Giving Feedback: Preparing Students for Peer Review and Self-Evaluation

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Students struggle with revision because they do not know how to evaluate their own writing as readers. Preparing students for peer review via practice in applying evaluation criteria can develop their evaluation skills.

> Revision, well…all of them [students] want to go from prewriting to the first draft, from the first draft to publishing. They don't really see the value of looking back at their work and making changes. You tell them the same thing over and over again, and they keep coming back to you with the same problems and the same questions. I guess I shouldn't give up but just keep going until they understand. I just wish I were more methodical.

Julius (all names are pseudonyms), a fourth-grade teacher, presented in these few sentences his students' and his own challenges with revision. Julius's students did not seem to recognize the value of this step of the writing process and tended to skip it. Also, they were not able to work independently to problem solve; even when he explained revision tasks, they still tended to rely on him for feedback and were not able to internalize and own the information. Julius's quest for methodical instruction represents his quest for evidence-based approaches that could support his students' revision practices. The purpose of this article is to describe an approach to training for revision and peer review that is evidence-based, does not require excessive teacher preparation, and can be easily implemented.

Why Do Students Find Revision Challenging?

When expert writers revise their work, they examine it for mismatches between their intended meaning and its actual meaning (Bereiter & Scardamalia, 1987; Hayes & Flower, 1980; Hayes, Flower, Schriver, Stratman, & Carey, 1987), but they also treat it as an opportunity to discover better ways to express those meanings (Hayes, 1996, 2004, 2006; MacArthur, 2016; MacArthur & Graham, 2016). Young students and developing writers often find revision difficult, and they approach it as an editing task (Fitzgerald, 1987; Fitzgerald & Markham, 1987). Several explanations can be given about the origin of these challenges.

First, students may have a limited understanding of revision as a process, and they may only attend to the length of their papers, to editing changes, to rewriting their work or substituting words (Fitzgerald & Markham, 1987; MacArthur, Graham, & Schwartz, 1991). Second, they may understand that revision should include larger changes, but they may not be able to evaluate their work and diagnose any problems (Graham, 1997; Hayes et al., 1987; MacArthur, 2011, 2012, 2016). This difficulty could be due to a lack of knowledge of evaluation criteria (MacArthur, 2016; Moore & MacArthur, 2012). Consequently, students may engage in sentence-by-sentence editing with changes on the word level instead of substantive changes to the organization and ideas (Hayes et al., 1987). Third, students may be able to diagnose problems with their work, but they may lack strategies for making revisions (Hayes et al., 1987). Finally, students may lack an understanding of audience and its needs (Magnifico, 2010; Midgette, Haria, & MacArthur, 2008; Moore & MacArthur, 2012; Rijlaarsdam, Couzijn, Janssen, Braaksma, & Kieft, 2006). Instructional approaches suggest that when writers take the perspective of the reader, they are able to develop a better understanding of the communicative needs of their work and make effective revisions that affect writing quality (Moore & MacArthur, 2012; Rijlaarsdam & Couzijn, 2000).

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Peer Review

An instructional approach that is based on collaboration is peer review. During peer review, partners meet and writers become readers who comment on their partners' work. There are a number of positive outcomes from the application of this approach, but perhaps the most important one is that the reciprocal aspect of peer review can potentially affect students' awareness of the readers' needs as the writer can anticipate the audience's reaction (Beach & Friedrich, 2006; Englert & Mariage, 1991; Englert, Mariage, & Dunsmore, 2006). This anticipation by the writer, as well as the writer's need to belong to the community (Dyson, 1997), could lead to the negotiation of meaning between the text, the writer, and the reader. Consequently, it can result in changes to the final text.

However, peer review is not the panacea for revision. Often, students do not value their partners' comments as much as they would value their teacher's comments, and students are not always able to identify problems in their peers' papers (Topping, 1998, 2005). Further, students may hesitate to provide truthful feedback to their peers because they do not have a clear understanding of evaluation criteria and it is not clear to them how to develop suggestions or what to focus their comments on (DiPardo & Freedman, 1988; MacArthur, 2016). This lack of knowledge can lead reviewers to uncertainty; therefore, the reviewers may make superficial comments or general statements that may not be accurate or even helpful to the writer (e.g., "This is good").

