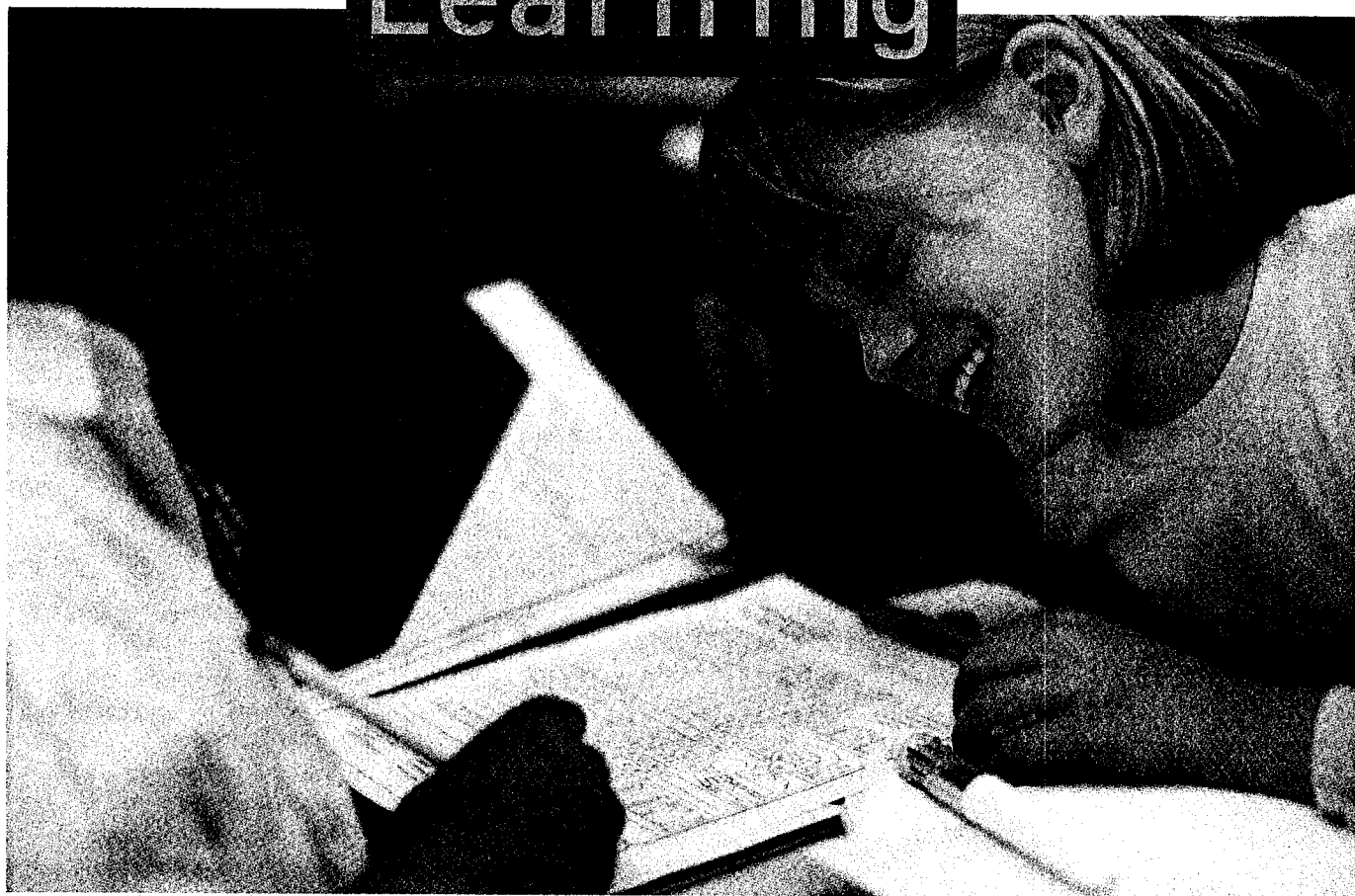


Using Rubrics to Promote Thinking and Learning



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Instructional rubrics help teachers teach as well as evaluate student work. Further, creating rubrics with your students can be powerfully instructive.

