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Assessment-Driven Improvements in Middle School Students' Writing

***This We Believe* Characteristics**

- High expectations for every member of the learning community
- Students and teachers engaged in active learning
- Assessment and evaluation programs that promote quality learning

*Denotes the corresponding characteristics from NMSA's position paper, *This We Believe*, for this article.

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> One lesson I've learned is that this is a process; it does not change students' writing overnight. But if you make it a continuous effort and incorporate it in all the writing you complete, the students will slowly develop their writing skills and their writing will improve. The most valuable lesson I learned is that students really do want to be successful and can rise to a challenge. (Mrs. Buff, eighth grade ELA teacher)

In the fall of 2005 the principal and teachers at Knickerbacker Middle School (KMS) were worried. KMS was a "School in Good Standing" but had not hit federal or state benchmarks because of low subgroup scores on the English Language Arts (ELA) test—especially scores received by economically disadvantaged students, about half of this urban school's student population. KMS would be identified as a "School in Need of Improvement" in 2006 if the ELA scores did not improve. This article chronicles a successful attempt by the authors and their colleagues to teach writing by making improvements in the assessment of writing in the classroom.

Our goals: What we attempted and why

Our work together began in the fall of 2005, when Shaun Paolino, the principal, invited Heidi Andrade to help improve students' writing skills and scores. To meet the overarching goal of improving the assessment of writing at KMS, Prof. Andrade collaborated with the sixth, seventh, and eighth grade teachers of English and social studies. We set three goals:

1. Make assessment processes, criteria, and standards crystal clear to students.
2. Provide frequent, useful feedback to students about the quality of their work via teacher, peer, and self-assessment.
3. Use the assessments to analyze the strengths and weaknesses in students' work and to plan instruction.

These three goals are grounded in the literature on formative assessment. Most people think of assessment as the test at the end of a unit that tells teachers whether or not students "got it." That is a summative view of assessment, and tells only part of the story. Formative assessments happen before and while students work on assignments. A significant element of effective classroom assessment is formative—the kind of ongoing, regular feedback about student work

that leads to adjustment and revision by both the teacher and the students (Center for Educational Research & Innovation, 2005).

A formative conception of assessment honors the crucial role of feedback in the development of understanding and skill building. This perspective on assessment is common in sports and in the arts, where students expect and receive frequent comments from coaches and directors about their performance (White, 1998). However, in spite of research that shows that feedback promotes learning and achievement (Black & Wiliam, 1998; Butler & Winne, 1995; Chappuis, 2005), many students get little informative feedback about their work. Often, this is because few teachers have the luxury of regularly responding to each student's work and learning. Fortunately, research shows that students themselves can be useful sources of feedback via peer and self-assessment (Andrade & Boulay, 2003; Andrade, Du, & Wang, 2008; O'Donnell & Topping, 1998).

Peer and self-assessment are key elements in formative assessment, because they involve students in thinking about the quality of their own and each others' work, rather than relying on their teachers as the sole source of evaluative judgment. There are many ways to scaffold effective peer and self-assessment. Self-assessment can be as simple as students circling the text on a rubric that best describes their work and attaching the marked-up rubric to the assignment before handing it in (Andrade & Boulay, 2003). Peer assessment is often done by giving rubric-referenced verbal feedback in class (O'Donnell & Topping, 1998). Regardless of how it is done, neither the peer nor the self-assessments count toward final grades, because this is formative, not summative, assessment.

Our work at KMS taught us that formative assessment can play a key role in helping students learn to write. Predictably, however, assessment was not a silver bullet: We had to define and address other important issues before students could not only learn but also demonstrate what they had learned on the ELA test.

The process: What we did and how

The collaboration between a university consultant and Knickerbacker Middle School teachers began after a brief workshop in October of 2005 that introduced the notion of assessment as a moment of learning, research on the ways in which feedback can promote learning and achievement, and rubric-referenced assessment techniques, including peer and self-assessment. Monthly meetings started in November. The meetings were attended by the co-authors of this article and six other teachers, including one special education teacher. Held after school from 2:15 to 3:30, the meetings initially focused on finding or developing rubrics for writing and using them with students.

