

Oct. 22-24, 2010

Long Island
University
Brooklyn,
NY



Creating Balance

in an Unjust World



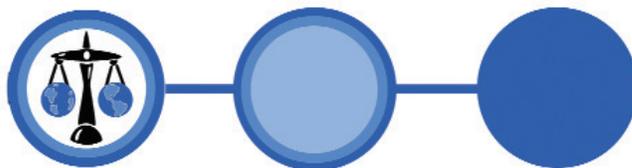
Welcome

Welcome to the third conference on mathematics education and social justice. The Creating Balance in an Unjust World conference brings together educators, parents, students, activists and community members to explore the connections between math education and social justice.

Through school visits, workshops, speakers and a youth panel we hope to strengthen and extend the network of educators who implement social justice curricula, use alternative assessments and explore ethnomathematics at schools and community groups across the country.

The current climate of education is tumultuous - with a growing presence of the privatization of education, attacks on teacher unions and deep budget cuts. During this challenging time for education, we hope that educators can bring back resources, curricula and other best practices to their respective educational spaces to promote a democratic education.

Thank you for participating in this conference and joining us in this journey. We look forward to see your continued participation in future conferences.



Schedule

Friday, October 22, 2010

All Day School Visits

6:30 PM Networking Event

Saturday, October 23, 2010

All Day Exhibitor Hall (HS Lobby)

8:30 - 9:30 AM Registration (HS Lobby)

9:30 - 10:30 AM Keynote (HS 107)

10:30 - 12:00 PM Workshops Session 1

12:00 - 1:30 PM Lunch

Youth/Presenter Luncheon (Pratt 250)

1:30 - 3:00 PM Workshops Session 2

3:00 - 4:30 PM Workshops Session 3

Sunday, October 24th, 2010

10:00 - 11:30 AM Workshops Session 4

11:30 - 1:00 PM Youth Panel (HS 107)

School Visit Sites

Ella Baker (Pre-K to 8th grade)
ellabakerschool.net

Urban Academy (High School)
urbanacademy.org

Vanguard High School
vanguardnyc.net

East Side Community High School (6th-12th grade)
eschs.org

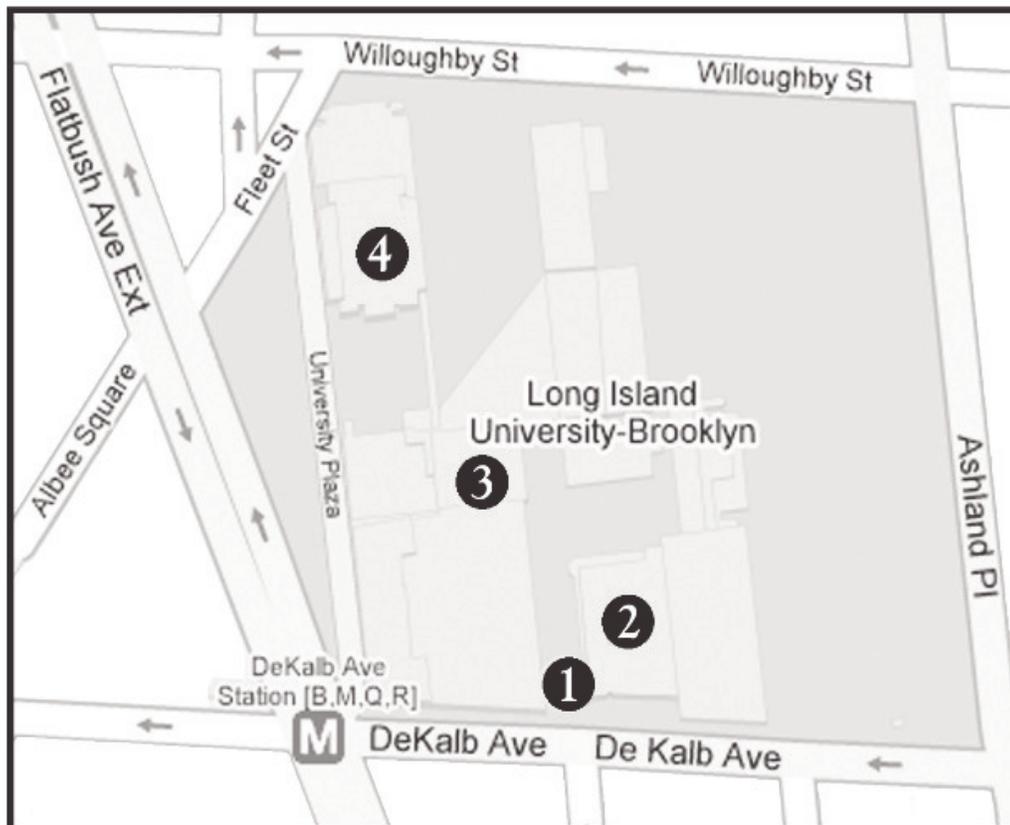
Lyons Community School (6th – 12th grade)
lyonscommunityschool.org