Heidi Goodrich Andrade

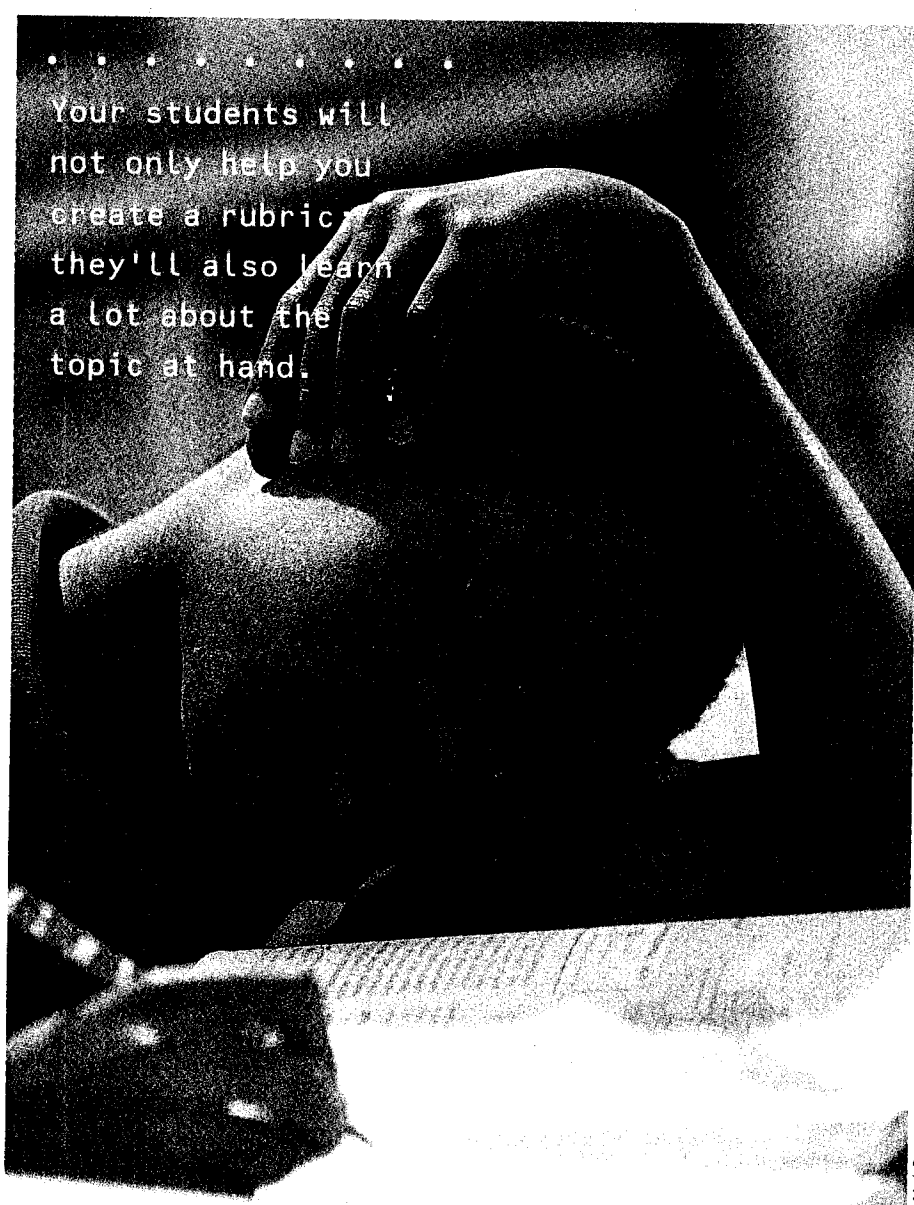
Rubrics make assessing student work quick and efficient, and they help teachers justify to parents and others the grades that they assign to students. At their very best, rubrics are also teaching tools that support student learning and the development of sophisticated thinking skills. When used correctly, they serve the

purposes of learning as well as of evaluation and accountability. Like portfolios, exhibitions, and other authentic approaches to assessment, rubrics blur the distinction between instruction and assessment. For this reason, I refer to them as instructional rubrics.

What Is an Instructional Rubric?

An instructional rubric is usually a one- or two-page document that describes varying levels of quality, from excellent to poor, for a specific assignment. It is usually used with a relatively complex assignment, such as a long-term project, an essay, or a research paper. Its purposes are to give students informative feedback about their works in progress and to give detailed evaluations of their final products.

