

Implementing a Social Justice Curriculum: Practices to Support the Participation and Success of African-American Students in Mathematics

A Position Statement from the Benjamin Banneker Association, Inc.

Introduction

During last year's presidential election, serious issues of gender, race, immigration, and social class for people in the United States and beyond its borders were prevalent through social media. According to Richard Milner IV in a commentary in Education Week, several middle and high school teachers are struggling with such issues, whether they be covert or overt. These teachers often feel that they are missing important opportunities for students to think, engage with each other, learn, and develop. This missing opportunity can be addressed through engagement with Social Justice in mathematics where critical thinking can be developed through mathematics activities.

The concept of social justice in the mathematics classroom can be viewed through 3 lenses- there is "about" social justice, there is "with" social justice and there is "for" social justice. About social justice is planning a lesson to look at serious or even provocative issues using mathematics. With social justice, the focus is the demeanor of classroom interactions. The teacher uses various practices within classroom relationships that encourage equal participation and status. For social justice, the practices are founded on the belief that mathematics is the tool to be used to challenge the status quo that is adversely impacted by the lack of social justice.

Although children of all ages are reflecting on tough social issues, so many opportunities for teachers to draw upon these powerful realities as anchors for curriculum and instruction are lost. This type of curriculum and instruction can be developed through a social justice curriculum. The position which is advocated for in this paper is that a social justice curriculum must be inclusive of materials, practices, and beliefs which these three lenses outline in order to achieve the goal of this type of teaching and learning.

A primary goal of a social justice curriculum should be to facilitate authentic, meaningful relationships between African-American students – also identified in this paper as people of African ancestry – and those who are responsible for their education. This will be achieved

through the exposure of students of African ancestry to a relevant curriculum which maintains a focus on fairness, equity, and access. The implementation of a social justice curriculum requires meaningful contexts, on-level content and attention to a learning environment that continues to promote equity and access. A social justice curriculum should also foster civic engagement and promote activism that engages the student of African ancestry at high levels.

Definition

People of African ancestry have a unique history. For hundreds of years our beliefs were communal and our acts were corporate. These behaviors have been distorted over our recent history. Consequently, we need a process to identify, examine, diagnose, discuss, and determine solutions to those political, economic and social conditions that have an adverse effect on people of African ancestry. We call the name of this process Social Justice.

When this process - one where political, economic, and social conditions are investigated using mathematics - is enacted within a mathematics classroom, we can refer to it as mathematizing social issues.

While *mathematizing* social issues is one strategy of social justice curriculum, it is not the goal. A social justice curriculum should facilitate students' critical examination of the world and critical consumption of information and engage the larger community beyond the classroom walls. The teachers responsible for the teaching and learning of students of African ancestry must have access to high quality social justice curriculum materials, and appropriate professional development that will support the creation of learning spaces that are culturally significant. The attention to and inclusion of pedagogy (how), content (what) and equity (who) should manifest itself in all professional development and instructional delivery systems.

The result will be students and communities who possess the mathematical skills and tools necessary to engage as citizens and who have positive self- and community-esteem, mentoring relationships, and a historical and contemporary understanding of the heritage and legacy of people of African ancestry.

Rationale

The status of African-American students must be placed in the context of the history of people of African ancestry in this country. Part of the white supremacist belief system that was used to justify the enslavement of African people was the idea that they were genetically inferior to other races with respect to intelligence. In the 20th century, this belief was actualized in the Eugenics movement, which advocated sterilization of genetically inferior members of the population. As time progressed, psychologists began to develop intelligence tests to place people into categories. Intelligence tests were also used to classify African-Americans as genetically inferior with respect to intelligence. These intellectual designations have played out in all content areas,

but nowhere as great as in the subject of mathematics. African-American students are often labeled as "bad" at math based upon their test scores and are relegated to the lowest level mathematics classes. Rarely do African-American students get opportunities to engage in mathematics as described in the Standards for Mathematical Practice. African-American students are often discouraged or forbidden from taking high level mathematics courses.

As a plan for social justice in mathematics education is developed, this work requires attention to the creation and support of high expectations by teachers, parents, community, administrators and students that children of African ancestry have the intellectual capability to be successful and excel in mathematics. This belief is central to the instructional delivery systems in place and the overall culture of the school.