The Earth School (Pre-K to 5th grade)
theearthschool.org

Community School for Social Justice (High School)
<http://schools.nyc.gov/SchoolPortals/07/X427>

Bushwick School for Social Justice (High School)
bssj.net

Conference Map



- 1 Entrance Gate (*on DeKalb Ave*)
- 2 HS Building (*Keynote, Panel, Registration, Vendors, Networking Lunch*)
- 3 Pratt Building (*workshops*)
- 4 H Building (*workshops*)

Speakers



Joi Spencer **Keynote Speaker**

Joi Spencer, Ph.D., is assistant professor at the University of San Diego School of Leadership and Education Sciences, having earned a B.A. and M.A. at Stanford University, and a doctorate in education, with an emphasis in mathematics education, at UCLA. Her dissertation, “Balancing the Equation: African-American Students’ Opportunity to Learn Mathematics with Understanding in Two Central City Middle Schools,” examined learning opportunities and mathematics identity of both successful and unsuccessful African-American students. While a doctoral student, Spencer was a fellow of the National Science Foundation’s Diversity in Mathematics Education Center for Teaching and Learning, a collaboration with University of Wisconsin, Madison, U.C. Berkeley and UCLA. She is currently working on a chapter for her upcoming Second Handbook of Research on Mathematics Teaching and Learning. She is the founder of King’s Academics: Schools for Non-Violence and Social Justice - <http://www.kingsacademies.org/>

Maisha Moses **Panel Facilitator**

Maisha Moses is a co-director for the Young People's Project. From 1989 - 1999 she worked with the Algebra Project, first as a college student then as a local and national trainer. In 1997 she began working with the Young People's Project to develop its math literacy worker training program. She holds a Masters degree in Mathematics from Southern Illinois University.

Speakers (cont'd)

Christopher Nho

Youth Panelist

Christopher Nho is a junior at Northwestern University, where he studies Secondary Education with a concentration in math. He also breakdances, which he hopes he can one day merge with his passion for teaching.

Selledia Ball

Youth Panelist

Selledia Ball is a full time trainer with the Young People's Project programs in Boston and Cambridge, MA. She started with YPP as a 6th grade student at Brinkley Middle School in Jackson, MS, and over the past 12 years has played a number of roles within the organization.

Patrick Catalano

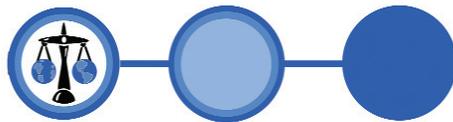
Youth Panelist

Patrick Catalano is a math and secondary education major at The College of New Jersey and a former teacher at Providence Summerbridge. He is an avid juggler and am exploring the possibilities for synthesizing math education with juggling patterns.

Jackie Suarez

Youth Panelist

Jackie Suarez is entering her second year as a College Math Literacy Worker with the YPP Cambridge program. She is a senior at Tufts University majoring in Peace and Justice with a concentration in Education. Jackie is originally from Glenrock, NJ.