Effective peer review depends on the provision of specific instruction to prepare students to be effective reviewers (MacArthur, 2016; Topping, 2005). Research has shown that for peer review to be effective and meaningful to students, there should be time devoted to training students on the reviewing procedures and time for them to practice those procedures (for a review, see MacArthur, 2016). Without adequate preparation, when students meet with their partners, they may focus on minor editing issues or make superfluous comments (Brakel, 1990; Tsivitanidou, Zacharia, & Hovardas, 2011). Such instruction is important for students (a) to value the process and clarify how it differs from editing, (b) to learn procedures that can guide their reviewing effort, and (c) most important, to learn how to evaluate writing in general and their own writing in particular. Students may focus on editing because they do not understand higher level evaluation criteria; once they learn them, students can make more substantive revisions. Through instruction, students can learn how to give critical feedback and to understand the procedures they should follow during their meetings (Boscolo & Ascorti, 2004; DiPardo & Freedman, 1988; Pritchard & Honeycutt, 2006).

PAUSE AND PONDER

- What are some of the instructional challenges that you face when teaching revision?
- What practices do you currently use to teach evaluation and revision? How do you know that they are effective?
- How do you support and promote students' independent use of those practices?
- What are the challenges that your students face when they are asked to revise?
- How can the use of genre-specific criteria support students' evaluation and reviewing?
- How can evaluation criteria support students as reviewers?
- What may be the benefits of using genre-specific criteria compared with general criteria for evaluation?

Giving Feedback Promotes Critical Reading

A writing practice guide by Graham, Bollinger, et al. (2012) provides specific recommendations regarding effective writing practices. One of those recommendations refers to the development of an engaged community of writers in which, among other practices, students are given the opportunity to give and receive feedback through the writing process. Peer review is based on such reciprocity, and when peers receive the feedback of their reviewing partners, they can use it to improve their ideas and their work. However, it is not only the receivers of feedback who benefit but also the readers who critically evaluate and write comments and suggestions for the writer (Philippakos & MacArthur, 2016b). As reviewers read the work of others, they read and think critically, comparing the presented ideas to specific criteria. This practice can help reviewers develop specific revising goals for their own papers and better understand the task of evaluation and revision (Bereiter & Scardamalia, 1987). Also, they may be able to apply the same critical reading and evaluation processes for self-evaluation and, as a result, improve the quality of their own drafts when revising.

The effects of giving feedback on reviewers have been studied with college students and

second-language learners (Cho & MacArthur, 2011; Lundstrom & Baker, 2009); both studies found that giving feedback, even without receiving any, had positive effects on later writing by the reviewers. A recent study (Philippakos & MacArthur, 2016b) of giving feedback using genre-specific evaluation criteria extended these findings to fourth- and fifth-grade students (n = 145) who worked on persuasive writing. This study included three groups: (1) reviewers who read persuasive essays, evaluated them using genre-specific criteria, and wrote comments; (2) a reader control group who read the same persuasive essays, and (3) a time control group that read texts of a different genre.

All students in their homerooms received instruction on the evaluation criteria and on the elements of persuasion using a genre-specific rubric. Instruction lasted for 40 minutes and included an explanation of the purpose of persuasive writing and the organizational elements of the genre, followed by observation of the teacher evaluating papers using those elements. For the next three days, the students were randomly assigned to the three groups—reviewers, reader control, or time control—for three days of practice. The reviewers practiced evaluating and giving feedback to persuasive papers written by unknown students; the reader control students read the same essays but did not provide any comments; the time control students read books. After three days of practice, students returned to their homerooms and, over the next two days, revised the papers they had written at baseline. Students also wrote essays on two new topics and revised them three and 10 days after the intervention, with no reminders on the use of evaluation criteria. Analysis of the results controlling for students' performance at pretest indicated that reviewers wrote better quality papers compared with the two control groups; no differences were found between the reader control and the time control. Also, the reviewers included more persuasive elements in their essays, specifically elements of the opposing position that are far more challenging for young learners (Midgette et al., 2008).

Benefits of Giving Feedback in Preparation for Peer Review and Self-Evaluation

The process of giving feedback and learning through the reviewing process can benefit students on several levels. First, reviewing papers supports students in developing a sense of audience. Being a reader while thinking about potential problems in a text helps them understand the areas where their own writing may pose challenges to the reader. As a result, they are better able to anticipate potential confusions for the reader and to make changes to assist the process of comprehension. Also, reading papers written by others and not by the writers may assist them in evaluating the text at hand and not the inferred meaning of the text (Hayes et al., 1987).

How to Prepare Students in Giving Feedback

Practice in giving feedback does not need to be instructionally complicated; however, it should be done in a systematic way (Philippakos & MacArthur, 2016b). Practice and repetition can help students internalize and better understand the evaluation criteria, give importance to the task of giving feedback, and improve the quality of students' comments.

