface revisions at baseline with one pair of students averaging 6 revisions and the remaining students averaging 1–5 revisions per essay.

Examining the nonsurface revisions revealed that high- and average-achieving writers made more revisions that improved text (44 percent each) compared to low-achieving writers and the students with LD (34 and 28 percent, respectively). Conversely, low-achieving writers and students

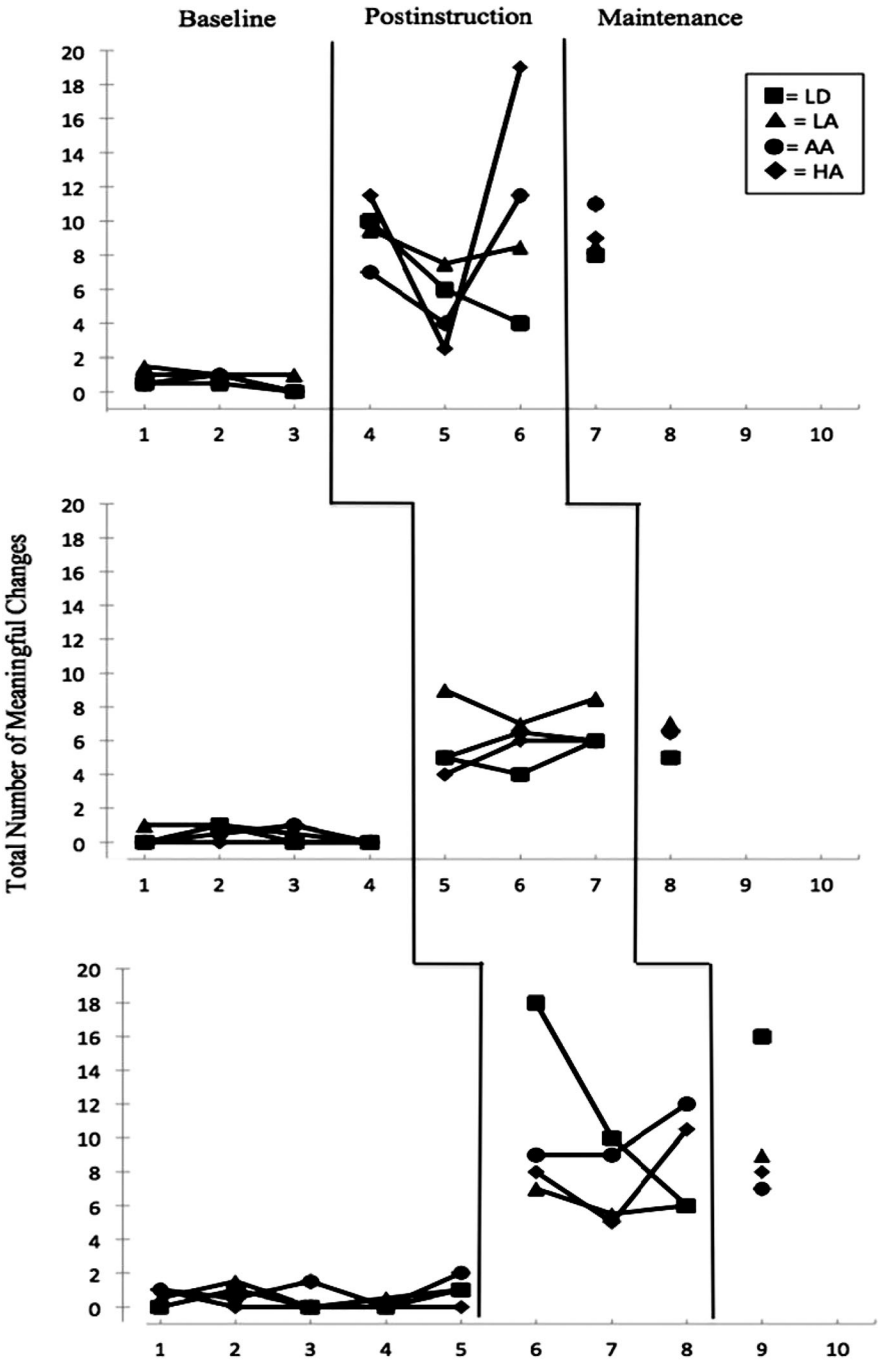

FIGURE 1 Number of meaningful changes for academically diverse participants across classrooms.

with LD made more revisions that did not change the quality of their text (40 and 52 percent, respectively) than high- and average-achieving writers (37 and 34 percent, respectively).

