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Guest Editorial…

A Learning Environment Crippled by Testing: A Student Teacher's Experience

Amanda Avery

My student teaching experience was to begin in January 2003. In November prior to this, I was assigned to a mentor teacher who taught Applied Problem Solving (APS) and Advanced Algebra/Trigonometry. Because the state of Georgia has adopted (criterion referenced) End of Course Tests (EOCT) for Algebra I and Geometry, I will focus a majority of this commentary on my experiences with my APS class. This course and its complement, Applied Algebra, satisfy the requirement for Algebra I for technical career students (as opposed to those that are college prep students). The intention is for the technical career students to get more of a "hands on" approach to Algebra, with phrases like "contextual teaching and learning" being strongly emphasized and encouraged.[1] My intention is to illustrate to you what I was up against concerning standardized testing in my APS classes, to express to you how I feel about these pressures, and to demonstrate to you how my students wanted me to assess them in other methods that aren't necessarily measurable.

Because I was unfamiliar with the curriculum for the APS course, I carefully reviewed the state of Georgia's educational standards, called the Quality Core Curriculum (QCC) and compared them to the CORE-Bridges APS textbook used in my school. I was relieved to discover that I didn't need to teach the breadth of the entire textbook, but only about five key concepts in depth. I e-mailed my mentor teacher about his experience the previous year with this textbook: "I was looking at the QCCs for the APS class and discovered that we can most likely skip chapters 4 and 8 (along with a few sections from chapter 2) from their textbook. Let me know what you think."

My mentor teacher's response: "Due to the EOCT that follows the Applied Algebra, we do not follow the QCCs in this course as closely as we do others. We really don't skip those sections at all, but modify and enrich as allowed by the students of the class. … Our two APS classes are just 23 and 17 students each. They range from special ed students to seniors who have algebra one, algebra two, and just need a third math to graduate under the Technical Career diploma. However, the course is based on the slower students (bottom 25th percentile of the nation), and the others are used as tutors and mentors. Most like being the smartest in the class, as they are used to struggling in CP [College Prep] and failing."

Just so you have a little more taste of what my first impressions were, I asked my mentor teacher for some more feedback: "I was hoping to skip a majority of chapter one. Of course, I really have no idea how appropriate this is because I don't know what the students understand and can apply. I do feel, though, that I should give the students a little more credit than what their textbook implies."

My mentor teacher's feedback: "Most of the students need the reinforcement of the first chapter, but there are things we can do to not approach it the same way as the book. I agree that it seems elementary, but these students are not like the ones you observed in block four classes in the fall [Honors Advanced Algebra/Trigonometry]. They have struggled in math their whole life, and most math is forgotten between courses. Part of the hope is to let some find success if they have the skills, but look at it in an applied sense. We may get lucky, but students have failed the first unit test (46% last spring)."

Now, for a challenge from the state legislature… The state of Georgia, as part of its A+ Educational Reform Act of 2000 passed a law, O.C.G.A. §20-2-281 that "mandates that the State Board of Education adopt end-of-course-assessments in grades nine through twelve." Each EOCT is "directly aligned with the standards in the QCC and will consist of multiple choice questions." According to its 2001 Information Brochure, the purpose of EOCT is to "improve student achievement through effective instruction and assessment of the standards in the QCC and to ensure

Amanda Avery is a mathematics education student at the University of Georgia. Upon completing her student teaching in a rural public high school, she was recognized as the outstanding graduating senior with the department's Hooten Award. She will begin her teaching career this fall at John McEachern High School in Powder Springs, Georgia. She enjoys sailing, dabbles in desktop publishing, and collects black & white photographs of dogs. Her email address is ImagineALA@hotmail.com.

that all Georgia students have access to a rigorous curriculum that meets high-performance standards." If students take the EOCT; what, then, will teachers, schools, school boards, and the state board of education do with the data that is collected? "The results of the EOCT will be used for diagnostic, remedial, and accountability purposes to gauge the quality of education in the state." The interesting part of all this is that all Georgia high school students take the Georgia High School Graduation Tests (GHSGT) as exit tests for getting a high school diploma: IB, college prep, tech prep, and general ed are all included (special ed seals allow for modifications, as appropriate). In addition to a comprehensive test that covers "up through Algebra I," as a requirement for graduation, legislators also subject students to EOCTs. Let's not forget, also, that legislators are submitting taxpayers to the costs of creating, administering, and scoring these tests.

