



TEACHING STORIES

Observations and insights of a high school science teacher in a large suburban public school system.

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THE MISSING TEST BOOKLET

Maybe I'm unusual as a teacher, but I don't really mind the use of standardized tests in education, at least in principle. Let's all decide what's the most important for science students to learn this year. Then you summarize for me what that is, and I'll do my best to find a way to teach it to them. It's ok with me if one of the ways you assess whether they've learned it is to give them a standardized test on it. At least that assures that there's some baseline that next year's science teachers can build from.

The implementation of standardized tests, though, is something else. In the short time since I started teaching, I've seen a lot of snafus in the standardized science tests used in my school district. But the latest one beats them all.

Errors in the tests are amazingly common. Last year, there was wrong information in a question on the final exam, and every end-of-unit test sent out this year by the district office has had at least one mistake in it. Some of these errors are merely irritating (like misspelling "refrigerator"), some are subtly misleading ("Use this figure to answer the next three questions," when only one question actually applies to the figure), and some actually direct students to the wrong answer (a nearly invisible figure in which someone had tried to make the numbers more visible by retying them, but typed them wrong, which led students to the wrong answer).

In an earlier era, these mistakes could be fixed by simply eliminating the most error-ridden questions from the total when calculating a test score. In these electronic times, however, it's not so simple. The test answer sheets are now scanned into a Web-based testing program, which has the answers already programmed in by someone in the district office. So teachers can't correct the answer key, or even see the programmed answers ahead of time. And the electronic system itself offers a multitude of new opportunities for error – answers programmed wrong; errors in the weights given to various answers; errors in the test forms and the classes that are uploaded to the system. So I shouldn't have been surprised at this latest, but I haven't yet developed the Buddha-like acceptance of the bureaucratic mistakes that lead longer-tenured teachers to shrug and ignore district dictums completely.

The latest snafu in the district's standardized science test is actually not a single error, but a layer of errors superimposed on a new testing policy. One result was that an inexperienced new teacher in my school lost track of a test booklet. This is one of the worst educational sins a teacher can commit. (The test booklets are security-controlled, because all science students in that course in all schools receive the same final exam, which is used with little change year after year.). The new teacher is an enthusiastic college grad who had been on the job exactly two weeks. She initially said she loves teaching science. It's not clear she does anymore – or even whether she'll be allowed to continue.

This year's test fiasco started with an attempt by the district office to cut costs while also solving a problem that occurred when last year's 11th grade science final exams were moved to the Web-based grading system. Science finals used to come in an A version and a B version, to reduce the opportunity to cheat when students sit 2 per lab table to take tests. (I still give quizzes this way.) With the advent of the new system, however, each student gets a customized computer-ready answer sheet, and the answer sheet must match the programmed answer key. Thus, each student must have an answer sheet that is not only programmed to the student's ID number, but also matches the version (A or B) of the test booklet he or she actually used. This led, last year, to considerable logistic confusion as teachers tried to match pre-printed and customized answer sheets to the available numbers of A and B tests issued for that class—in fact, many of us simply printed entire duplicate sets of answer sheets so we would always have an answer sheet for a given student that matched the test version he received. Not surprisingly, this system led to teacher complaints; it was not only time-consuming but caused some mis-matches that required re-bubbling answer sheets and, in at least a few cases, serious errors. I know of at least one student who initially received an F on his final exam because he had been given the wrong answer sheet. The error was discovered only because he was so shocked at the F that his mother insisted that the school track down his original test booklet, which turned out not to match the answer sheet. The correction to his exam grade changed his semester grade from a C to a B. Quite a difference.

So, the central office decided on a quick fix for this year: they would issue only one version of the science final exam. That solved the teachers' complaints and eliminated the risk of wrong-version errors. It also raised dramatically the opportunity to cheat and not get caught.

The difficulty in science class, where students share small tables, is that it's actually very difficult not to see the answer sheet of the student beside you; in fact, you have to be careful not to put your elbow on her paper because you're so close together. The trick to giving tests in this situation is to make it so difficult to cheat that catching cheaters is fairly easy – if they think they can't cheat successfully, they usually won't try. So when I give quizzes, I always give 2 versions (sometimes as simple as mixing up the order of the questions and the answer options on a multiple-choice quiz). For district-mandated unit tests, where there has always been only one official version, I give a supplement and make students alternate which part of the test they do first. The extra time it takes me to organize the test has been worth it to me, because attempts to cheat are disruptive to the class, lead to resentment among students, and most importantly invalidate the purpose of the test.