Word, Phrase, and T-Unit Revisions

At baseline, on average, students made fewer than two revisions at the word, phrase, or T-unit level. Although they occurred with relatively low frequencies, word and phrase level changes tended to be more common than T-unit changes.

Nonsurface Revisions by Operation

In general, at baseline, the most common nonsurface revisions were additions, followed by students' attempts to rewrite portions of text. Students rarely deleted text and almost never changed the location of their ideas.

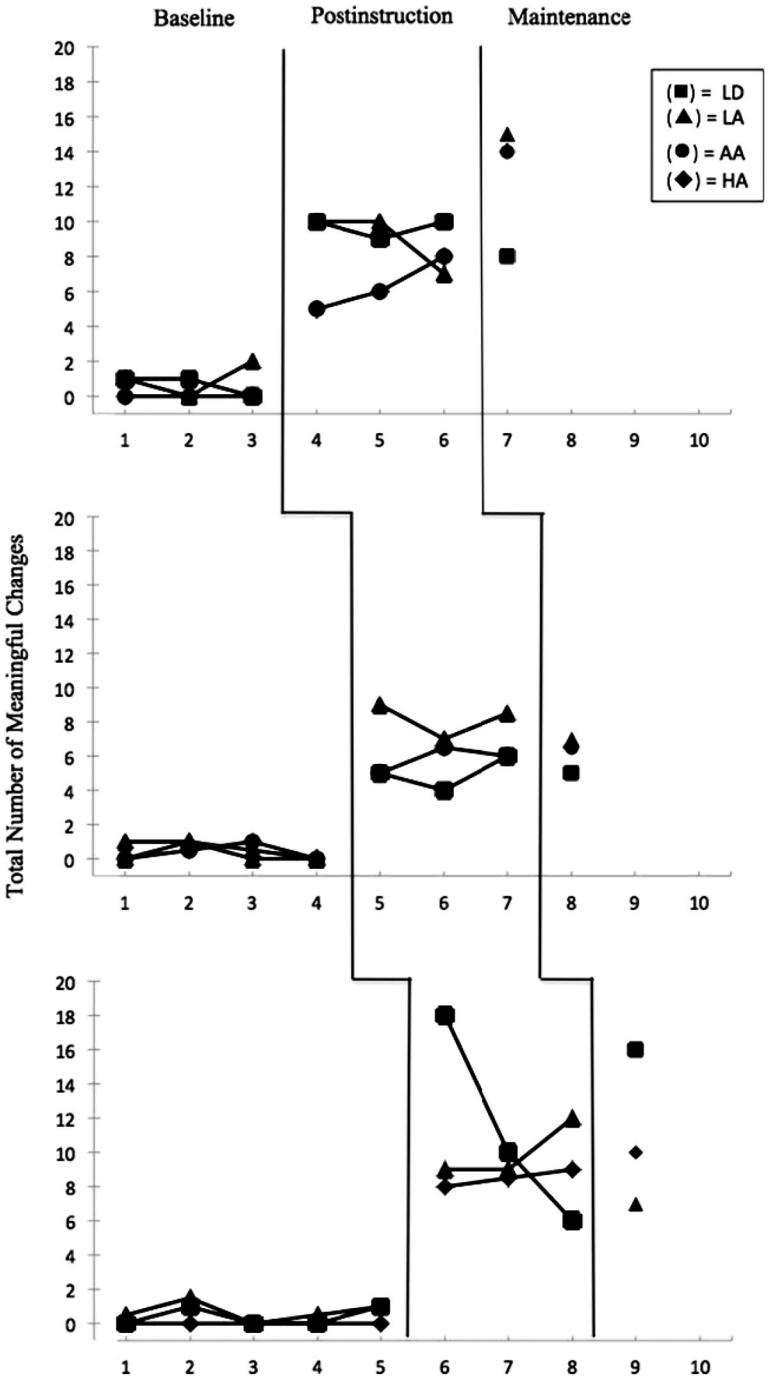

FIGURE 2 Number of meaningful changes for EL participants across classrooms.

Holistic Quality

Scores ranged from 1 to 7. Holistic ratings for students were weak at baseline, with scores that increased according to students' initial writing ability (students with LD = 1.85, low achieving = 2.17, average achieving = 2.38, and high achieving = 2.71).

Instruction

As students began practicing the FIX strategy with peers or on their own, a significant shift in their approach to revision was observed. Most students consistently made more (10–20) revisions on their essays. Students appeared to find the red cards easiest to use because they knew what essay elements

were and where to add them. When using the yellow cards, students selected "This doesn't sound right or does make sense," "My reader needs more information," and "I need to elaborate more" most frequently. When practicing the strategies on their own, students typically added or rewrote information. Students only deleted text when believing that part of their paper did not make sense, and they rarely decided to move text when revising.

Postinstruction

Meaningful Changes

After instruction, all students demonstrated gains in the number of meaningful changes in their expository essays. This demonstrated a conscious effort by students to use the FIX strategy to make changes they had not made previously. We considered the percentage of nonoverlapping data points (PND) as a measure of the significance of the increase in number of meaningful changes from baseline to postinstruction because we had used this dependent measure to determine when to change from one phase to the next during the study. PND was calculated by counting the number of data points that did not overlap, dividing that number by total number of data points, and multiplying by 100 to get the percentage. For number of meaningful changes in this study, PND was 100 percent for all pairs of students.