Workshop Session 1

Opening the Gates to Math Literacy by Opening the Minds of Teachers of Young Children

Eunice Goldberg, Edna Bazik

National-Louis University

Skokie, IL

Pratt 120

One of the biggest obstacles to math literacy and equal access involves teachers in the primary grades who are insecure in their own math knowledge. National-Louis University has developed a new math program that addresses the needs of k-8 teachers of mathematics. Math insecurity and fear often has its roots at the very beginning-as early as pre-school. If teachers develop skills to provide the appropriate interventions the gate will be opened for more students. In this session we will explore and solve problems with a fresh look at the causes of early misconceptions and how to avoid them.

In addition to the Mathematics: Education for social Justice

Marilyn Frankenstein

University of Massachusetts, Boston

Boston, MA

Pratt 519

For me, the overarching purpose of all education is to contribute to the struggle for a more just world. Academic studies should be about getting outraged (in other words, finding out what's going on) and focusing that outrage into actions/reflections that move us, peacefully, but forcefully, in the direction of more justice. I am not going to talk much about mathematics education; but, rather about ideas that I argue should underlie all education, ideas that are important in all teaching to encourage students to commit and to work for social justice. Whenever possible, I will illustrate these general ideas with examples from mathematics curricula.

Workshop Session 1 (cont'd)

Share Your Social Justice Themed Activities!

Jason Johnson

Middle Tennessee State University

Murfreesboro, TN

Pamela Moses-Snipes

Winston-Salem State University

Winston-Salem, NC

Pratt 121

In this session, participants will explore activities used in an algebra course. Participants are encouraged to bring activities, projects, etc. they have used (any level PreK – 16) to share with others!

English Language Learners and Mathematics Vocabulary: 5 C's of Planning and Instruction

Antony Smith and Robin Angotti

University of Washington Bothell

Bothell, WA

Pratt 521

The conceptual density of mathematics texts presents a challenge to diverse populations of secondary school students. A particular concern is the impact of complex vocabulary on the reading comprehension and conceptual understanding of English Language Learning (ELL) students. This interactive workshop session addresses this issue by focusing on the 5 C's—five elements of planning and instruction that scaffold students' understanding of vocabulary in relation to mathematics concepts. Participants will engage in small-group activities applying the 5 C's to specific lesson plans to gain understanding of ways to support the vocabulary and conceptual learning of ELLs in secondary mathematics classrooms.

*Participants are encouraged to bring graphing calculators

Workshop Session 1 (cont'd)

How Much Is Too Much?

Denise Deagan, Charlie Brover, Jane Tarica, Mark Lance
The New York City Math Exchange Group (MEG), Borough of
Manhattan Community College/CUNY *New York, NY*

H316

Most students learn that the majority of Americans are “middle class,” but the facts of social stratification in the U.S. tell a different story. Working with a pictograph activity adapted from *Rethinking Mathematics* (*Rethinking Schools: 2005*, Gutstein and Peterson, eds.), an Adult Basic Education/GED math class at Borough of Manhattan Community College (CUNY) explores the distribution of wealth in the United States and imagines more socially just alternatives. Students employ the basic mathematics of data analysis and interpretation. Workshop participants will do the math activity, review video of the class, and talk with students.

Access to the Game: Lessons on Equity and Engagement from Mathematic Reform

Crystal Hill, Dr. Daniella Cook
Indiana University Purdue University Indianapolis

Pratt 618

Indianapolis, IN

This workshop will examine the challenges faced by presenters in one rural community engaged in a mathematics reform effort. Scholars are not passive producers of knowledge; they must become active in the struggle for social justice within education (Matsuda, 1995). With that aim, a group of researchers collaborated with a community partner to design and implement an innovative approach to improving access to high level mathematics curricula to African American students in two rural counties. This workshop will explore the extent to which this approach improved math achievement, students’ confidence in math, and identified and addressed parent advocacy needs.

Workshop Session 1 (cont'd)

Locally Relevant Math Curricula for Engagement, Access, and Social Justice

*Vivian Lim, Sue Riemann, Kelly Collings, Tyrone Freebairn, Luke Reinke, Caroline Ebby, Janine Remillard, Nina Hoe, Emily Magee
Philadelphia School District/University of Pennsylvania*

Pratt 617

Philadelphia, PA

In this session, we present our ongoing work in adapting the contexts used in middle school math curriculum to be more relevant and engaging for students in our community. Our goal is to use community-based contexts to increase students' access to mathematical knowledge and skills as well as to encourage critical ways of thinking about and interacting with the world around them. Participants will work through one of our activities, learn about the process of developing locally relevant curriculum and hear about the effects of this curriculum on students and the teachers involved in using and developing it.