Designing a common rubric for writing

In February of 2006 the team decided to create consistency across classes and grade levels by designing a common writing rubric. Drawing on the New York State standards for English/Language Arts and the 6 + 1 Traits of Writing (Northwest Regional Educational Laboratory, 2008; see Figure 1), we developed two rubrics (Figures 2 & 3). The rubrics are nearly identical except for slightly more sophisticated standards for sentence fluency and word choice on the eighth grade version. The sixth grade rubric is used in grade six and in the first half of the seventh grade year. The eighth grade rubric is used in the second half of the seventh grade year as well as in eighth grade. Joe Terry, one of the sixth grade teachers, describes how he began using the rubric with his students:

> I realized that it would not be that difficult to adapt my teaching to the rubrics. I was using a 4, 3, 2, 1 method, which I had been trained to use to evaluate social studies essays, and I had already adapted that method to my ELA instruction. The new rubric had more categories than I had used before. As I began experimenting with it, I only used some of the categories. I left off voice and word choice and decided to concentrate on the organization of the essay. After a couple of tries, I added voice and word choice.

Figure 1

The 6 + 1 Traits of Writing®, excerpted from the NWREL website (http://www.nwrel.org)

Ideas: The ideas are the heart of the message, the content of the piece, the main theme, together with all the details that enrich and develop that theme.

Organization: Organization is the internal structure of a piece of writing, the thread of central meaning, the pattern, so long as it fits the central idea.

Voice: Voice is the writer coming through the words, the sense that a real person is speaking to us and cares about the message. It is the heart and soul of the writing, the magic, the wit, the feeling, the life and breath.

Word Choice: Word choice is the use of rich, colorful, precise language that communicates not just in a functional way, but in a way that moves and enlightens the reader.

Sentence Fluency: Sentence fluency is the rhythm and flow of the language, the sound of word patterns, the way in which the writing plays to the ear, not just to the eye.

Conventions: Conventions are the mechanical correctness of the piece—spelling, grammar and usage, paragraphing (indenting at the appropriate spots), use of capitals, and punctuation.

Figure 2

Generic grade six writing rubric

Figure 3

Generic grade eight writing rubric

Teaching peer and self-assessment

Knowing that simply handing out rubrics would not magically produce good writers and high test scores, we concerned ourselves with the matter of engaging students in carefully considering the strengths and weaknesses of their works in progress, according to the standards set in the rubrics. During the monthly meetings we shared approaches to peer and self-assessment. Meghan D'Adamo, a sixth grade teacher, videotaped her students doing a "fishbowl," in which two students gave and received feedback while Mrs. D'Adamo coached, and the rest of the class observed. The videotape was shared with other interested teachers. Prof. Andrade was also videotaped doing a demonstration of her favorite approach to self-assessment in a seventh grade classroom, during which she guided students in using colored pencils to determine which criteria on a rubric their drafts had and had not yet met (see Andrade & Boulay, 2003, for details).

All of the teachers agreed to implement some form of peer and/or self-assessment in their own classrooms, according to their judgments about what would work best with their students. Colleen Buff, one of the eighth grade teachers, took the following approach:

> I began the school year by introducing the rubric to my eighth grade students and using it on every writing assignment we completed. At the beginning of each assignment, we would review each criterion and the specific aspects of the

> assignment to be thinking about when writing. After students wrote rough drafts, we came back together as a class and began the process of self-assessment. The process had to be scaffolded, but students began to develop the skills necessary to really look at their writing and determine its strengths and weaknesses.
>
> I began the self-assessment process with students receiving model essay papers. Together we used the rubric and walked through each model essay. Students color coded their rubric using colored pencils, and then the class color coded the model essays. After working through model essays several times, the students did the same color coding to their own essays. This technique allowed students to visualize which criteria they were strong on and the areas that could be improved. Not only were students looking at their own writing, determining strengths and weaknesses, but they were also enjoying it.
>
> For the first three writing assignments, we walked through this process together, and then slowly I gave up control and let the students work through the process on their own. After each new writing assignment, the writing I was receiving from students was better than the previous one.

Marilyn Erano, another eighth grade teacher, incorporated the writing rubric into a peer editing technique she had been using for years.