Number and Quality of Nonsurface Revisions

After learning the FIX strategy, students made two to five times more nonsurface revisions than they had made during baseline. The students with LD made the most revisions during posttesting. Further analysis of students' nonsurface revisions revealed an increase in their ability to make changes that improved the quality of their text. All students more than doubled the number of revisions that made text better. Eighty-eight percent of the nonsurface revisions made by high-achieving writers improved text, followed by students with LD (74 percent), average-achieving writers (71 percent), and low-achieving writers (69 percent). All students reduced or eliminated the number of revisions that lowered the quality of their text. Low- and average-achieving writers reduced their percentages of nonsurface revisions that lowered text quality considerably (to 15 and 13 percent occurrence, respectively). The students with LD and the high-achieving writers were both successful in not making any revisions that lowered the quality of their text.

Word, Phrase, and T-Unit Revisions

All student pairs, except those with LD, made more word-level revisions after learning the FIX strategy and all groups of pairs, regardless of initial writing ability, made more revisions involving phrases after instruction. Moreover, the increase in number of T-unit revisions following instruction was especially noticeable. Students with LD more than doubled their use of T-units; low-, average-, and high-achieving writers made even greater gains. Low-achieving writers made nearly five times the number of T-unit revisions, average writers made eight times as many changes, and high-achieving writers made 11 times as many T-unit revisions than they did at baseline. Thus, after instruction, students made changes to increasingly larger chunks of text.

Nonsurface Revisions by Operation

Students' most common nonsurface change was addition, accounting for 45 percent of the revisions before instruction and 47 percent of the revisions after instruction in the FIX strategy. Rewriting was the next most common type of revision (37 percent before instruction and 39 percent after instruction), followed by deleting (18 and 13 percent, respectively). Students rarely moved text when making revisions (this only occurred 1 percent of the time).