Using Mathematical Habits of Mind to Understand the BP Deepwater Oil Hemorrhage

Marie Anne Marshall

New York University

New York, NY

H313

Facilitators will share their experiences of designing a unit focusing on the BP oil spill for students enrolled in an algebra readiness summer school program. The unit was designed as a way to allow students opportunities to use mathematics and mathematical Habits of Mind as tools for understanding this historical environmental crisis. Student work, reflections from students and teachers, successes and challenges will also be presented. Participants will be asked to share reactions to the unit and will work together to generate ideas about improving and expanding the unit.

Workshop Session 1 (cont'd)

Teaching with “Rigoritivity” (rigor + creativity) within a “students teaching students” model

*Patrick Catalano, Christopher Nho, Denise Ramos, Natalie Solomon,
Dulari Tahbildar*

Providence Summerbridge

Providence, RI

H315

In this workshop, participants will be asked to deconstruct a "real world" algebra lesson, then reconstruct it so that it lives up to the ideal of "“rigoritivity”" — the integration of rigor and creativity — in the middle school math classroom. The workshop will explore the unique advantages and challenges of a “students teaching students” model for middle school students and discuss implications for teacher education. Participants will come away with strategies to leverage the power of peer teaching and learning as well as how to make math relevant for low-income, urban, middle school students of color.



Workshop Session 2

Math Literacy for Hazard Mitigation: Bringing Math, Engineering, and Real-life Together

Susan Patterson

Duncanville High School/University of Texas at Arlington

Pratt 121

Duncanville, TX

“When am I ever going to use this?” students ask. Math literacy often takes a back seat to prescribed curricula and testing. This session, based on my participation in the University of Texas-Arlington’s NSF Research Experience for Teachers program, shares how to design a high school math lesson around a complex engineering problem. An example of math literacy, it shows how students learned to apply math to model and mitigate real-life disasters and make connections between engineering, math, and the ethics of construction, materials, urban planning, etc. The relevance of math is apparent, as is its role in engineering careers.

Mathematics of the Opportunity Gap: How Much Will it Cost Us?

Carolee Koehn, Brett Davis

University of California, Los Angeles

Los Angeles, CA

Pratt 519

Equity in mathematics education: is it a matter of economics? In this interactive workshop, participants will explore how issues of equity can be analyzed from an economic perspective. Participants will engage in a mathematical activity accompanying the 75th anniversary of Carter G. Woodson’s book- *The Mis-Education of the Negro* to investigate the College Opportunity Ratio (COR) and graduation rates in efforts to explore lifetime earning potential and its impact at the local and national level.

Workshop Session 2 (cont'd)

Using the college curriculum to address Math and Social Justice

Sam Kaplan

University of North Carolina, Asheville

Asheville, NC

Pratt 521

A central impediment for many college math departments to make lasting impact is that addressing community needs is often done using personal time and without specific credit. The math department at UNC Asheville has developed a course called "Math and Social Justice" that weaves together department, university and community goals. In addition, the math department has played a central role in the university bridge program, Summer Opportunity for Academic Readiness as an effort to increase minority representation in STEM majors.. We present the thinking and preparation that went into our departmental effort to make a difference on and off campus within the professional framework presented by academia.

Hypothetical Upstander: Two Math Projects for High School Students

Daniel Hayman

The Facing History School

New York, NY

Pratt 617

This interactive presentation explores the creation of a type of social justice math projects, hereby known as “hypothetical upstander” math projects. Two examples of these projects will be presented fully, and recommendations for creating projects of the type will be shared. Strengths, weaknesses and opportunities for adaptation of both the projects and the overall project type will be discussed with participants. A social justice math project of a different type will also be presented as a point of contrast.