> Working in pairs or groups of three, students switched papers and edited each other's work. They use the COACH process in addition to the rubric. COACH is an acronym for Commend (offer praise), Observe (note ways in which their writing is similar to the writing they are editing), Ask (ask the writer questions about what he or she meant or intended), Consider (always be considerate of the writer's feelings), and Help (offer help in a useful way).
>
> Students responded well to the feedback generated with this process. I have found that it works especially well with the rubric. To no one's surprise, students seem more interested in each other's comments than in mine. They were surprisingly willing to revise. In the past, they would rather have their teeth pulled with a pair of rusty pliers than revise a paper. I now sense that the idea of revision may not have been planted firmly enough in the writing process. Without the rubric and the COACH process, they may not have fully understood what specific changes to make as they revised, or how to make them.

At each monthly meeting the team discussed the teachers' experiments with the rubrics and with peer and self-assessment, talked about what did and did not work, and planned next steps.

Checking validity and reliability

In April of 2006 the team turned its attention to the validity and reliability of the assessments. We already knew that our rubrics reflected the New York State standards, so they passed one test of validity. Another important quality to test was the rubrics' accessibility to students. We informally polled the students for their reactions to the rubrics. Students had a few questions about the meanings of some words, which their teachers addressed. Other than that, students told us that they understood and valued the rubrics. The teachers' classroom observations of peer and self-assessment sessions confirmed the students' claims.

To examine the reliability of our assessments, we examined the similarities and differences in grading with the rubrics. Was everyone using the rubrics in ways that produced similar grades, or were we grading idiosyncratically and, perhaps, unfairly? Lisa Puckey, a seventh grade teacher, volunteered to bring copies of two students' biographical essays on Malcolm X to a meeting. We each scored an essay independently and then compared scores. We were surprised to discover

that our scores tended to be close. Though we did not strive for perfect inter-rater reliability, given the nature of writing, minor changes to the wording and organization of the rubric resulted in an even better assessment tool.

Using assessment results to plan instruction

In the fall of 2006 we turned to our third goal, which was to use the information provided by the rubrics to evaluate trends in students' performances and guide instructional decisions. Mr. Terry proposed an approach that was elegant in its simplicity:

> I have always evaluated essays by looking for trends. With previous experience in item analysis, I devised a way to chart the class trends using our generic rubric. I simply charted the number of 4s, 3s, 2s, and 1s received by my students for each criterion on the rubric. The first essay I looked at this way showed a weakness in paragraphing for that particular class. Seeing this trend helped me to design a group lesson based on the common weakness. That way, no student needed to feel singled out.

The other teachers adopted or adapted Mr. Terry's approach to pinpointing weaknesses in student writing. Mrs. Erano, for example, used peer assessment data to make on-the-spot decisions about targeted, short lessons, which motivated her classes to write better.

> I would ask students to raise their hands if they got a 1, 2, 3, or 4 for a certain criterion on the rubric. If the hands showed that a third or a quarter of the students needed improvement in paragraphing or organization, I demonstrated the way I would edit if I were peer editing. Students would give me additional suggestions to improve the example on the overhead, and I incorporated their suggestions in front of their eyes.
>
> An unexpected rivalry soon sprang up between two of my classes, and scores on the rubric became a way for them to win a contest. When I told one class that the other class did exceptionally well on paragraphing—"only three kids got threes and the rest all got fours!"—the news would not sit well with them. One class would work harder to "catch" the other class. Of course, I had to tell the winning class that they "owned" organization on that day, but they would have to keep working to stay on top. Being able to tally the scores quickly made the competition manageable.

As a result of the teachers' experiments with rubric-referenced peer and self-assessment, our subsequent meetings focused on discussing weaknesses in students' writing and sharing resources designed to address them.

Solving the transfer problem

In November of 2006 Mrs. Buff made a distressing discovery: Although her eighth graders were writing more effectively when she scaffolded rubric-referenced formative assessment in the classroom, the quality of what they wrote under practice test conditions was very disappointing. This discovery was especially distressing because the state ELA test was coming up in January. The team devoted a meeting to this problem and identified it as one of transfer: Though students could use the rubric to write well, they did not transfer their new skills to rubricless contexts. Because writing, in general, and the ELA test, in particular, happens in rubricless contexts, we were worried.