Holistic Quality

Scores for students' final drafts increased by about one full point after instruction. The average quality of essays written by students with LD improved from an average of 1.85 to an average score of 2.9. Low-achieving writers' papers improved from an average of 2.17 to an average score of 3.2. Average-achieving writers wrote essays that increased from 2.38 to an average of 3.9. High achieving writers' papers improved from 2.71 to 3.6, on average.

Maintenance

With little exception, students maintained their postinstruction gains 1 month after instruction ended. Moreover, the number of meaningful changes increased for all but the high-achieving writers to an average of 8.63 per essay overall. Students continued to make more nonsurface revisions; on average, 75 percent of the students' nonsurface revisions made their text better. Students' holistic quality scores remained nearly the same as posttest levels for all but the average-achieving writers, whose maintenance quality scores increased by 14 percent. The way students approached the revising process was very similar to how they did so after instruction. T-unit changes occurred, on average, 47 percent of the time, regardless of a writer's initial writing ability both after instruction and 1 month later. All writers added content most often and decreased slightly the number of deletions and attempts to rewrite parts of their papers.

Social Validation

After the study ended, all but two students had something positive to say about the FIX strategy and the revising process. Fourteen students felt the FIX strategy helped them with organization and made their writing easier. Sample comments included, "This helped me cause it made writing easier;"

"This method was helpful because now I know what to do when I am stuck;" "It made the process faster and simpler;" "I liked the cards that helped us memorize FIX." Two students said that the use of the yellow cards was particularly helpful. Only two students, who said they liked the revising strategy and liked how it made writing easier, also commented that they did not like writing.

Teachers were equally affirmative. Bruce commented: "I do feel that 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." When asked about any concomitant improvement in reading, he replied that students' reading skills were supported by the rewriting procedure because they practiced asking clarifying questions, checking and monitoring their understanding, and rereading portions of text to gain a deeper understanding of what they were reading. Khazim spoke about their writing, "Students were noticeably more able to carry out revision tasks at the end of instruction compared to the beginning of instruction. Additionally, students in this academic year were noticeably more able to carry out revision tasks than were students who did not go through specific revision instruction last academic year."

DISCUSSION

The primary purpose of this study was to evaluate a revising strategy for sixth-grade students that taught them to examine their draft, focusing specifically on the essential elements or parts of an expository essay, identify mismatches between what they intended to write versus what was actually written, and execute necessary changes to the draft in response to specific problems they had identified. All students—including the two who said they still did not like to write—reported that the FIX revising strategy made revising easier by providing knowledge they needed to implement the steps of the revising process. This support not only made the process of revising easier for the students, it changed their overall revising approach. Students made more meaningful changes (as evidenced by the increased number of nonsurface revisions that made text better), most often by adding or rewriting T-unit segments of text, which, in turn, improved the quality of their expository essays by an average of one point on a measure of the degree to which a second draft was improved and on a holistic measure of writing. It is possible that the improvements in writing led to reading improvements (district reading scores were not available to verify this, however, as the sixth graders' scores were distributed during the summer after they matriculated to a different school), because writing instruction has been found to impact reading comprehension (c.f., Graham & Hebert, 2010).

We believe that the results of this investigation provide additional evidence that SRSD is an effective form of instruction in general education settings with students who are English learners as well as those who were not learning English. While the results were remarkably similar for EL and non-EL students, anecdotal evidence suggests that some of the students who were learning English made more surface level changes, perhaps in response to their need to solve language problems in their writing (Stevenson, Schoonen, & Kees de Glopper, 2006). In fact, the effects of the revising strategy were apparent with the students who struggled most with writing as well as with their peers who were more capable writers. Students with LD and students who were low-achieving writers made two to three times the number of nonsurface revisions that made the quality of the text better and reduced or eliminated the number of revisions that lowered the quality of their text both immediately after instruction and 1 month later. This increase is consistent with results reported by other researchers who used similar procedures to teach revising to students with LD (De La Paz et al., 1998; Graham, 1997; MacArthur et al., 1991); moreover, students who struggled most with writing did nearly as well as their average- and high-achieving peers in composing higher quality essays, and they surpassed the average- and high-achieving writers' pretest scores on every dependent measure.