Workshop Session 2 (cont'd)

Queering Mathematics Education: Explorations and Conversations

Kathleen Rands

Elon University

Elon, North Carolina

Pratt 618

In this interactive session, we will explore what it might mean to “queer” mathematics education. The facilitator will share ideas about two possible approaches to queering mathematics education. The first approach focuses on including lesbian, gay, bisexual, and transgender (lgbt) issues and people in mathematics education. The second approach, “Mathematical Inqu[ee]ry” uses queer theory as a lens in the mathematics classroom. Participants will explore these ideas in more depth in small groups and with the whole group. Finally, the facilitator and participants will brainstorm additional possibilities for queering mathematics education.

Critical Mathematics: Creating Opportunities to Mathematize the World in High School Math Courses

Rodrigo Jorge Gutiérrez and Charles Collingwood

University of Arizona, Department of Teaching, Learning and Sociocultural Studies

Tucson, AZ

H315

This workshop will focus on the integration of critical mathematics into upper-level high school mathematics courses. The facilitators will share their successes and struggles in creating a critical mathematics learning environment in a public high school precalculus class consisting predominantly of students of color. They will offer specific critical mathematics activities that they implemented and describe what pedagogical and curricular practices were employed, how various classroom goals were negotiated, and how students engaged in or resisted such non-traditional instruction. Session participants will share similar experiences before breaking into small groups to collaboratively construct activities for their course of interest.

Workshop Session 2 (cont'd)

Peer-teaching and peer-authority in Algebra Project Classrooms

Xavier Cheato, Tavon Lockwood Lewis, Bryant Muldrew
Baltimore Algebra Project *Baltimore, MD*

H313

Algebra Project curriculum and pedagogy depend on student-driven learning cultures, where young people are the power in the room. This entails youth roles both as content teachers and as mediators of the classroom environment. Young people from the Baltimore Algebra Project will demonstrate how they develop both math thinking and ethical/political thinking in their peers. Discussion will focus on the “Three Tiers of Demand”: demand on oneself, demand on one’s peers, and demand on the larger society. In this context, students will also present ongoing participatory action research on relations between health, education and incarceration.

Workshop Session 2 (cont'd)

A Social Justice Data Fair: Active Inquiry as Critical Pedagogy

Michelle Munk, Beth Alexander

The Linden School

Toronto, Ontario, Canada

Pratt 120

Students become critical mathematicians when they are actively engaged in the production of mathematical knowledge in the classroom. This workshop, aimed at teachers of all levels, will explore social justice math pedagogy through our experiences with our school's Social Justice Data Fairs. We will examine some pedagogical styles that support social justice curriculum in the math classroom to empower student learning. Using examples of student work, we will illustrate how students from Grades 1 to 12 used data management skills to better understand issues of social justice in our Data Fair. Workshop participants will complete several hands-on activities that illustrate the importance of using an inquiry-based approach in the classroom. Participants will receive materials to support the implementation of a Social Justice Data Fair in their own schools.



Workshop Session 3

Animal Welfare in the Curriculum: Community Connections and Quantitative-Based Service-Learning

Stephanie Clark

The Humane Society of the United States (Student Outreach Program)

Pratt 120

East Haddam, CT

This session will guide participants in an overview of the various animal welfare issues at community, state, and national levels. Attendees will be introduced to how these issues impact more than animals and how addressing this social concern will affect the community as a whole. Through topics such as statistics, percentages, and financial literacy, educators can combine social studies, mathematics, and service-learning. The session will include sample lessons, a breakout session and sharing by participants, as well as tips for partnering with local animal welfare organizations to create service-learning activities that showcase mathematics in action while creating a stronger community.

Makemakika: The dead mosquito and Hawaiian mathematics

Eomailani Kukahiko

University of Hawaii at Manoa

Honolulu, HI

Pratt 121

This presentation will examine the unique challenges of teaching mathematics within a native Hawaiian teacher preparation program and Hawaiian language immersion setting. In particular it will look at traditional counting systems, imposed mathematics worldview, and newly created mathematics vocabulary.