The process of instruction requires some teacher preparation. First, the guidelines and criteria for evaluation should be carefully developed. Therefore, the genre elements and specific evaluation criteria should be carefully thought out (e.g., is the character clearly described to the reader? Do the main character and additional characters have names?). Rubrics should be developed that will allow readers to assign scores on those evaluation criteria and make comments. (See Figure 1 for a sample rubric on story writing.) Such a system of scoring could be based on a three-point system in which a score of 0 represents the absence of the genre feature, a score of 1 represents the presence of the feature but with limited quality and clarity, and a score of 2 represents clarity of meaning (Philippakos, 2012; Philippakos & MacArthur, 2016a). Finally, papers for practice should be chosen, including both good and weak examples (Cho & MacArthur, 2011; Philippakos & MacArthur, 2016b; Philippakos, MacArthur, & Coker, 2015). The good examples of students' writing in this case will function as models so students can develop a schema about the expected quality of each element. Reading those samples and evaluating them can lead students to clarify the expectations for the genre and for each of its components. The use of such texts followed by weaker examples can better help students make comparisons to understand how each element should be written. For instance, one paper may have clearly stated reasons, but the second may not. Students could then

Figure 1
Sample Rubric for Self-Evaluation and Peer Review of Story Writing

Date: _____

Student's Name: _____ Reviewer's Name: _____

		0 points (not there)	1 point (could be better)	2 points (great!)
Beginning	*Characters:* Is the main character named and described clearly? Are other characters described?			
	Time: Can you tell when the story happens?			
	Place: Is the place described clearly?			
	Problem: Is there a clearly described problem that sets the story in motion?			
Middle	*Events:* Is there a clear, logical sequence of events to try to solve the problem? Are the events interesting?			
	Complications: Are there clear, logical complications that initiate new events or problems? Are they interesting?			
End	*Solution:* Is the ending a logical solution to the problem?			
	Emotion: Can you tell how the character(s) feel?			
Other considerations	Is there a title that clearly connects to the information in the story?			
	Were the characters' personalities and emotions shown throughout the paper? Did the writer show not tell?			
	Were things described vividly? Could the reader see what the characters saw?			
	Were transition words used appropriately throughout the story?			

Reviewer/Writer as Reader

- Overall, was the story interesting to you as a reader?
- What revisions should be made?

Goals

- What could be the writer's goals for the current and future papers?

Note. Adapted from *Developing Strategic Writers Through Genre Instruction: Resources for Grades 3–5* (p. 96), by Z.A. Philippakos, C.A. MacArthur, and D.L. Coker Jr., 2015, New York, NY: Guilford. Copyright 2015 by Guilford Press. Adapted with permission.

discuss possible improvements to clarify the reasons, perhaps by adding transition words or by clarifying the idea itself.

Instruction also requires explicit explanation and modeling by the teacher. Specifically, it requires the teacher to use think-aloud modeling to show students how to evaluate papers and how to provide comments to the writer. During teacher modeling, students will observe how the teacher applies the evaluation criteria to analyze a paper using the genre elements, understand its content, and give specific suggestions for improvement to the writer. In this process, the teacher could use a good example to show how the evaluation criteria apply to the paper, then work with a weak example and model how to identify each element, how to evaluate it,

how to score it, and how to provide comments. This is the process that students will need to follow when they work with their peer and alone; therefore, the teacher's modeling of the process is necessary.

After the modeling, the teacher will invite students to collaboratively practice the process of reading to identify the genre elements, score each element, and give suggestions and feedback. Opportunities for student practice using sample papers by unknown peers should be provided prior to students working with a peer. Working with papers by unknown peers allows students to provide honest feedback without worrying about criticizing classmates. The teacher can also provide a minilesson on specific topics to better support students' ability to develop helpful comments. It is important for the teacher to model and provide time for students' practice in these minilessons. For example, if students have difficulty giving suggestions for improvement to the introduction of a persuasive paper, the teacher could model a lesson on writing effective introductions (e.g., using a story or an anecdote). Then, the teacher and students could evaluate a paper and work together in giving suggestions to the writer about the introduction and in making revisions. For example, on a persuasive paper that asks whether students should wear uniforms, a teacher could suggest, "Perhaps you could begin with a story. For example, talk about a time that you were expected to sit still, but you could not because your clothes made you itch." Overall, during practice it is important to be thorough in explanations, give feedback to students, and reinforce the use of the criteria that are used to evaluate the paper. Students should be given multiple opportunities to practice before they are ready to review the work of others and self-evaluate.

It is not only important for students to practice giving feedback; it is equally important to give opportunities for students to reflect on their own learning. If students are only completing the task because they are asked to do so, they may not value it and may rush through it. When students are given the opportunity to discuss and reflect on the process they followed and the use of evaluation criteria for review (self and peer), they can comment on the steps they used, on the challenges they faced, on the need to be honest and clear in their comments, on the need to be specific when giving suggestions. These discussions will allow the teacher to also address that truthful feedback is meant to be helpful and not hurtful. Overall, rich classroom discussions in which the group exchanges ideas and reflects will be necessary to understand how students think about the approach, what challenges they face, and how to address those challenges. Therefore, a sense of community in which students and their teacher collaborate throughout the process is important (Graham, Bollinger, et al., 2012).