Limitations

Some limitations should be acknowledged. First, although all pairs of students made gains in the quality of their papers, as evidenced by the holistic measure of expository writing quality, these gains were not as large as we had hoped. One possible reason for this is that we did not correct students' papers for errors in capitalization, spelling, and punctuation, as had been done in De La Paz's (1998) explorations of the effects of a similar revising procedure without strategy instruction. Graham, Harris, and Hebert (2011) concur that poor handwriting, spelling, and grammatical errors negatively influence the scoring of students' writing. Students' improvements of one point in holistic quality compare favorably to Graham's (1997) study in which a related revising procedure (taught without SRSD) made revising easier but did not meaningfully influence students' overall writing quality.

Another limitation is that the school where this study took place may be different than those in other urban school districts, thus limiting the generalizability of our results. First, when considering both ethnicity and academic proficiency, students in our study included a higher percentage of students who received free and reduced lunch relative to the cooperating school district, yet the African American participants had higher reading proficiency scores than other African American students in the same school district. Second, the cooperating site was an urban charter school that provided bilingual instruction (in Spanish or French) due to its status as an immersion school. Although the revising instruction in the present study was taught in English, it is likely that the school environment enabled EL students to have supports not common in many schools where English learners are expected to develop spoken and written academic English. This criticism may be countered by knowing that EL students were exited from services that targeted spoken and written English proficiency before they were able to use academic language with on-grade level material. Finally, as with all single-subject designs, this study compares what students learn after instruction to their performance in baseline, with no instruction. Further research should compare the FIX strategy to another form of revising instruction,

such as in a writing workshop classroom that encourages revision through sharing and peer review.

CONCLUSIONS

This study has important implications for both research and instruction. It adds to the growing body of evidence on the effectiveness of strategy instruction in writing, particularly when novice and struggling writers need to learn how to coordinate evaluative and tactical decisions that underlie effective revision. Moreover, the results of this study extend the utility of the SRSD model with children who are nonnative English speakers. While prior studies indicate its benefits for students with attention deficit disorder (e.g., Reid & Lienemann, 2006), for students with autism (e.g., Asaro-Saddler & Sadler, 2010;), for adults who struggle with literacy (MacArthur & Lembo, 2009), for students with BD (e.g., Lane, Harris, Graham, Weisenbach, & Murphy, 2008), as well as for students with cognitive disabilities (Guzel-Ozmen, 2006); this SRSD study provides evidence on its effectiveness for students who are English learners.Because these children are learning about schooling while they are learning to write, researchers should explore ways that cognitive approaches to writing instruction are culturally responsive for learners who are new to American schools (see Graves, Valles, & Rueda, 2000) for an example.

Regarding instructional implications, the results from this study also demonstrate the value of a specific revising strategy that provides both a global (by focusing on the inclusion of expository essay elements) and local (identifying problems and executing changes) level that was taught in combination with direct instruction in common revision tactics (add, move, delete, and rewrite). Therefore, as has been demonstrated in prior revising research, there are benefits to directing students to divide the revising process into separate actions. The FIX instructional routine extends the familiar "revising before editing" routine in concrete ways. Last, we would be remiss if we did not acknowledge the importance of a good writing program, in general. Students in this study explored how to improve their writing in a supportive learning environment that emphasized authentic and frequent writing opportunities, and in an environment where language development in general was prioritized, both features of a good writing program.

REFERENCES

Asaro-Saddler, K., & Sadler, B. (2010). Planning instruction and self-regulation training: Effects on writers with Autism spectrum disorders, *Exceptional Children*, *77*, 107–124.

Coleman, R., & Goldenberg, C. (2010). Using interactive and direct techniques, classroom teachers can help English learners develop their English reading and writing skills. *Kappa Delta Pi Record*, *46*(3), 107–111.

De La Paz, S., & McCutchen, D. (2011). Learning to write. In R. E. Mayer & P. A. Alexander (Eds.), *Handbook of research on learning and instruction*. New York and London: Taylor & Francis Group.