Now you have the general idea of what I was to encounter, through my mentor teacher's expectations and the state's mandates. I taught in block scheduling, where students complete four entire courses in a single semester, sitting in four 90-minute classes each day. Despite my mentor teacher's outlook on keeping an iron fist on the APS textbook, I looked for ways to satisfy the National Council of Teachers of Mathematics (NCTM's) vision from the Principles and Standards, the Georgia QCCs, the EOCTs, the GHSGTs, the PSAT, the SAT, the ACT, my APS students and ME.[2] I don't want to completely give you wrong impression—While I was very overwhelmed by the pull of all these outside forces, I did enjoy my student teaching. How? Because of my students—the interactions I've had with them, and the few sparks that I could witness igniting if they encountered something new and challenging.

Early on I was confronted with wondering how I can arrange a pacing guide that requires my students to be tested comprehensively as juniors in March for the GHSGT, tested cumulatively in April (or November) for Algebra I for the EOCT, tested state-wide for the PSAT as sophomores in October, make time for standardized testing "prep sessions," athletic pep rallies, student organization meetings, special seminars for students, fire & tornado drills, and for, oh yea, teaching. I understand that assessment is a part of teaching, but within my classroom I also must place into the pacing guide room for formal assessments for finals, midterms, projects, presentations, quizzes, and reviewing homework. I hope you are beginning to understand that I feel as though my student teaching experience was one big assessment. Sometimes I felt as though I never got to teach, and more importantly, my students rarely had the opportunity to learn significant mathematics, to struggle, to dabble—they were always being evaluated, whether informally or formally.

It is with this point that I am most disturbed by Georgia's A+ Education Reform Act of 2000. I didn't understand how multiple choice standardized tests could "improve student achievement through effective instruction and assessment of the standards in the QCC," especially if the end results were to be used for "diagnostic, remedial, and accountability purposes to gauge the quality of education in the state." It seems to me that standardized multiple choice questions are inadequate for assessing the "quality of education," especially if you consider quality mathematics education as the vision put forth by NCTM's Principles and Standards. Even more importantly, I was also vexed with what the results will do for my students—they sort, rank, and stigmatize my students against other students, other schools, other districts, and other states who have widely varying curriculum standards, resources, administrators, parents, and students than mine, especially if "holding schools accountable" means that my school district may not get additional funding. Ethically, this seems as a step backward if my community truly believes that ALL students can be successful and where ALL students can and must learn mathematics, where "no child is left behind." Even though the idea that students must be able to illustrate proficiency in skills x, y, and z before moving on to the next course is quite valid, I don't believe that standardized testing is helping my students, their parents, me, my administrators, my school board electorates, and my state board legislatures to provide a complete picture, even if my students excel at multiple choice standardized testing. Lack of providing a complete picture is only the "tip of the iceberg" towards the argument that standardized testing is not the way to "improve student achievement." While I don't believe that assessment isn't a part of the teaching process, I believe that students' attitudes, behaviors, and oral and written communication skills must be also considered.

Yet, I am unconvinced that students should be continually assessed, every moment in every class. It was an obstacle for me to realize that my students were afraid to participate in class because they have learned the game—they know that the teacher is always listening, the teacher is always judging, the teacher is always thinking, "right or wrong." No, actually, the obstacle was in trying to change the game, to let my

students experience different rules, where they weren't judged on everything they thought, on everything they tried to start. This experience is not centered on my actions alone; in fact, the interactions that my students had with each other was the most crucial part of changing the rules. It took my students about six weeks to realize that when I ask for ideas that I (or other students) wouldn't ridicule or thwart each other's efforts. It was almost over night that my students started trusting me and trusting each other with their ideas and suggestions.

What happened? I was able to teach; they were allowed to struggle, they were given opportunities to test ideas, and they weren't being graded. Correction: it wasn't that I was suddenly able to teach; my students now taught each other. Through a problem solving day, my students demonstrated to me and to each other that they could effectively provide valid inferences, evaluate each other's ideas constructively (not critically), and more importantly, they started questioning their own thought processes. The most significant comment I made that day is that I "will not grade what you do today. Rather, I want you to think about how you can evaluate how you think you understand what you are doing."

My students informed me that I could understand what they were thinking if I watched them do problems, and if I listened to how they explained the concepts to each other. Even though I did these things informally, somehow this discourse allowed my students to become more relaxed with each other; it's almost as if I needed their "okay" for them to finally trust me and each other. The judging environment had been eased; the iron fist relaxed its grip. They understood that I didn't like lecturing and being the only one doing the mathematics while they passively copied my notes, and I understood that they didn't like this either—they want the challenge, they want to think. And standardized testing cannot ever measure that.

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[1] You might understand why I've added the emphasis, but that is not the point of this editorial.

[2] I wanted to emphasize that my students and I are also important in this alphabet soup of curriculum standards and standardized tests.