The Use of Specific Evaluation Criteria

The use of specific criteria to guide revision for self-evaluation as well as for peer review can support students' critical reading, attention, and effort and the quality of their suggestions (MacArthur, 2016). Such specific criteria could be based on text structure and genre elements (Englert, Raphael, Anderson, Anthony, & Stevens, 1991; Philippakos & MacArthur, 2016b; Philippakos et al., 2015). Genres refer to different types of writing that have specific structures and satisfy specific writing purposes. For example, the purpose of a story is to entertain; in a story, there will be a beginning that includes the characters and setting, a middle that includes the problem and actions for its solution, and an end with the solution to the initial problem (Philippakos et al., 2015; see Figure 1). Studies on strategy instruction (Graham, 2006) are based on instruction in the use of text structure elements and genre for planning, writing, and revising (Graham, McKeown, Kiuhara, & Harris, 2012). Evaluation criteria that are based on a genre can support students' understanding about the genre's organizational structure and also guide their attention when reading for evaluation. This process can support students' ability to better provide feedback that would be accurate and helpful to the reader (e.g., that the paper does not have a clear description of the character).

The process of developing evaluation criteria is not limited to teacher-assigned topics and prompts. Once students have been introduced to a genre, they can write about any topic in that genre and use the same evaluation criteria. In addition, the approach also supports generalization across genres. Once students have developed, with the support of the teacher, an understanding about genre elements and relevant evaluation criteria, they can co-develop with their teacher evaluation criteria for other writing tasks. For example, after practicing evaluation on opinion papers, students may work on book reviews or responses to reading, examine criteria for these types of writing, and collaboratively develop those. In this way, students can learn to generalize

information from the taught genres and criteria to other genres and criteria.

Julius's Fourth-Grade Classroom: A Look From Within

Julius's instructional goal was for his students to be able to make effective revisions without only relying on his feedback and comments. After his students had completed the first draft of their paper but before they made any revisions, Julius taught them how to evaluate persuasive papers using evaluation criteria that were based on genre. He reviewed with his students the purpose of writing persuasive papers, reviewed with them the elements of persuasion, and explained to them a rubric that included the evaluation criteria for persuasion (Philippakos & MacArthur, 2016a). The rubric included the elements of the genre: a beginning that discussed the topic and the writer's opinion; a middle with two sections, the Me section with reasons and evidence that supported the writer's opinion and the Others section with a statement of the opposing position, reasons to support it, and a rebuttal; and an end that included a restatement of the position and a message to the reader. The rubric also included other criteria of general quality, such as the inclusion of a title and transition words and the use of appropriate tone. Besides the inclusion of the genre elements, the rubric also had a numerical scoring system ranging from 0 to 2. Zero meant that the element was not present, 1 meant that the element was present but not clear or well developed and would benefit from revision, and 2 meant that the element was well written.

Julius applied the evaluation criteria to well- and poorly written essays by thinking out loud, by explaining his reaction as a reader, and by recording suggestions for the improvement of each element. In addition, he problem solved and modeled self-regulation as he showed how the use of the rubric helped him stay on task and not "quit." He used the rubric and the elements as a guide to navigate through the paper without feeling overwhelmed. Finally, he made one revision using the comments he had written for one of the elements. After modeling with the first paper and after discussing the evaluation of the first reason, Julius invited students' comments and thoughts for the second and third reasons. This gave him an opportunity to listen to what his students thought about the paper, how they understood the argument that was made in the paper, how they evaluated it and justified a score they suggested, and what comments they gave for the writer.

In the second stage, Julius worked with his students as a group to collaboratively evaluate a new paper. The dialogue between students and teacher was more elaborate, and Julius was surprised to see how critical students were in their evaluation. They were very strict in their scoring, and he often stopped to remind them that the goal was not to tell the writer that the paper was not "good enough" but to provide the writer with suggestions that would help improve the quality of the work. Therefore, students needed to look at their scores and, for the evaluation criteria that had received scores of 0 and 1, develop suggestions for improvement so the writer could make revisions.

In addition, he discussed with students the benefits of this approach and why it was important for them to remember the elements and evaluate their work before meeting with a peer or before handing in their paper for grading. The next day, Julius reviewed the process, and students worked in small groups to review papers written by unknown peers. He gave them feedback on the application of the evaluation criteria and also met with small groups of individual students who needed additional support to guide them through their work. The same process was followed for one more day, and students were asked to independently evaluate papers. Finally, students were asked to reread their work and use the evaluation criteria to self-evaluate. After this, they peer reviewed and, finally, used the comments of their peers and their own judgments and comments to decide what changes to make to their work.

