

**EDMT 7530 – Dr. Stinson
Summer 2020
Valena Spencer
Final Exam – Top 10 List
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Top 10 List

As an educator, the goal is for students to understand the core curriculum as it relates to the Georgia Professional Standards (GPS). While connecting mathematical content to the Mathematics Standards, I will also connect the content to the researched ideas that are described in my Top 10 from the Theory/Pedagogy of Mathematics Instruction at Georgia State University. I will implement these classroom behavior/practices into my 6th grade Mathematics classrooms as an educator who is seeking to develop students in varieties of mathematics expertise and develop their character as well.

According to the Georgia Department of Education, Grade 6 mathematics instructional time should focus on four critical areas: (1) connecting ratio and rate to whole number multiplication and division and using concepts of ratio and rate to solve problems; (2) completing understanding of division of fractions and extending the notion of number to the system of rational numbers, which includes negative numbers; (3) writing, interpreting, and using expressions and equations; and (4) developing understanding of statistical thinking. Within this framework, my classroom will have the theoretical stance within its curriculum plan, of a community of practice, culturally responsive and culturally relevant pedagogy with a social justice perspective. It recognizes the cultures and is inclusive to African-American, Spanish/Latinos and other cultures that are in the classroom. Each student will be recognized as a person and so they see me as a person allowing us to build a relationship while reaching for academic excellence together.

Top Ten changes in classroom behaviors/practices that I plan to implement this coming fall semester.

#10 Observe how children interact in the classroom.

Through intentional observation, I will always work to defuse racial or stereotype socializations such as dark-skinned vs. light-skinned, bullies being bad, and the fears of being Black in America. Young black girl's self-images are continually shifting, thus creating new and improved archetypes. Gholson and Martin's (2014) aim was to detail the relevance of how social networks determine who gets attention when it comes to learning mathematics. While those outside of the social cluster who longed to be part of it, failed to do as well. Girls classified as high-status cluster excelled within the community of practice.

#9 Introduce Bilingual learning.

Moschkovich (2002) gives thorough analysis on how language barriers affect the ability of a student to learn mathematics. As a student of Spanish, I am familiar with language barriers. Vocabulary and comprehension skills must be addressed for mathematics and science students to succeed. Bilingual students will be allowed to place the names of mathematic processes or shapes connected to the standard on the board along with the English word equivalent for bilingual or multi-lingual learning for the entire classroom.

#8 Create a home-like atmosphere in the classroom.

Hubert (2014) takes into consideration the student perspective of culturally relevant pedagogy (CRP). Students who had experience CRP in mathematics class were interviewed; Hubert found at the conclusion of her study the students had an "improved attitude and/or interest toward mathematics." They preferred

the CRP teaching over the traditional way of teaching. The creation of a home environment in the classroom concept gives the student a sense of belonging in the mathematics classroom with a caring teacher who is encouraging, supportive and positively affirming. When students feel the love and support of the teacher and other students feel like family, the performance in the mathematics classroom can be enhanced. Special days, like birthdays, will be acknowledged in classroom for all students.

#7 Use voice intonations to teach affectively.

I was especially interested in Boaler's (1998, 2000) information pertaining to voice intonations usefulness in my classroom. People often feed off the energy that you put out. Students sometimes listen unconsciously to the inflections in your voice in order to comprehend. Choosing a tone to establish an environment will be implemented verbally, volume, and through expectation. Setting the tone for excitement and cultural connection to the lesson will included highlighting an introductory video or story of a relevant historical figure for the class to connect to themselves.

#6 Treat students as competent to increase likeliness of compliance.

Ladson-Billings finds that many of the teachers hired in the lower class schools have unimaginative teaching, low expectations, and are using substandard textbooks. When low income students are grouped in low achieving classes, maintaining order becomes the goal as opposed to learning. Studies show that when there are opportunities to improve a child's experience in school, we can improve or reverse the outcome of his life. I will treat my students as competent and hold an expectation of myself as a teacher, to be open to cultivating the talents into a possible career idea for my students.

#5 Teach in an apprenticeship style of learning.

Apprenticeships, as a situated learning style, have been used as a learning tool for thousands of years to pass knowledge from one person to another. Lave (1996) examined various professions that previously had apprenticeships. I will allow individuals to gain knowledge from their own style of learning. Once there is an understanding, you can engage in the execution of the practice.

#4 The mind is a muscle.

Transforming the U.S. education system will take teachers buy in to establish culturally responsive classrooms, implementing tutoring, eliminating stereotypes and explicit work toward increasing student outcomes. Though the mind is a muscle that gets stronger with exercise, as claimed by Aronson (as cited in Cartledge et al, 2008 p. 260), it will take time consuming process of investigation of cultural markers to establish positive outcomes. Keeping the attention of students with differentiated instruction and a quick pace improves the learning. CLD students thrive when helping others as they help themselves. When including into my teaching the power of the mind and the success of African Americans in society, I too, would encourage the flexing of the mental as opposed to the physical Gloria Ladson-Billings (1995).

#3 Connect how mathematics is used in technology and in everyday life.

Skovsmose initiated a project with 14-15 year old students in Denmark, to highlight the use of technology in a mathematics classroom. The students were taught to bring math to life by learning of its use in society. Money, income and family budgeting will be placed at the center of my virtual classroom lessons highlighting the importance of graphs, charts and algorithms in the family setting. Emphases will be placed on the connections of mathematics and the principle design for marketing, business, and accounting systems in class assignments.

#2 Relate Mathematics content to life.

Boaler (1998, 2000) compared two schools communities over a 3-year span in her research on mathematics teaching and learning. When students are accustomed to situational learning, an inner strength develops giving them the confidence to execute the mathematics based on their beliefs. They gain the confidence to think for themselves like the Phoenix Park group. The students at Phoenix Park School provided more positive feedback; they developed problem-solving skills that will benefit them in the real world. I will use mathematics to allow students to interpret data, understand finances and make conclusions about social issues facing the world today.

#1 Use Mathematics to understand the complex and complicated things in the world.

Stinson, Bidwell, and Powell (2012) examine how to connect the personal pedagogy of the teacher to social justice mathematics in their classroom. Critical relevant pedagogy is a humanizing pedagogy that values students and teachers to move them in their lived worlds. Critical pedagogy allows students to use mathematics to understand complex and complicated things in the world. Connecting critical pedagogy to my personal psychological and theological pedagogy will make it easier to bring these social messages to my students for relevant and enhanced learning experiences. I will use the Black Lives Matter movement to lead students to data collection aligned to the standards that will create a conversation on social justice in the classroom. I believe that students' lives will be enriched and safer from knowing the statistics behind many social justice issues.

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