

Increasing the Number of Minority Students in Accelerated Classes

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What is the topic?

- Who are considered as minorities in math?
 - African Americans
 - Latinos
 - Native Americans
- “The mathematics classroom is one of the most segregated places in the United States” (Walker 48).
- Non-minority students continue to outperform minority students at every grade level (Holloway 1)
- Although poor mathematics performance cuts across all cultural groups in the U.S, "African American Students continue to perform poorly in school mathematics" (Ladson-Billings 697).

Why do you think minorities are not taking advanced math classes?

- A) Minorities are not as prepared at home or in previous schooling
- B) Teachers discourage/don't support minorities students
- C) Minorities are influenced by their peers to stay in regular classes
- D) Minorities do not have the resources
- E) Minorities aren't smart enough

Why is it “Hot”?

- “one-third of the achievement gap in mathematics was due to course-taking differences” (Walker 48).
- 43% of students in Illinois are minorities
- There are over 20,000,000 minority students in the USA
- Proceeding the civil rights era that declared literacy as a key to full citizenship, "Bob Moses, one of the stalwarts of the civil rights movement has argued that mathematical literacy represents the "new" civil rights battleground (Ladson-Billings 698).

What are the relevant issues?

- Minorities are not getting the same opportunity for their future
- Minority students generally receive a less rigorous curriculum and lower expectations.
- "Low-income African American students are more likely to be clustered in low-ability mathematics classes" (Ladson-Billings 701).
- A lack of early math preparation leads to minority students not taking advanced math courses.
- School mathematics has been presented in ways that are "divorced from the everyday experiences of most students" (Ladson-Billings 700).

What would you do?

You are teaching in a remedial Algebra I class, and have noticed that most of the students are minorities. A lot of the students do not participate and are unmotivated. What ways would you approach to resolve this?

- A) Give one-on-one attention to students who need it most
- B) Lower your expectations
- C) Continue to challenge and support the students
- D) Take into consideration their experiences
- E) Become more strict

What does the research say?

- Supported students do better
- High expectations should be held for all students
- Teachers should challenge and support students
- Instruction should be built on prior knowledge
- Technology can be implemented to enhance learning
- From 1997-2000 the percentage of minority students meeting or exceeding standards doubled when using the previous approaches (Holloway 2)
- Take into consideration student experiences
- Redirect focus towards how mathematics learning can be constructed vs. presumed causes of poor performance

What is the best practice related to this topic?

- Get rid of tracking
 - placing all students on a college prep track places high expectations on students
 - Students must succeed because there is no remedial track to fall back on (Horn 4).
 - Many positive results; more minority students interested in higher level math
- Give more out-of-classroom math opportunity
- Culturally Relevant Pedagogy as opposed to "Pedagogy of Poverty"
 - Continually reassures students are capable
 - Series of probing questions
 - Provide instructional scaffolding

What is the best practice related to this topic? cont...

- Teacher collaboration
 - observe one another's classes
 - meet to plan lessons and discuss challenges in the classroom
 - This lessens the stress on the students when moving from teacher to teacher (Horn 5)
 - "Just as it takes a whole village to raise a child, it takes a whole mathematics department to raise the achievement of students."
- Aware of status issues
 - some students feel inadequate due to previous classes
 - publicly praise intellectual contributions from struggling students

Approximately what percentage of minority students vs. non-minority students complete advanced math courses?

A) 50% vs. 25%

B) 10% vs 80%

C) 25% vs. 50%

D) 50% vs. 50%

E) 75% vs. 95%

Why is this important for your future teaching?

- Teachers need to support students and not generalize
- Number of minority students are growing
- Develop Culturally Relevant Pedagogy
 - framework to learn to develop teaching strategies to cater all learners
 - come to realize that student experiences are important to consider
- As teachers, important to not isolate students
- Promote parental involvement in studies and math activities
- Help instill ideology for problem solving

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