The benefits of this approach can be seen in the comments of students who participated in the process of reviewing using specific evaluation criteria and were asked to explain whether giving feedback was helpful to them. Angelo, a fourth-grade student, said,

> Uh, yeah, it did. I remembered 'cause that's where I got my first reason and second reason because at first I didn't do that. I just wrote a little passage, and most of the papers had what other people say, and I didn't have that, so I added that, too. The paper that I wrote didn't have that much detail into it, but when I read a bunch of those and revised them, and I helped them, it was a lot easier to make it persuasive and interesting. Like, I put—in some papers, they had a lot of details into it, and mine didn't have that many details in it, so I put a lot of details in mine. It helped me because it really—I

> didn't put that much effort into my papers, but most of the papers that I read really did, so that changed my train of thought. Most of them had a lot of good details, was very interesting, it said what other people had to say. It had a beginning, middle, and an end, and it had a conclusion.

A look at Angelo's first draft and revised draft (see Figures 2 and 3; Philippakos, 2012) suggests a change in the way he organized the information. Angelo added more details and elaborated on the reasons in his revised draft. He also included a conclusion and divided the information into paragraphs.

Yiorgia was also a fourth-grade writer. Her first and revised drafts are shown in Figures 4 and 5. During an interview in which she was asked to explain how this process helped her, Yiorgia said,

> Before I didn't know we needed to put the others down—like writing what they thought. I always thought we just need to write about what we thought, and I also didn't know you need to put a hook, so now I have that. I didn't know I really needed to have a fun title, so I just put, like, whatever I was writing about at the top, but now I try to make it the best I can.

When Yiorgia was asked to describe the rubric that she used during training, she said,

Figure 2
Angelo's[a] First Draft

I think that kids should go on field trips because if you haven't gone their before then you get to have a new exspirents of were you're going, and it also might give kids a good chance to learn something new even though it's very expensive to do it, thats why I think kids should go on field trips.

[a]Pseudonym.

Figure 3
Angelo's[a] Revised Draft

Yay, We're going on a Field Trip!!

I think kids should go on field trips because uselly if you were uniforms to shcool then you might be excited to not were a uniform on a field trip.

One reason I think we should go on field trips is that you always learn something new, even, if its baking or how cell phones work you always learn something new.

A second reasons is when you go on a field trip you uselly get a tour guide so you won't get lost. My conclusion is field trips were always fun for me so I hope there fun for you!!

[a]Pseudonym.

Figure 4
Yiorgia's[a] First Draft

Why shouldn't they take their students on feild trips? I do beleive schools should take their student on feild trips.

I think this because it is a good opportunity to get out of the school and go somewhere new every once and a while. Students like to go to places where they can run around and yell without getting into trouble with their teachers.

Also, it is a fun learning experience when you can go on hikes, look in creeks, watch insects, and go to museums. Student's especially like the outdoor ones, because they can get dirty without their parents giving them looks like "seriously."

When kids visit museums they meet men and woman who can help the students learn more than their teachers because they are experts on the subject. Teachers learn about multiple things in school to learn teaching, while people at museums usually work mostly on that one subject.

That is why I think students should go on feild trips.

[a]Pseudonym.

> I remember that they had at the beginning, they had grab the readers' attention and does the writer state clearly what he or she thinks. In the middle, it had Me and Others. In Me, it asked if I have a first reason with convincing reasons and examples and a second and third reasons with examples. In Others, it says does the writer have what others think stated clearly, and does it give an example or detail about that and why he or she is wrong? At the end, it has does the author restate what he or she thinks in different words at the end, and does it leave the reader with something to think about? Does it have a good title, is it convincing, and I forget the rest of those.

The comments from these two students suggest a better understanding about evaluation and about the elements of persuasion. Evaluation of and practice in giving feedback helped Angelo develop his reader's perspective, allowing him to identify unclear areas and gaps in meaning. Yiorgia's response suggests a better understanding of the elements of persuasion and the organization of a paper. To be convincing to others, she understood that she should also address the opposing side. In addition, she should provide a leading title and an engaging introduction.

Giving feedback as a practice in preparation for revision can improve students' ability to critically read and diagnose whether their work is clear to the reader and whether it satisfies the needs of the writing purpose and genre. Instruction on evaluation criteria can be part of classroom instruction

Figure 5
Yiorgia's[a] Revised Draft

Hipp-hipp-Hooray for Field trips Today!