We decided to address the transfer problem by teaching students to jog their memories by writing an acronym at the top of their papers before they began writing. With the students' help, we developed the following acronym for the criteria on the writing rubrics: Ideas, Organization, Paragraphs, Voice, Word choice, Sentences, and Conventions became IOPVWSC, which stood for I

Only Play Videogames While Snacking Chips. To reinforce the acronym, Mrs. Buff had her students snack on chips as they wrote. She also spoke with them about the transfer problem:

> The students and I had several discussions about scenarios in which they might be asked to write and how the rubric could be beneficial in each of those situations. Our discussion included students looking at all the writing they had completed up to this point and filling out worksheets that outlined their strengths and weaknesses. This led to an in-depth discussion about why students were struggling with writing and what I could do to help them improve. Students responded honestly to my questions:

1. What is so difficult about writing essays?
    - Finding information to include.
    - Too much writing.
    - Distractions in the room (people talking, it's too hot in the room).
    - Organizing my thoughts.
    - Why do we have to write essays anyway?
2. Why don't you include everything we go over, including the criteria from the rubric?
    - My hand hurts when I write too much.
    - I don't feel like it.
    - I just want to get it done.
    - There is too much information to remember.
    - I think about what I want to write and not how to write it.
    - We're lazy.
3. How can I help you?
    - Have us write essays once a week.
    - More quizzes on the different criteria areas.
    - Five minutes to let our brains rest before we write.
    - A quick review before each essay.
    - Have us review what we read.
    - Give us rewards for improvement.
4. What would help you remember all the criteria?
    - studying; review classes.
    - the IOPVWSC acronym.
    - more free writing time.

> The best response was this:
>
> "I don't think there is much more you can do for us. I think it is us. If we are lazy, we have to just do it. I guess it all really depends on us." I loved that comment because it made me feel like the students noticed how much work had been done to help them, and now it was time for them to step up and make it work. But I wondered how quickly they could shift gears. I truly believed each one of them could write amazing essays, but I still questioned how to get them to do it.

Mrs. Buff decided to take her students' advice and give them rewards for making improvements in their writing. We all knew that extrinsic rewards could undermine the intrinsic reward of writing well, yet it was clear from the students' comments that they wanted and needed more motivation so the risk seemed small. Mrs. Buff set them a challenge: All students in the class had to receive a score of three (out of four) or higher on every criterion on the writing rubric. If they were successful they would receive one free Friday class, including snacks, board games, and video games. In addition, the grade they received on the writing assignment would count as a test grade. Mrs. Buff describes the challenge as a roller-coaster ride of emotions:

The challenge began. The class was given two days to work on the writing assignment. On the first day they completed their outlines and rough drafts. Most students seemed positive and receptive to the challenge. One student, however, was struggling and very negative about the task before him. When I noticed his frustration, I pulled him into the hallway for a quick chat. He communicated to me that he was too nervous to complete the task: He knew he was going to ruin it for the rest of the class. He stated, "There is no way I can get a 3 on every criterion, yeah right, that will never happen, even if I really try."

I made a deal with him and told him it could be our little secret. Since this student struggled academically and had had difficulties with writing in the past, I thought it would be fair that, if he received a two for every criterion, the whole class could still receive the reward. He was relieved and felt confident that he could perform at a level two. As we entered the classroom, he sat down and started feverishly writing his essay. This was the most I had seen him write the whole year.

I collected everyone's rough drafts to preview before the following day's final draft session. That evening I went through the rough drafts and almost had a meltdown. I could not believe how much the students had forgotten to include. I kept questioning whether I had been clear in my expectations. I could not figure out what I was doing wrong. I calmed myself down by remembering that students would be self-assessing the next day. Hopefully, they would find and fix their mistakes at that time.

The following day I briefly reviewed the acronym we were using to remind of us the rubric and asked students to give examples for each criterion. The students then got to work and worked hard and quietly the entire class period. When I graded their final essays I was shocked, elated, and overwhelmed. The students had risen to the challenge. Every single student in the class had scored a three or higher on every criterion on the rubric—including the boy with whom I had made the deal.

What was even more amazing was that the students were just as excited as I was. When I announced the results the next day, I could see the pride they had in their accomplishment. They high fived each other and said, "We did it. We actually did it. Way to go!"