The Pros and Cons of Implementing a Social Justice Curriculum in Mathematics

Pros	Cons
Real world contexts for engaging in mathematics	Teacher comfort with engaging students in social topics
Using mathematics to improve social conditions	Lack of understanding could lead to incorrect assumptions and stereotyping
Increased student engagement and interest in the content	Lack of resources to support the implementation of a social justice curriculum
The ability to teach mathematics content using contexts that resonate with students and appeal to their interest	Lack of buy in on the part of the system/individuals who deem this to delude the content instruction
Opportunity to use mathematics to achieve change in positive ways for the community in which the students reside	Lack of teachers' understanding on what social justice is and why it is important
Self-esteem building as students successfully apply mathematics concepts and skills and realize that mathematics is important and accessible	Systemic racism and the lack of value placed on a social justice curriculum
Relationship building opportunities between teachers, students, their families and communities	
Respect for diversity and understanding of historical contributions	
Cross-curricular opportunities for instruction	

Supporting the Implementation of a Social Justice Curriculum

We propose the following components are necessary for the implementation of a social justice curriculum in mathematics for students of African ancestry: identifying critical curriculum elements; differentiating between “schooling” and “education”; and developing a plan for professional development and enactment.

I. Curriculum Elements

- **Self-love and Knowledge** The mathematics curriculum is inclusive of lessons which use historical and contemporary contexts to highlight the contributions of Africans and those of African ancestry. As a result, a sense of dignity in their culture, heritage, ethnicity/race, is cultivated in the classroom. Negative stereotypes about students’ identities and abilities to create and apply mathematics are deconstructed as a result.
- **Respect** The mathematics curriculum routinely provides opportunities for students of African ancestry to research and share their knowledge about their cultural background with their classmates and require students of non-African ancestry to research these contributions as well. The goal of the curriculum is to create a climate of respect for diversity and deconstruct stereotypes about the innate mathematical abilities of students of African ancestry.
- **Issues of Social Injustice** The mathematics curriculum moves beyond “celebrating diversity” to an exploration of how a lack of embrace on the part of the majority population has impacted people of African ancestry in different ways. Students learn about the history of racism toward those of African ancestry and how systemic oppression has affected different communities of color, particularly those in which they live. The curriculum identifies specific mathematical concepts, skills, tools and applications to show how the historical roots of oppression impact the lived experiences and material conditions of people today. Slavery, anti-immigration policies and sentiment, media (mis) representations, issues that face the students’ communities such as gentrification, police brutality, etc. are excellent areas to mine for historical and contemporary contexts. The result is not to simply *mathematize* the context, but to empower students to seriously deliberate cause/effect and solutions with the use of mathematical models including economics and statistical analysis to dissect the history and its ramifications.
- **Awareness Raising and Social Action** The mathematics curriculum provides opportunities for students of African ancestry to teach others about the issues that affect these students and their communities. This allows students who feel

passionately about issues to become advocates by raising the awareness of other students, teachers, family and community members. This allows for cross-curricular opportunities such as blogs, letter writing campaigns, newsletters, videos, documentaries, etc. Raising awareness is a necessary and important precursor for action; the cornerstone of an effective social justice curriculum.

When students are taught mathematics through the thoughtful implementation of a social justice curriculum, they have learned not only mathematics concepts and skills, but more importantly they recognize the legacy of achievement and responsibility that has been passed on to them. Students of African ancestry are empowered to apply this knowledge and other skills to examine additional cultural and societal phenomena. The skill of creating change firsthand, the ability to articulate positions using mathematical models, and a strong self-worth are tools and ideals they will carry with them into their future decision making and contributions to society.

II. Equity/Access – Understanding “Education” vs. “Schooling”

Equity = Assets minus Liabilities. With this equation, one can tell, as it relates to people of African ancestry, there is little or no equity to speak of. There is a need to understand that the structures or buildings that were designed to “educate” the children of this nation were not developed to promote equality. Because of the need to increase the foundations of capitalism, schools were necessary to have a skilled and educated workforce. This lack of equality has prevailed even when the skilled and educated increased. Those with the power in capitalism need to maintain this power and those with the power of nothing also had to be maintained. With people of African ancestry on the bottom rung of the societal, political and economic ladder, schooling was designed to maintain this status quo.

Schooling is a process that is intended to propagate and continue the society’s power relations and the established structures that upkeep those arrangements. Those in power still provide a means for its members to be in the teaching and learning process. These students still learn, develop, and maintain throughout their life cycles suitable motivation for partaking in socially valued and controlled patterns of action.