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Although the format of an instructional rubric can vary, all rubrics have two features in common: (1) a list of criteria, or "what counts" in a project or assignment; and (2) gradations of quality, with descriptions of strong, middling, and problematic student work.

Figure 1 is an example of an instructional rubric that I've used in 7th and 8th grade humanities and English classes to support students as they write a persuasive essay. The criteria are the claim made in the essay, the reasons given in support of the claim, the consideration of reasons against the claim, organization, voice and tone, word choice, sentence fluency, and conventions.

I describe four levels of quality but do not give them labels. In my experience, satisfactory labels are hard to come by, and it is obvious at a glance that a 4 is what everyone should try to achieve and a 1 is something to avoid. Some teachers indicate a cutoff point on the rubric, for instance, by drawing a box around the level that is considered acceptable.

The instructional rubric in Figure 1 has the two basic components of a rubric—criteria and gradations of quality. The second and third criteria, "Reasons in Support of the Claim" and "Reasons Against the Claim," emphasize good thinking—an emphasis missing from many rubrics. They not only tell

students that good critical thinking must be evident in their essays, but also guide them in how (and how not) to do it so that the rubric serves as an instructional tool as well as an evaluative one.

In addition, the gradations of quality describe problems that students encounter as they write, such as not stating their claim clearly enough for a reader to understand (level 2 of the first criterion), and using the same words over and over (level 1 of the sixth criterion). A rubric that reflects and reveals problems that students experience is more informative than one that either describes mistakes they don't recognize or defines levels of quality so vaguely that it is practically meaningless ("poorly organized" or "boring"). The gradations of quality allow students to spot weaknesses in their writing and give them concrete ways to improve their shortcomings.

Why Use Instructional Rubrics?

Rubrics have become very popular, a recognizable trend in education. Experienced teachers, however, have seen numerous trends rise and fall over the years and quite reasonably ask, "Why bother with this one?" My research and experience provide several answers.

Instructional rubrics are easy to use and to explain. Rubrics make sense to people at a glance; they're concise and digestible. For these reasons, teachers like to use them to assess student work, parents appreciate them when helping their children with homework, and students often request them when given a new assignment. After using a rubric for one project, a student remarked when assigned a second project, "You know, one of those things with the little boxes would be handy right now." This is not an uncommon request from students experienced with rubrics.

Instructional rubrics make teachers' expectations very clear. Traditionally, we educators have kept our criteria and standards to ourselves. The answers to the test were secret, and teachers tended not to articulate what counted when they gave grades. When a 5th grade girl I know came home with a shockingly bad report card, her father

was dismayed. "Look, you're a smart child, you've always done well in school. Two weeks ago I asked you how you were doing in school and you said 'Fine, Dad.' How can you bring home this report card?" Sobbing, the child told him, "Dad, I don't know what the grades count on."

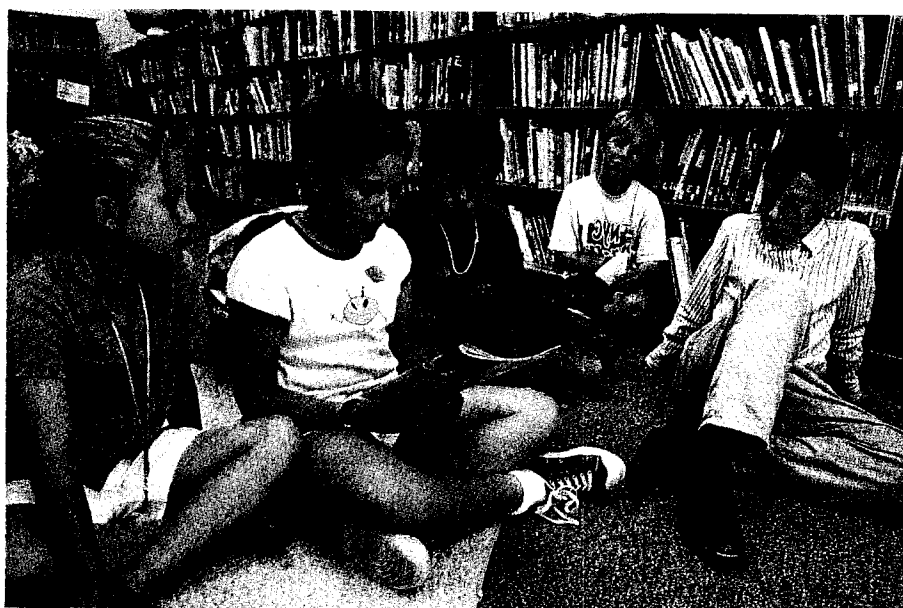
We often expect students to just *know* what makes a good essay, a good drawing, or a good science project, so we don't articulate our standards for them. If that child's teacher supplied written expectations—maybe in the form of a rubric—she would have known what counts, and she would have been able to do better work. That little girl needed help figuring out what the grades "count on." Some students figure that out on their own, but others need it written down or otherwise communicated to them. Instructional rubrics are one way to do that.

