

Ladson-Billings, Gloria (1997). It Doesn't Add Up: African American Students' Mathematics Achievement, *Journal for Research in Mathematics Education*, Vol. 28, No. 6, p. 697-708. [Selected excerpts]

## Precepts

- “Traditional” mathematics teaching emphasizes repetition: drill; convergent, right-answer thinking; and predictability. Students are asked to perform similar tasks over and over and are rarely asked to challenge the “rules” of mathematics.
- The revamped mathematics education program is based on *engaging* students in the process of mathematical thinking - problem posing and problem solving rather than on expecting rote memorization and convergent thinking.
- These changes in mathematics education suggest that mathematics teaching must build on students' learning, accessing their prior knowledge and experiences, and on their ability to pose and solve problems previously considered too difficult for their age-grade levels.
- Mathematics, and the teaching of mathematics, is a cultural phenomenon; it functions as both a feared and revered subject. We fear it because we believe that it is too hard, and we revere it because we believe that it signals advanced thinking reserved only for the “intelligentsia”.
- In the U.S. is found a cultural belief that either one “has it” or does not when it comes to mathematical ability, and the way to “get it” is through genetic inheritance.
- In an earlier era, mathematics teachers were charged with using their subject area as a curriculum sieve, sifting and winnowing to select the top students to go on to higher mathematics. In our current highly technological, global economy, few Americans can afford to be left out of high level mathematics. Thus, today's mathematics teachers must conceive of their subject area not as a sieve but as a net that gathers in more and more students.

## The Pedagogy of Poverty (summarizing and extending on Haberman, 1991)

### What Does It “Look Like”?

- Giving Information
- Asking Questions
- Giving Directions
- Making Assignments
- Monitoring Seatwork
- Reviewing Assignments
- Giving Tests
- Reviewing Tests
- Assigning Homework
- Reviewing Homework
- Settling Disputes
- Punishing Noncompliance
- Marking Papers
- Giving Grades

Taken separately, these acts might seem “normal”. However, “taken together and performed to the systematic exclusion of other acts, they have become the pedagogical coin of the realm in urban schools.”

## To Whom Does This Pedagogy Appeal?

- *Those who themselves did not do well in school.* Too many of the teachers assigned to urban classrooms fail to enjoy intellectual pursuits. Their own work in school was mediocre, and teaching was a choice of convenience rather than one of informed and reflective decision making. These teachers typically were not good mathematics students, and their orientation to mathematics is a rule-governed, right-answer, “hard” discipline.
- *Those who rely on common sense rather than on thoughtful analysis.* Teachers who practice this kind of pedagogy are more likely to suggest that students need to learn or do something because that is the way they learned or did it. Rather than make curricular and instructional decisions on the basis of empirical research or a systematic study of students’ classroom performances, they do what “feels” right. Thus, strictly following the mathematics textbook and completing problem sets become the rule.
- *Those who fear people of color and the poor and who have a need for control.* It is interesting to walk into schools or classrooms thought to be “good” urban classrooms. Often, what makes them “good” is that they are unnaturally quiet. Teachers and administrators sometimes become so consumed with the notion that African American children must be managed that they forget that they need to be taught. Maintaining order and keeping children under control become the preoccupation of the teachers Haberman describes. That order may be best maintained by, in these teachers’ view, giving students mundane, routine mathematics tasks that do not invite much discussion and contestation.
- *Those who have low expectations for children of color and the poor.* As was previously mentioned, a notion prevails in American culture that academic excellence is a result of genetic good fortune. This concept – that some students “have it” whereas others do not – is particularly pernicious when directed toward African American students. Teachers who presume that because students are of a particular race or ethnicity they cannot be expected to perform at high levels in mathematics fail to present those students with a challenging, intellectually rigorous mathematics curriculum. Instead, their mathematics curriculum is best described as overly directive and controlling.
- *Those who do not know the full range of pedagogical options available.* It stands to reason that if teachers have not performed well in school, approach teaching unsystematically, fear their students, and hold low expectations for them, they are likely also to possess a limited teaching repertoire. Calling on past (bad) practices, these teachers tend to reproduce the kind of unimaginative, stifling pedagogy that has failed to serve students of color for many years.

## A Different Pedagogy

### [Based partly on a case study of a teacher named Margaret]

- *Students treated as competent are likely to demonstrate competence.* Much of the literature on teacher expectations of student achievement helps us understand that when teachers believe in students' abilities, the students are likely to be successful. Conversely, when teachers believe that because of the race, social class, or personal economic situations students may not be intellectually able, student performance (and how it is assessed) confirms those beliefs. Margaret treated all students as if they were intellectually exceptional. She expected all of the students to perform at high levels of competence – and they did.
- *Providing instructional scaffolding for students allows students to move from what they know to what they do not know.* Rather than worry over what students do not know, Margaret demonstrated the possibility of using the students' prior knowledge as a bridge to new learning. She instructed her students not to allow organization of tests or texts to distract or confuse them. She reassured them that they possessed key strategies for solving a variety of problems.
- *The major focus of the classroom must be instructional.* Margaret made efficient use of her class time. From the moment the students entered the classroom until the time they were dismissed for recess, they were engaged in mathematics. Additionally, Margaret was engaged in mathematics instruction the entire time. She did not attempt to occupy the students with busy work. Instead, she was committed to the academic success of each student and accompanied each one on the instructional journey. Knowing that she was right there with them gave the students the assurance that their progress would be monitored and that they would never be allowed to stray too far off the instructional path.
- *Real education is about extending students' thinking and abilities beyond what they already know.* Margaret's decision to teach her sixth graders algebra even when it was not mandated by her district's curriculum was a conscious effort to demonstrate to the students that they had the capacity to learn and perform at higher and more sophisticated levels than had been demanded of them previously. Instead of attempting to maintain the students at low levels of academic performance, Margaret provided challenging content for *all* the students.
- *Effective pedagogical practice involves in-depth knowledge of students as well as of subject matter.* There is no disputing that effective teachers must be knowledgeable about content. Additionally, Shulman (1987) suggests that beyond a knowledge of their various content areas, teachers must know how that knowledge is best taught. Other researchers argue that teachers who are successful with diverse learners also are able to cultivate and maintain strong interpersonal relationships with their students (Foster, 1992). Spindler and Spindler (1982) reported that teachers, perhaps unconsciously, favor those students whom they perceive to be most like them. This partiality takes the form of attending more to these students, valuing their responses more, and evaluating their performances more favorably. If teachers are to be more effective with African American students, they must develop a positive identification with them – to perceive them to be like them, that is fully human and possessing enormous intellectual capacity.

Reflecting Individually on the Ladson-Billings Excerpts

What are the features of the pedagogy of poverty that Ladson-Billings describes?

What is the effect of low expectations on instructional decision making for teachers?

What does this bring up for me, with respect to my work as a leader?