Those in power work to legitimize the school system as it stands, yet they write reports describing the failure of the educational system vis-à-vis people of African ancestry. They are not considering the influence these “truths” have on black Americans. They profess to recognize the failure and then propose more stepped up measures to overcome the failures. The ludicrous ideas are that the ones who created and administered for so long the unacceptable and dysfunctional policies and systems are the same ones making the proposal to address the failure of children of African ancestry.

For equity to exist for children of African ancestry within a schooling environment, they must be “educated”. Education is different from schooling. The use of a social justice curriculum draws a definitive distinction between schooling and education as it seeks to serve the whole child and provide tools, knowledge and skills that may be used to shape minds, shift attitudes and create empowerment. It is the process of spreading from one generation to the next information of the values, aesthetics, spiritual beliefs, and all things that give a cultural emphasis its uniqueness. Every cultural group must make things available for this transmission process or it will cease to exist. Thus, for equity to be developed, social justice curriculum must provide this type of “education”.

III. A Plan for Professional Development and Implementation

An instructional leader must be mindful of the historical and persistent economic, social and political context of the educational system he or she is engaged in. These structures are very prevalent in the leader’s mission to create a new system with different beliefs, practices and outcomes.

Given these circumstances surrounding the education of children of African ancestry, creating and developing a core belief with the aspects of social justice embedded within the classroom lesson activities would provide the students with ample reasons to learn the content with the hope and practice of making changes in their lives.

Teaching mathematics for social justice requires a change in attitude and behaviors for teaching and learning. In spaces where social justice is a priority, we see that for any change in habit where attitude and behavior are necessary for the change to begin to happen, there must be a methodology for maintaining and sustaining the change. Instituting the idea of social justice is no difference than any change in habit where attitude and behavior are necessary for the change to begin to happen.

A social justice curriculum must be more than an aim or method of instruction in one math teacher’s classroom; it must be a systemic, department-wide endeavor and supported by the building principal and other campus and/or district instructional leaders. If it is implemented in a systemic school-wide manner, the impact will be greatly increased. The maintenance and sustainability are contingent upon changing the systemic shortcomings of the current curriculum, attitudes, beliefs, and opportunities.

As the instructional leader of the school community, the principal must operationalize a vision that reflects high expectation through clearly stated goals according to Jordan-Irvine (1988). In this vision, the process of using social justice practices must be defined and developed. Social justice activities are needed that would purposely interact with the various home and community experiences that the children of African ancestry bring to school. In fact, Hilliard (1976) stated, “African-American people have a keen sense of justice and are quick to analyze and perceive injustice.”

To institute a comprehensive buy-in for this type of professional development, we outline the following steps:

1. An instructional leader should commit to convening meetings with the department(s) with the explicit purpose of planning for the implementation of a social justice curriculum. These planning meetings will include the development of a timeline with measurable goals, accountability measures, and plan for ways in which teachers could observe each other to support monitoring and fidelity of the curriculum. A suggested list of topics to consider when planning are:
 - i. Identifying the social justice issue to be addressed by the students
 - ii. Analyzing how comprehensive student data will be imbedded within mathematics instruction
 - iii. Developing a method for providing clear feedback to all instructors and participants
 - iv. Planning responses to the feedback from students, teachers, and the community
 - v. The short- and long-term methodology for implementing the curriculum
 - vi. Identifying a process for studying outcomes from the students' work and responses
 - vii. Identifying and implementing a variety of formative assessment strategies that support differentiation of instruction and offer multiple ways of monitoring student success
 - viii. Incorporating and adhering to district, state and national mathematics standards
 - ix. Integrating standards from other curriculum areas as appropriate

The definition of social justice would have to be discussed and agreed upon by the entire department by consensus. At this point, the department(s) would need to begin considering how a classroom or school should look, sound and feel if a social justice curriculum is taught.

2. The department members would then need to commit to researching “about” social justice, “with” social justice, and “for” social justice, to formally define the characteristics of a classroom or school when implementing various tasks using social justice. The team will also need to research areas (globally) where social justice is lacking. Areas include, but are not limited to, politics, economics, education, entertainment, health, labor, and war.
3. While a social justice curriculum is being established, periodic meetings with the department should address social justice issues, as well as how and where these ideas integrate with mathematics topics.

A social justice curriculum in mathematics will enrich the teaching and learning of ALL students by showing them how the subject is applied critically in solving real life issues that are often not approached in a classroom. Today's students are much more sophisticated in their experiences, and deserve instructional opportunities that challenge their intellectual growth and celebrate their diversity. The time for a serious commitment to implementing a social justice curriculum is upon us.



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