Instructional rubrics provide students with more informative feedback about their strengths and areas in need of improvement than traditional forms of assessment do. Imagine that your employer is about to evaluate you. You have a choice between receiving a letter grade or a rubric with statements circled that most closely describe your performance. Which kind of assessment would you choose? Most people choose the rubric, knowing that it will tell them a lot more about their performance. The same is true for students: A well-written instructional rubric—one that describes the kinds of mistakes they tend to make, as well as the ways in which their work shines—gives them valuable information. Students can learn from an instructional rubric in a way that they can't learn from a grade.

Instructional rubrics support learning. A few years ago I investigated the effects of rubrics and self-assessment on learning and metacognition—the act of monitoring and regulating one's own thinking (Goodrich, 1996). Forty 7th graders were assigned a classification task. I gave half the students an instructional rubric and periodically asked them to assess their reading comprehension, the classification

system they set up, their explanation of the system, and so on. I asked the other half to do the same classification task, but I did not give them a rubric or ask them to assess their own work.

When the students had finished the task, I gave them a traditional quiz to test for basic content knowledge. Test scores showed that the students who used the rubric to assess themselves learned more. This is especially meaningful because I spent fewer than 30 minutes with each student, and the task did not emphasize memorizing facts.



Nonetheless, students using the rubric learned more than students who did not. I concluded that self-assessment supported by a rubric was related to an increase in content learning.

Instructional rubrics support the development of skills. Another study (Andrade, 1999) looked at the effects of instructional rubrics on 8th graders' writing skills. Two groups of students wrote three essays over several months. One group received a rubric before they began writing; the other did not. The first group tended to receive better scores on two of the three essays; for one essay, the differences were statistically significant. Simply handing out and explaining a rubric seemed to help students write better, though improvements were not guaranteed. It appeared that more intensive work with the

rubric might be helpful.

Instructional rubrics support the development of understanding. I wanted to know whether students would internalize the criteria contained in the rubrics and thereby develop an understanding of good writing. Several weeks after students wrote the third essay for this study, I asked them, "When your teachers read your essays and papers, how do they decide whether your work is excellent (A) or very good (B)?"

There were striking differences

between the two groups. Those who did not use a rubric tended to have a vaguer notion of how teachers determined their grades:

Well, they give us the assignment, and they know the qualifications, and if you have all of them, you get an A and if you don't get any, you get an F and so on.

This student knows that the teacher has her standards or "qualifications," but he doesn't suggest that he knows what they are. The students using rubrics, however, tended to refer to rubrics, "root braks," or "ruperts" as grading guides and often listed criteria from rubrics they had seen:

The teacher gives us a paper called a rubric [with] information of how to do our essays good to deserve an A. If

they were to give it an *A*, it would have to be well-organized, neat, good spelling, no errors, and more important, the accurate information it gives. For a *B* it's neat, organized, some errors, and pretty good information but not perfect.

Another student wrote:

An *A* would consist of a lot of good expressions and big words. He/she also uses relevant and rich details and examples. The sentences are clear, they begin in different ways, some are longer than others, and no fragments. Has good grammar and spelling. A *B* would be like an *A* but not as much would be on the paper.

Several of the criteria mentioned by these students are straight from the rubrics that they used during the study. In comparing criteria mentioned by students, I found that students with no experience with rubrics tended to mention fewer and more traditional criteria. Students who had used rubrics tended to mention the traditional criteria, plus a variety of other criteria—often the criteria from their rubrics. I concluded that instructional rubrics may help students understand the qualities of a good essay.