Hip-hip-hooray for field trips today! Here is a message to remember. Why shouldn't we have field trips? I do beleive schools should take their students on feild trips.

I think this because it is a good opportunity to get out of the school and go somewhere new every once-and-a-while. Students like to go to places where the can run around and yell without getting in trouble with their teachers.

Also, it is a fun learning experiece when you can go on hikes, look in creeks, watch insects, and go to museums. Students especially like the outdoor ones, because they can get dirty without their parents giving them looks like "seriously."

When kids visit museums they meet women and men who can help them learn more than their teachers can because they are most likely experts on the subject. Teachers learn about multiple things in school to become teachers, while people at museums usually work mostly on that one subject.

The final reason is, some schools (like mine) wear uniforms and when those schools take their students on an outdoor feild trip they don't need to wear a uniform. kids in my school rejoice when we have a feild trip because mostly no uniforms, and they're fun.

Others say that feild trips are a waste of time and money, and kids should be in school learning. I disagree. Feild trips were made for students to have fun and learn at the same time. If people don't want their kids going on feild trips then they shouldn't let them, not ruin everyones fun.

That is why I think students should go on feild trips. What do you think?

[a]Pseudonym.

in preparation for peer review or as a way to support students' self-evaluation practices. The teacher models the process of giving feedback, collaboratively practices it with students on papers of unknown others, and gives students time to practice prior to their self-evaluation and goal setting. Then, students meet with a partner or partners for peer review. Knowledge of specific evaluation criteria can guide students' comments and thinking as they prepare or conduct peer review and self-evaluation. By giving feedback, writers practice how to be readers and learn how to be critical reviewers of the work of others and of their own work. The comments that students made show an increased understanding of the process of identifying genre elements. The use of specific evaluation criteria guided students to identify the elements, examine their clarity, and develop plans for revision.

Parting Words

The Common Core State Standards (National Governors Association Center for Best Practices & Council of Chief State School Officers, 2010), with the rigorous outcomes they set for students, require the application of approaches that are evidence-based and promote students' independent use. The goal of instruction in writing is not for the students to be able to apply the taught skills when prompted or with teacher guidance. To the contrary; students should be able to effectively monitor their work and independently apply taught information.

Revision is an important component of the writing process and is necessary in order for authors to effectively communicate with readers. Thus, students should be taught approaches that can support their self-evaluation and their ability to take ownership of their own learning. Emphasis on giving feedback and on training using principles of evaluation prior to peer review and self-evaluation can improve students' revision and writing quality. For these review efforts to be effective, students should be supported in the process of giving feedback, guided in their evaluation efforts, and trained on the procedures they should follow as they read for evaluation purposes.

Training on evaluation can assist students in developing suggestions for peers' papers and also in evaluating their own work to diagnose areas for improvement. This training can be based on the use of specific evaluation criteria that relate to genre and text structure. First, the use of evaluation criteria can provide students with specific goals and guide their revision efforts; therefore, students may be supported in their ability to self-evaluate and diagnose problems in their work. Second, the use of genre evaluation criteria can improve students' understanding about the genre and the writing purpose. For example, when students are taught the evaluation criteria for persuasion, they will understand that a persuasive paper is written with the purpose of convincing an audience and that, thus, the writer should provide convincing reasons. Third, students' motivation may be affected as well as their ability to manage the revision task. If students have a clear guide showing what to look for, they may be more engaged in the task, more certain of their ability to complete it, and more certain of their imminent success.

TAKE ACTION!

The same procedure can be used across different genres. The goal is to have both of the following:

1. Clear evaluation criteria (e.g., in procedural texts, an introduction that explains what is to be discussed and what materials are used, a middle section that includes the steps in a logical order with explanations, and a conclusion with an evaluation so the reader will know whether the process was successful)
2. Time to practice the application of those criteria in well-written and poorly written papers with teacher feedback

REFERENCES

Beach, R., & Friedrich, T. (2006). Response to writing. In C.A. MacArthur, S. Graham, & J. Fitzgerald (Eds.), *Handbook of writing research* (pp. 222–235). New York, NY: Guilford.

Bereiter, C., & Scardamalia, M. (1987). *The psychology of written composition*. Hillsdale, NJ: Erlbaum.

Boscolo, P., & Ascorti, K. (2004). Effects of collaborative revision on children's ability to write understandable narrative texts. In L. Allal, L. Chanquoy, & P. Largy (Eds.), *Revision: Cognitive and instructional processes* (pp. 157–170). Dordrecht, The Netherlands: Kluwer Academic.