Workshop Session 3 (cont'd)

Getting Deep: Using Photo-Elicitation to uncover how cultural, ethnic, and professional identities empower math teaching

Theodore Chao

The University of Texas at Austin / Space12

Austin, TX

Pratt 618

In this workshop for teachers and teacher educators, we introduce the photo-elicitation interview (PEI) as a tool for opening up windows into our world as math teachers. The PEI asks teachers to take photographs of their world and use them to create a narrative about who they are as mathematics teachers. Sharing this narrative—which is our own story about how and why we teach math—becomes an incredibly empowering and reflective experience for all teachers, and helps us build the confidence to fuse our own cultural, ethnic, and professional identities with our math teaching.

Beyond Code Words: New Discussions of Expectations in School Mathematics

Robert Wieman and Tonya Gau Bartell

University of Delaware

Newark, DE

Pratt 519

Because school mathematics acts as a gatekeeper to educational opportunity in the US, reformers have advocated high expectations for all students. They hope high expectations will increase opportunities for all students to engage in challenging school mathematics. In many schools, calls for high expectations have resulted in centralized control of instructional decisions. Teachers find themselves responding to seemingly conflicting imperatives to meet students where they are, and hold them to rigorous academic account. This session presents the story of teachers' responses to these dilemmas. Through discussion of these stories, we will think together about how to foster productive discussions about high expectations and unintended consequences.

Workshop Session 3 (cont'd)

Is College Really Worth It...

Dr. Michael Farber

Camino Nuevo High School

Los Angeles, CA

Pratt 521

This interactive, experiential based workshop will provide participants with an opportunity to explore a series of various math activities that provide a platform for students to use mathematics as a tool to critically think about the social implications of poverty and how it relates to the American Dream and their personal educational trajectory. Using a multi-media experience this workshop is designed to share with participants strategies that provide students with opportunities to synthesize reading comprehension, media literacy, and math literacy as they deepen their understanding of poverty and the American Dream and strengthen their critical math literacy skills related to statistics, problem solving, and linear systems.

Learning and Mapping for Social Justice in Mathematics Classes

Haiwen Chu, Laurie H. Rubel, Lauren Shookhoff

Graduate Center of the City University of New York

H316

New York, NY

This hands-on workshop will engage teachers in exploring global, national, and local maps as a form of representation and mapping as a process for connecting student mathematics learning with social justice issues. Teachers will examine multiple kinds of maps for representing different aspects of the same geographical area. By engaging in different activities involving mapping, teachers will experience and reflect upon how maps and mapping can be incorporated into their curriculum. One particular focus will be how mapping opens spaces for students' lived experiences to enter into curriculum and how this supports social justice education.

Workshop Session 3 (cont'd)

Using Mathematics as a Weapon in the Struggle: Challenges and Possibilities in the Classroom

Rico Gutstein and Patricia Buenrostro

*Greater Lawndale High School for Social Justice/University of Illinois,
Chicago* *Chicago, IL*

H313

We will give an overview of teaching mathematics for social justice, then discuss a 12th-grade Chicago neighborhood (i.e., non-selective enrollment) public school math classroom, where students investigated social reality using mathematics, and learned both mathematics and about their world. We studied units on Obama's election, Neighborhood Displacement, HIV-AIDS, Criminalization of Youth/People of Color, and Sexism. Session participants will watch ~18 minutes of classroom video (displacement unit), then in small groups, discuss/critique/analyze critical mathematics in practice. We will conclude with a whole group discussion about the challenges and possibilities of using mathematics as a weapon in the struggle for social justice.

Workshop Session 3 (cont'd)

Using Egyptian numerical-puzzle and algebraic ideas to teach and deepen understanding of solving equations

Dr. Arthur B. Powell

Rutgers University

Newark, NJ

Pratt 617

Undergirding the theory and practice of mathematics education for social justice is respect. For teachers, this implies that they respect their own culture and their students' cultures. Teachers who respect theirs and their students' cultures feel deep admiration for their own and their students' abilities, qualities, and achievements. They appreciate and incorporate diverse cultural practices into their pedagogy. In this workshop, I will involve participants in an example of respecting a culture that comes from my own teaching. It will be a curricular unit that I have used with students whose mathematics performance indicated that they needed work on their pre-algebra skills. Through the unit, students learn to solve sophisticated, complex equations with ease and respect a mathematical practice of ancient Egyptians.