Instructional rubrics support good thinking. In the study previously mentioned, I asked more than 100 eighth grade students to write a persuasive essay. Some of the students received an instructional rubric similar to Figure 1; some didn't. The rubric included three thinking-centered criteria: "Make a claim," "Give reasons in support of your claim," and "Consider reasons against your claim."

The third criterion—considering the other side of an argument and explaining why your own position still holds up—is a sophisticated thinking skill. That kind of thinking is something adults and students tend not to do. Rather, we make an argument, defend it, and hope for the best. Good thinkers, in contrast, know that they also have to anticipate the other side of an argument and be prepared to explain why it doesn't undermine the claim they are making. When I included that criterion in the rubric for the persuasive essay,

the students who used the rubric tended to consider the reasons against their claim. Students without the rubric did not consider the reasons against their claim. Thinking-centered rubrics seemed to help students think more deeply.

How Do You Make an Instructional Rubric?

Designing an instructional rubric takes time. Needing a rubric *tomorrow*, you're likely to sit down and try to crank one out. That might work if you have vast experience with rubric design, but if it doesn't, don't despair. Take some class time and create a rubric with your students. Thinking and talking about the qualities of good and poor work is powerfully instructive. Your students will not only help you come up with a rubric; they will also learn a lot about the topic at hand.

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Test scores show that students who use the rubric to assess themselves learn more.

1. Look at models. Review examples of good and poor work on a project like the one your students are about to undertake. For example, if they are going to give an oral presentation, show them an excellent presentation—perhaps a televised speech—and a flawed presentation—perhaps a videotaped speech from one of last year's students (if you can get permission to use it). Ask students what makes the good one good and the other one weak. Record their responses during the discussion.

2. List criteria. Tell students that you're going to ask them to do a similar project and you want to think together about how you should assess it. Students will draw on the list generated during the discussion of the models. Track their ideas under the heading "Criteria" or "What Counts." When they appear to run out of ideas, ask them to think about less obvious criteria. If they haven't listed criteria that you think are important, such as

thinking-centered criteria, add them yourself, and explain why they're important. District, state, and national standards are often good resources for thinking-centered criteria.

3. Pack and unpack criteria. You are likely to end up with a long list of criteria, many of which may relate to one another or even overlap. After class, take time to combine criteria. Avoid creating categories that are too big, and don't bury criteria that you want to emphasize. For example, if you are assigning a written essay and teaching students about paragraph format, you may want to state proper formatting as a separate criterion.

4. Articulate levels of quality. Drawing again on students' comments during the discussion of good and poor models, sketch out four levels of quality for each criterion. You might try a technique that I learned from a teacher in

Gloucester, Massachusetts. I call it "yes; yes, but; no, but; no." Try using those four terms as sentence stems. For example, if the criterion is "Briefly summarize the plot of the story," the four levels might be the following:

Level 4—"Yes, I briefly summarized the plot."

Level 3—"Yes, I summarized the plot, but I also included some unnecessary details or left out key information."

Level 2—"No, I didn't summarize the plot, but I did include some details from the story."

Level 1—"No, I didn't summarize the plot."

Don't worry about getting it exactly right; just capture some of the language describing strong work and the problems that students typically encounter. Ask students to tell you about the kinds of mistakes that they have made in the past.

5. Create a draft rubric. After class, draft a rubric that includes the list of criteria that you generated with your class and expands on the levels of

quality. Don't get too attached to this draft—you are likely to revise it more than once.

6. *Revise the draft.* Show the draft to your students and ask for their comments. They will probably ask you to make a few revisions.

After revision, the rubric is ready to use. Hand it out with the assignment and have students use it when assessing their own and their peers' first and second drafts. It's important that you use the rubric to assign grades. To translate a rubric into

grades, simply circle the appropriate level of quality for each criterion, change the 4s, 3s, 2s, and 1s into the number that represents the middle of the range for a grade ($A = 93$, $B = 86$, and so on), average the scores, and assign a grade accordingly.