De La Paz, S., Swanson, P. N., & Graham, S. (1998). The contribution of executive control to the revising by students with writing and learning difficulties. *Journal of Educational Psychology*, *90*(3), 448–460.

Echevarria, J., Short, D., & Powers, K. (2006). School reform and standards-based education: A model for English language learners. *The Journal of Educational Research*, *99*(4), 195–210.

Fitzgerald, J., & Markham, L. R. (1987). Teaching children about revision in writing. *Cognition and Instruction*, *4*(1), 3–24.

Graham, S. (1997). Executive control in the revising of students with learning and writing difficulties. *Journal of Educational Psychology*, *89*, 223–234.

Graham, S. (2006). Writing. In P. Alexander & P. Winne (Eds.), *Handbook of educational psychology* (pp. 457–477). Mahway, NJ: Erlbaum.

Graham, S., Harris, K. R., & Hebert, M. (2011). It is more than just the message: Presentation effects in scoring writing. *Focus on Exceptional Children*, *44*(4), 1–12.

Graham, S., & Hebert, M. (2011). Writing-to-read: A meta-analysis of the impact of writing and writing instruction on reading. *Harvard Educational Review*, *81*, 710–744.

Graham, S., & MacArthur, C. A. (1988). Improving learning disabled students' skills at revising essays produced on a word processor: Self-instructional strategy training. *Journal of Special Education*, *22*, 133–152.

Graves, A., Valles, E. C., & Rueda, R. (2000). Variation in interactive writing instruction: A study in four bilingual special education settings. *Learning Disabilities Research and Practice*, *15*, 1–9.

Guzel-Ozmen, R. (2006). The effectiveness of modified cognitive strategy instruction in writing with mildly mentally retarded Turkish students. *Exceptional Children*, *72*, 281–297.

Harris, K. R., & Graham, S. (1999). Programmatic intervention research: Illustrations from the evolution of self-regulated strategy development. *Learning Disability Quarterly*, *22*, 251–262.

Hammill, D. D., & Larsen, S. C. (1996). *Test of written language* (3rd ed.). Austin, TX: Pro Ed.

Hayes, J. R. (2004). What triggers revision? In L. Allal, L. Chanquoy, & P. Largy (Eds.), *Studies in writing, Vol. 13, Revision: Cognitive and instructional processes* (pp. 9–20). Boston, MA: Kluwer.

Kieffer, M. J., & Lesaux, N. K. (2012). Effects of academic language instruction on relational and syntactic aspects of morphological awareness for sixth graders from linguistically diverse backgrounds. *The Elementary School Journal*, *112*(3), 519–545.

Lane, K. L., Harris, K., Craham, S., Weisenbach, J. L., ßrindle, M., & Morphy, P. (2008). The effects of self-regulated strategy development on the writing performance of second grade students with behavioral and writing difficulties. *Journal of Special Education*, *41*, 234–253.

MacArthur, C. (2007). Best practices in teaching evaluation and revision. In S. Graham, C. A. MacArthur, & J. Fitzgerald (Eds.), *Best practices in writing instruction* (pp. 141–162). New York: Guilford Press.

MacArthur, C. A., & Graham, S. (1987). Learning disabled students' composing under three methods of text production: Handwriting, word processing, and dictation. *The Journal of Special Education*, *21*(3), 22–42.

MacArthur, C., & Lembo, L. (2009). Strategy instruction in writing for adult literacy learners. *Reading and Writing*, *22*, 1021–1039.

MacArthur, C., Schwartz, S., & Graham, S. (1991). Effects of a reciprocal peer revision strategy in special education classrooms. *Learning Disabilities Research and Practice*, *6*, 201–210.

Mancilla-Martinez, J. (2010). Word meanings matter: Cultivating English vocabulary knowledge in fifth-grade Spanish-speaking language minority learners. *TESOL Quarterly*, *44*(4), 669–699.