For the final exam, which couldn't be tinkered with, the best I could do was to change the seating arrangements so that students sit at the end of each table instead of next to each other. (According to several other teachers, this is a fairly common practice for giving a single version of a test to students seated in pairs.) So, before the first period exam on Friday, I fixed my room in this arrangement, and resigned myself to being extra-vigilant during the exam. And I advised our new teacher, Marie, to do the same thing in her class. Marie was giving a final exam for the first time (Marie started mid-year, stepping in for a teacher on extended leave.)

Unfortunately this seating arrangement takes up almost all the space in the room, especially with full classes of 30-32 students. Even before the students entered, I found myself turning sideways to squeeze between adjacent chairs. So I knew monitoring and getting to students with fresh pencils or addressing other issues was going to be difficult, but it was the best I could do.

What I didn't anticipate was that the crab-wise fashion I used to get around the room also made it more difficult to hand out the test in an orderly fashion. The order is crucial to keeping track of who's received it (so that no one can pocket a test and then ask for another one). My usual co-teacher was absent on Friday; the woman substituting for her was handing out the test as I was giving instructions about it, and I noticed

that she didn't give them out quite sequentially because of the difficulty in getting down the rows. I had to double-check to make sure we'd given out the right number. She also inadvertently put one at the desk of an absent student, but luckily, I caught it.

But the reason I was still giving instructions as she handed out the tests was that there was....(drum roll)....an error in the test!. Not your run-of-the-mill wording error, but one requiring a wholesale renumbering of the test.

It turned out that in the process of making other revisions, the person who edited the test booklet had forgotten to number questions that require written responses, even though they were assigned numbers on the answer sheet. This meant that, once the first written question was passed, the numbers of the questions in the test booklet no longer matched the numbers on the answer sheet. After the second question requiring a written answer, they were two numbers off. And so on. So if a student answered, say, question 15 in the booklet by shading in a bubble next to answer 15 on the scannable answer sheet, her answer would most likely be wrong. Furthermore, every answer after it would also be answered in the wrong place. In the worst case, this error in the test packet could lead every single student to appear to fail the entire exam, because most of their answers would be in the wrong place.

Teachers don't see the final exams ahead of time, and I learned about this error less than 10 minutes before the test started, when the chair of the science department walked into my room with a paper copy of an email from the district office. I was busy checking in textbooks returned by the students as they entered class. My first thought: At least there's one saving grace. There is only one version of the test they every student will have to fix.

My first period class is a regular science class in which nearly 1/3 of the students have special accommodations for learning or language problems. Many of the special education students have organizational problems. Trying to explain to them on the spur of the moment what the error was and how to re-number the problems was a nightmare.

The explanation, and coaching them through the changes, took almost 10 minutes, and even then several students were still confused. Finally I told them to go ahead and start, but to answer questions sequentially if they possibly could; if they skipped a questions and went back (usually an important strategy for a timed test), they should be extra careful, and I would circulate and check during the test. Which I did. Squeezed between desks and circulated the room for the entire 2 hours, constantly checking that students were answering in the right place. I caught 3 starting to answer in the wrong place. One student started answering wrong, corrected it with my help, and then went wrong again. Awful. And the corrections, combined with the explanation at the beginning, meant that quite a few students were still frantically trying to finish as time expired.

By the time I finished administering the exam to my second period class, I was no longer furious, but I was still pretty mad. As it turned out, my problems were the least of it. Marie, the new teacher next door, went through a similar experience, of course, and though she had a class of honors students, some managed to get their question numbers out of sync. She tried to help them figure out where they went wrong as they were frantically trying to re-bubble all of their answers in the right place before time ran out. Which meant that she collected tests but didn't double-check them to see how many she received. And, being brand new, she didn't realize that the worst thing that can happen during a district-wide final exam -- even worse than every student cheating, or half the students answering in the wrong place -- is to lose track of a examination booklet. She simply didn't realize that she should call the department chair at the first hint of a possibility that a test booklet was missing. By the time she confirmed it and let the chair know, the exams were over for the morning and the kids had left the school.

By late afternoon, when I finally left to go home, all hell had broken loose. Our school will be in deep, deep trouble for letting a controlled exam out. The administrators are furious with Marie. But I can't help but be sympathetic. The lost test was only the last in the chain of errors and mis-handling around the test. And the errors started in the district office..

The folks in the central office who couldn't be bothered to do an edit check for the accuracy and completeness of the test booklet are the main culprits. (Or, more charitably, perhaps the managers who insisted on a timeline that didn't acknowledge the need for checks.) The technology, with pre-programmed answer sheets and keys, was also a major contributor. The policy decision to produce a single test version compounded those errors, as did our seating arrangements as we attempted to reduce the cheating associated with using a single test version. The school administration, too, contributed in its small way, by leaving a new teacher on her own to muddle through.

And the brand new teacher doing her best to administer her first-ever final exam in the face of this cacophony of errors will take the heat. Welcome to teaching.