FIGURE 1

Instructional Rubric for a Persuasive Essay

Criteria	Gradations of Quality			
	4	3	2	1
The claim	I make a claim and explain why it is controversial.	I make a claim but don't explain why it is controversial.	My claim is buried, confused, and/or unclear.	I don't say what my argument or claim is.
Reasons in support of the claim	I give clear and accurate reasons in support of my claim.	I give reasons in support of my claim, but I overlook important reasons.	I give 1 or 2 weak reasons that don't support my claim and/or irrelevant or confusing reasons.	I don't give reasons in support of my claim.
Reasons against the claim	I discuss the reasons against my claim and explain why it is valid anyway.	I discuss the reasons against my claim but neglect some or don't explain why the claim still stands.	I say that there are reasons against the claim, but I don't discuss them.	I don't acknowledge or discuss the reasons against the claim.
Organization	My writing has a compelling opening, an informative middle, and a satisfying conclusion.	My writing has a beginning, a middle, and an end.	My organization is rough but workable. I may sometimes get off topic.	My writing is aimless and disorganized.
Voice and tone	It sounds like I care about my argument. I tell how I think and feel about it.	My tone is OK, but my paper could have been written by anyone. I need to tell how I think and feel.	My writing is bland or pretentious. There is either no hint of a real person in it, or it sounds like I'm faking it.	My writing is too formal or informal. It sounds like I don't like the topic of the essay.
Word choice	The words that I use are striking but natural, varied, and vivid.	I make some fine and some routine word choices.	The words that I use are often dull or uninspired or sound like I'm trying too hard to impress.	I use the same words over and over. Some words may be confusing.
Sentence fluency	My sentences are clear, complete, and of varying lengths.	I have well-constructed sentences. My essay marches along but doesn't dance.	My sentences are often awkward, run-ons, or fragments.	Many run-on sentences and sentence fragments make my essay hard to read.
Conventions	I use correct grammar, punctuation, and spelling.	I have a few errors to fix, but I generally use correct conventions.	I have enough errors in my essay to distract a reader.	Numerous errors make my paper hard to read.

How Do Rubrics Support Thinking and Learning?

Earlier I suggested that students may need more intensive work with a rubric if they are to perform better consistently. To check this out, I worked with several talented teachers in San Diego, including Anne Gramm, to develop a process of student self-assessment. The process involves students in using an instructional rubric to take an honest, critical look at their own work.

I gave both 7th and 8th grade students an instructional rubric along with their essay assignment. Some of the classes received two self-assessment lessons. During the lessons, students looked at the rubric, then at their own work, and identified material in their work that demonstrated the criteria. For example, students wrote a historical-fiction essay using, as one criterion, "Bring the Time and Place Your Character Lived Alive." During the self-assessment lesson, I asked students to underline with a green marker the words

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Data suggest that self-assessment has a positive effect on many students' writing.

time and *place* in their rubric. I asked them to use the same marker to underline in their essays the information about the time and place in which their characters lived. Confident that this would take only a second, students turned to their essays with green markers at the ready—and often couldn't find the information they were looking for. To their amazement, it was not there. Apparently, because the information was in their heads, they thought it was also on their paper. Self-assessment required that they look to see what was and wasn't there.

We went through this process with every criterion on their rubric, using different colored markers. It was quite an eye-opener for students. The results from the data analyses suggest that the self-assessment process had a positive

effect on many students' writing (Andrade & Delamater, 1999). I now recommend a careful, specific self-assessment technique in any process of ongoing assessment, especially those supported by instructional rubrics.

A teacher recently told me after a workshop,

I previously found rubrics to be very unspecific, time-consuming, and an annoyance to assessment. I now like rubrics and am excited about using a few.

I hope that you, too, feel motivated and able to design and use instructional rubrics with your students. Educators can enhance student learning when they go beyond the most basic application of rubrics by including students in designing rubrics, by seeking out and including thinking-centered criteria, and by engaging students in serious self- and peer assessment. Blurring the distinction between instruction and assessment through the use of rubrics has a powerful effect on your teaching and, in turn, on your students' learning. ■

References

- Andrade, H. (1999). *The effects of instructional rubrics on student writing*. Manuscript in preparation.
- Andrade, H., & Delamater, B. (1999). *Gender and the role of rubric-referred self-assessment in learning to write*. Manuscript submitted for publication.
- Goodrich, H. (1996). *Student self-assessment: At the intersection of metacognition and authentic assessment*. Unpublished doctoral dissertation, Harvard University, Cambridge, MA.

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