This was the best experience of my teaching career thus far. Never before had I felt that I had reached the students in a way that let them understand their own wonderful accomplishments. I also felt reassured that it is OK to set high expectations for students, because they really will rise to the challenge. Above all, the best lesson learned was to never give up on students. I always have to keep pushing them forward, because it will pay off.

The Payoff

Improvements in in-class writing

Mrs. Buff and the other teachers noticed consistent improvements in the processes and products of students' writing. Mr. Terry, for example, observed the ways in which knowing what counts and engaging in self-assessment tended to lead students to work harder at writing well:

It is not uncommon to see more students looking for the thesaurus to find that enchanting word that they can't seem to put their finger on. For instance, one of my students was writing about horses in a parade. Instead of saying, "The horse looked magnificent," she wrote, "The Lipizzaner stallions were the most magnificent horses in the parade." It was gratifying to see the extra effort.

Mrs. Erano made similar observations about her eighth grade students' skills and attitudes toward writing:

> I believe the rubric helped lessen student resistance to writing and revising. As students grow more familiar with the rubric, they seem to better understand how to evaluate themselves and each other, as well as how to complete the writing process. The rubric is their tool to use whenever they need it. Working with it allows them to focus on details that help them to develop, extend, and clarify their ideas.
>
> A self-disciplined attitude is one by-product. At the risk of sounding cliché, I believe true learning became their own. As students take responsibility for helping themselves and each other, they become more self-directed. Without tools such as the rubric and the COACH process, peer editing and self-direction would be almost impossible for most of them. The rubric allows students to monitor their own progress and achieve to the best of their ability.

Mrs. Buff reported that, by the end of the school year, students' writing and their ability to self-assess had dramatically improved:

> Students are aware of what makes good writing, and they use it in all their ELA writing assignments. Most of the students are continuously scoring a level three or four on all criteria on the rubric. Students are also able to self-assess independently.
>
> They are aware of their strengths and weaknesses and make noticeable efforts to focus on their weaknesses on each new writing assignment. Now that they understand the process of self-assessment, they enjoy it and are ready to begin even before I am. The self-assessment gives them a sense of independence and helps them take ownership of their writing.

Improvements in test scores

Fortunately, the students' new skills appear to have transferred to the extended response portion of the ELA test as well. Figure 4 contains the passing ELA scores (level three or four) for 2006 and 2007. In grades six and eight, the scores for all students, taken together, increased by seven and 15%, respectively. Subgroup scores also went up. Most impressive are the improvements in scores received by economically disadvantaged students, which were 20% higher in both grades.

Figure 4

Scores on the English Language Arts test for 2006 and 2007 by grade level and subgroup, and between-year differences.

Grade level Subgroup	2006 ELA scores of 3 or 4	2007 ELA scores of 3 or 4	Difference
Sixth grade			
All students	50%	57%	+7
African-American	30%	46%	+16
Special Needs	5%	20%	+15
Econmically Disadvantaged	28%	48%	+20
Seventh grade			
All students	47%	47%	0

African-American	35%	34%	-1
Special Needs	0%	5%	+5
Econmically Disadvantaged	31%	33%	+2
Eighth grade			
All students	37%	52%	+15
African-American	23%	45%	+22
Special Needs	3%	15%	+12
Econmically Disadvantaged	20%	40%	+20

The scores for seventh grade were essentially unchanged, probably because the seventh grade test does not require students to actually write. In seventh grade, students are asked to answer multiple choice questions, write short responses, and edit a passage. Their new skills in writing extended responses were not measured.

Although we were very pleased with the results of the ELA test for the sixth and eighth grades, it is important to note that the increased scores cannot be attributed solely to our work. Different students were tested each year, so some variation was to be expected, regardless of what we did. The ELA test scores had been relatively stagnant in previous years, however. The percentages of passing scores at eighth grade, for example, were 44%, 35%, 39%, and 37% for the years 2003 through 2006, respectively. By 2007, 52% of the eighth graders passed the ELA test. Given that trend and the improvements in the writing students did in class, we have reason to believe that our work had an impact. Our original goals—making assessments clear to students; providing frequent feedback about the quality of their work via teacher, peer, and self-assessment; and using classroom assessment results to plan instruction—appear to have served student learning and school progress.

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