Brakel, V.L. (1990). The revising processes of sixth-grade writers with and without peer feedback. *The Journal of Educational Research*, *84*(1), 22–29. doi:10.1080/00220671.1990.10885987

Cho, K., & MacArthur, C. (2011). Learning by reviewing. *Journal of Educational Psychology*, *103*(1), 73–84. doi:10.1037/a0021950

DiPardo, A., & Freedman, S.W. (1988). Peer response groups in the writing classroom: Theoretic foundations and new directions. *Review of Educational Research*, *58*(2), 119–149. doi:10.3102/00346543058002119

Dyson, A.H. (1997). *Writing superheroes: Contemporary childhood, popular culture, and classroom literacy*. New York, NY: Teachers College Press.

Englert, C.S., & Mariage, T.V. (1991). Shared understandings: Structuring the writing experience through dialogue. *Journal of Learning Disabilities*, *24*(6), 330–342. doi:10.1177/002221949102400602

Englert, C.S., Mariage, T.V., & Dunsmore, K. (2006). Tenets of sociocultural theory in writing instruction research. In C.A. MacArthur, S. Graham, & J. Fitzgerald (Eds.), *Handbook of writing research* (pp. 208–221). New York, NY: Guilford.

Englert, C.S., Raphael, T.E., Anderson, L.M., Anthony, H.M., & Stevens, D.D. (1991). Making strategies and self-talk visible: Writing instruction in regular and special education classrooms. *American Educational Research Journal*, *28*(2), 337–372. doi:10.3102/00028312028002337

Fitzgerald, J. (1987). Research on revision in writing. *Review of Educational Research*, *57*(4), 481–506. doi:10.3102/00346543057004481

Fitzgerald, J., & Markham, L. (1987). Teaching children about revision in writing. *Cognition and Instruction*, *4*(1), 3–24. doi:10.1207/s1532690xci0401_1

Graham, S. (1997). Executive control in the revising of students with learning and writing difficulties. *Journal of Educational Psychology*, *89*(2), 223–234.

Graham, S. (2006). Strategy instruction and the teaching of writing: A meta-analysis. In C.A. MacArthur, S. Graham, & J. Fitzgerald (Eds.), *Handbook of writing research* (pp. 187–207). New York, NY: Guilford.

Graham, S., Bollinger, A., Olson, C., D'Aoust, C., MacArthur, C., McCutchen, D., & Olinghouse, N. (2012). *Teaching elementary school students to be effective writers* (NCEE 2012-4058). Washington, DC: National Center for Education Evaluation and Regional Assistance, Institute of Education Sciences, U.S. Department of Education. Retrieved from http://ies.ed.gov/ncee/wwc/PracticeGuide.aspx?sid=17

Graham, S., McKeown, D., Kiuhara, S., & Harris, K.R. (2012). A meta-analysis of writing instruction for students in the elementary grades. *Journal of Educational Psychology*, *104*(4), 879–896. doi:10.1037/a0029185

Hayes, J.R. (1996). A new framework for understanding cognition and affect in writing. In C.M. Levy & S. Ransdell (Eds.), *The science of writing* (pp. 1–27). Mahwah, NJ: Erlbaum.

Hayes, J.R. (2004). What triggers revision? In L. Allal, L. Chanquoy, & P. Largy (Eds.), *Revision, cognition, and instructional processes* (pp. 9–20). Dordrecht, The Netherlands: Kluwer Academic.

Hayes, J.R. (2006). New directions in writing theory. In C.A. MacArthur, S. Graham, & J. Fitzgerald (Eds.), *Handbook of writing research* (pp. 28–40). New York, NY: Guilford.

Hayes, J.R., & Flower, L. (1980). Identifying the organization of writing processes. In L. Gregg & E.R. Steinberg (Eds.), *Cognitive processes in writing* (pp. 3–30). Hillsdale, NJ: Erlbaum.

Hayes, J.R., Flower, L., Schriver, K.A., Stratman, J., & Carey, L. (1987). Cognitive processes in revision. In S. Rosenberg (Ed.), *Advances in applied psycholinguistics: Vol. 2. Reading, writing, and language processing* (pp. 176–240). New York, NY: Cambridge University Press.

Lundstrom, K., & Baker, W. (2009). To give is better than to receive: The benefits of peer review to the reviewer's own writing. *Journal of Second Language Writing*, *18*(1), 30–43. doi:10.1016/j.jslw.2008.06.002

MacArthur, C.A. (2011). Strategies instruction. In K.R. Harris, S. Graham, & T. Urdan (Eds.), *Educational psychology handbook: Vol. 3. Applications of educational psychology to learning and teaching* (pp. 379–401). Washington, DC: American Psychological Association.

MacArthur, C.A. (2012). Evaluation and revision processes in writing. In V.W. Berninger (Ed.), *Past, present, and future contributions of cognitive writing research to cognitive psychology* (pp. 461–483). London, UK: Psychology.