McCutchen, D. (2006). Cognitive factors in the development of children's writing. In C. A. MacArthur, S. Graham, & J. Fitzgerald (Eds.), *Handbook of writing research* (pp. 115–130). New York: The Guildford Press.

Midgette, E., Haria, P., & MacArthur, C. (2008). The effects of content and audience goals for revision on the persuasive essays of fifth- and eighth-grade students. *Reading and Writing*, *21*, 131–151.

Monroe, B. W., & Troia, G. A. (2006). Teaching writing strategies to middle school students with disabilities. *The Journal of Educational Research*, *100*(1), 21–33.

Peercy, M. M. (2011). Preparing English language learners for the mainstream: Academic language and literacy practices in two junior high school ESL classrooms. *Reading & Writing Quarterly*, *27*, 324–362.

Reid, R., & Lienemann, T. O. (2006). Self-regulated strategy development for written expression with students with attention deficit hyperactivity disorder. *Exceptional Children*, *73*, 53–67.

Rogers, L. A., & Graham, S. (2008). A meta-analysis of single subject design writing intervention research. *Journal of Educational Psychology*, *100*(4), 879–906.

Rijlaarsdam, G., Couzijn, M., & van den Berg, H. (2004). The study of revision as a writing process and as a learning-to-write process: Two prospective research agendas. In L. Allal, L. Chanqouy, & P. Largy (Eds.), *Revision: Cognitive and instructional processes* (Vol. *13*, pp. 189–208), Boston: Kluwer.

Scardamalia, M., & Bereiter, C. (1983). The development of evaluative, diagnostic, and remedial capabilities in children's composing. In M. Martlew (Ed.), *The psychology of written language: A developmental approach* (pp. 67–95). London: Wiley & Sons. Ltd.

Spycher, P. (2007). Academic writing of adolescent English learners: Learning to use ''although''. *Journal of Second Language Writing*, *16*, 238–254.

Stevenson, M., Schoonen, R., & de Glopper, K. (2006). Revising in two languages: A multi-dimensional comparison of online writing revisions in L1 and FL. *Journal of Second Language Writing*, *15*, 201–233.

Wong, B. Y. L., Butler, D. L., Ficzere, S. A., Kuperis, S., Corden, M., & Zelmer, J. (1994). Teaching problem learners revision skills and sensitivity to audience through two instructional modes: Student-teacher versus student-student interactive dialogues. *Learning Disabilities Research & Practice*, *9*, 78–90.

Appendix A: FIX Revising Strategy

Strategy Steps	Explanation
Focus on essay elements	Read your paper. Use the red cards to make important essay parts better.
Identify problems	Read your paper again. Follow directions on the yellow cards.
Execute changes	Make changes (see green cards) AND check that your essay makes sense.

Focus on Essay Elements (Red cards)

1. Does my premise (or statement of belief) answer the prompt?
2. Do I have enough reasons?
3. Did I elaborate (explain, use examples, or describe experiences)?
4. Does my conclusion sum up my ideas?

Identifying Problems (Yellow cards)

1. Does my premise get the reader's attention?
2. This does not sound quite right or does not make sense.
3. This sentence does not really support my idea. I'm getting away from the main point.
4. People may not understand what I mean. My reader needs more information.
5. This is a weak or incomplete idea. I need to elaborate more.
6. This is repetitious.
7. The problem is _____.

Execute Changes (Green cards)

Add
Move
Delete
Rewrite

About the Authors

Susan De La Paz is associate professor of Special Education at the University of Maryland. She has spent the last 15 years creating and validating writing curriculum, first in English classes, and more recently, within the discipline of history, as well as helping teachers meet the needs of students with LD, struggling learners, and proficient and advanced learners in middle and high school classrooms.

Cindy K. Sherman is a learning specialist and special education consultant in Washington, DC. She received her Ph.D. in Special Education from the University of Maryland. Her areas of specialization include developing instructional approaches for students with learning disabilities and for low-performing students in urban settings. Her research interests include literacy and learning strategies.