MacArthur, C.A. (2016). Instruction in evaluation and revision. In C.A. MacArthur, S. Graham, & J. Fitzgerald (Eds.), *Handbook of writing research* (2nd ed., pp. 272–287). New York, NY: Guilford.

MacArthur, C.A., & Graham, S. (2016). Writing research from a cognitive perspective. In C.A. MacArthur, S. Graham, & J. Fitzgerald (Eds.), *Handbook of writing research* (2nd ed., pp. 24–40). New York, NY: Guilford.

MacArthur, C.A., Graham, S., & Schwartz, S. (1991). Knowledge of revision and revising behavior among students with learning disabilities. *Learning Disability Quarterly*, *14*(1), 61–73. doi:10.2307/1510373

Magnifico, A.M. (2010). Writing for whom? Cognition, motivation, and a writer's audience. *Educational Psychologist*, *45*(3), 167–184. doi:10.1080/00461520.2010.493470

Midgette, E., Haria, P., & MacArthur, C. (2008). The effects of content and audience awareness goals for revision on the persuasive essays of fifth- and eighth-grade students. *Reading and Writing*, *21*(1), 131–151. doi:10.1007/s11145-007-9067-9

Moore, N.S., & MacArthur, C.A. (2012). The effects of being a reader and of observing readers on fifth-grade students'

argumentative writing and revising. *Reading and Writing*, *25*(6), 1449–1478. doi:10.1007/s11145-011-9327-6
National Governors Association Center for Best Practices & Council of Chief State School Officers. (2010). *Common Core State Standards for English language arts and literacy in history/social studies, science, and technical subjects*. Washington, DC: Authors.
Philippakos, Z.A. (2012). *Effects of reviewing on fourth- and fifth-grade students' persuasive writing and revising* (Doctoral dissertation). Retrieved from WorldCat Dissertations and Theses database. (OCLC 830832350)
Philippakos, Z.A., & MacArthur, C.A. (2016a). The use of genre-specific evaluation criteria for revision. *The Language and Literacy Spectrum*, *26*, 41–52.
Philippakos, Z.A., & MacArthur, C.A. (2016b). The effects of giving feedback on the persuasive writing of fourth- and fifth-grade students. *Reading Research Quarterly*, *51*(4), 419–433. doi:10.1002/rrq.149
Philippakos, Z.A., MacArthur, C.A., & Coker, D.L., Jr. (2015). *Developing strategic writers through genre instruction: Resources for grades 3–5*. New York, NY: Guilford.
Pritchard, R.J., & Honeycutt, R.L. (2006). The process approach to writing instruction: examining its effectiveness. In C.A. MacArthur, S. Graham, & J. Fitzgerald (Eds.), *Handbook of writing research* (pp. 275–290). New York, NY: Guilford.
Rijlaarsdam, G., & Couzijn, M. (2000). Writing and learning to write: A double challenge. In R. Simons, J. Van der Linden, & T. Duffy (Eds.), *New learning* (pp. 157–189). Dordrecht, The Netherlands: Kluwer Academic.
Rijlaarsdam, G., Couzijn, M., Janssen, T., Braaksma, M., & Kieft, M. (2006). Writing experiment manuals in science education: The impact of writing, genre, and audience. *International Journal of Science Education*, *28*(2–3), 203–233. doi:10.1080/09500690500336932
Topping, K. (1998). Peer assessment between students in colleges and universities. *Review of Educational Research*, *68*(3), 249–276. doi:10.3102/00346543068003249
Topping, K. (2005). Trends in peer learning. *Educational Psychology*, *25*(6), 631–645. doi:10.1080/01443410500345172
Tsivitanidou, O.E., Zacharia, Z.C., & Hovardas, T. (2011). Investigating secondary school students' unmediated peer assessment skills. *Learning and Instruction*, *21*(4), 506–519. doi:10.1016/j.learninstruc.2010.08.002

MORE TO EXPLORE

- Graham, S., Harris, K.R., & Chambers, A.B. (2016). Evidence-based practice and writing instruction: A review of reviews. In C.A. MacArthur, S. Graham, & J. Fitzgerald (Eds.), *Handbook of writing research* (2nd ed., pp. 211–226). New York, NY: Guilford.
- Graham, S., Hebert, M., & Harris, K.R. (2015). Formative assessment and writing: A meta-analysis. *The Elementary School Journal*, *115*(4), 523–547.
- Harris, K.R., & Graham, S. (2009). Self-regulated strategy development in writing: Premises, evolution, and the future. *British Journal of Educational Psychology Monograph Series II*, *6*, 113–135.

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