Workshop Session 3 (cont'd)

From “Proofs” to “Power”: Mathematics as the key to student activism with a special look at the Personal Proof Project

Alice Cook and Elizabeth Tison

Capital City Public Charter School

Washington D.C.

H315

Activism. Justice. Passion. Mathematics empowers and inspires students to change their world. This workshop, facilitated by Capital City PCS teachers and students, will examine the Personal Proof Project, connecting Geometric proofs and activism. Using protocols, attendees will discuss challenges and benefits of emphasizing social justice in mathematics curriculum such as: incorporating required skills and standards for testing, creating equitable curriculum, and the effect on diverse populations and students with special needs. The workshop is designed for participants to network, share, and receive feedback; attendees are encouraged to bring their own math social justice curriculum, projects, or plans. D.C. High Schoolers use

Geometric Logic to Create Change:

<http://www.takepart.com/news/2010/06/18/prove-it-dc-high-schoolers-use-geometric-logic-to-create-change>



Workshop Session 4

A Gift from the Tshokwe people: Creating and Testing Mathematical Hypotheses

Ellen Davidson

Simmons College, Department of Education

Boston, MA

Pratt 120

This session explores a mathematically robust investigation on Lusona (from the Tshokwe people of Angola/Zaire/Zambia) taught in a fifth grade class. At first glance Lusona appear to be simple drawings following a visual pattern. In reality investigating Lusona can lead to serious algebraic analysis with a focus on creating and testing hypotheses. Mathematics content focuses on factors and multiples. (Telling you more would interfere with your own mathematics work with this material.) In this session you will have the opportunity to first work with the mathematics yourself and then learn about what fifth graders learned through their work with Lusona.

Bench-Building with Urban Workshop NYC

Dan Morgenroth, Jonas Shantz, Caroline Suh

Urban Workshop NYC @ Lyons Community School

Brooklyn, NY

Pratt 121

High school students in the Urban Workshop class at Lyons Community School spend three hours a day working on community construction projects around the five boroughs. In this workshop, our students will guide participants through the process of using a set of plans to build a bench, starting with a 12:1 scale model, then a 2:1 scale model, and finally the real thing. Students will share some of their own experiences learning math through this process in Urban Workshop, and explain how their community construction projects connected to various social justice issues in underserved NYC neighborhoods.

Workshop Session 4 (cont'd)

Visualizing time and constructing temples: two projects in Ethnomathematics

Jennifer Wilson

Eugene Lang College, New School for Liberal Arts *New York, NY*
Pratt 521

In this workshop we will explore two classroom projects in Ethnomathematics. We will begin with calendars, contrasting methods of keeping time that are tied to physical phenomena with those that are based on abstract cycles. We will compare visual representations and calculations using our Gregorian calendar with those of an Indonesian calendar, and discuss how these ideas re-enforce concepts about factors and multiples as well as numerical reasoning skills. The second half of the workshop will look at geometric constructions from the Sulba Sutras - ancient Sanskrit texts on temple construction and discuss how they are related to an approximation of pi.

Math And The City: Rethinking Teacher Education to Support Math Literacy for All Students By Drawing on Local Resources

Lisa Edstrom, Sonia Medrano, Alana Sivin

Barnard College

New York, NY

Pratt 520

This session will present the successes and challenges of teaching Math and the City for the Barnard Education Program. This unique course, first offered in spring 2010, brings together Barnard and Columbia undergraduates who have a strong interest in mathematics and/or teaching, and in-service teachers working in local public schools. The course draws upon New York City as a resource, and challenges participants to find ways to work within and push the limits of prescriptive math curricula to make math more meaningful and accessible to all students. After the presentation, participants will engage in discussion about implications for teacher education.

Workshop Session 4 (cont'd)

Addressing equity through real world, problem-centered learning in the mathematics classroom

Dr. Roser Gine

Melrose Public Schools and Education Development Center

Melrose, MA

Pratt 617

In this session, participants explore student understandings gained through a problem-centered mathematics experience. A mathematics unit entitled, *Optimizing Media Reach: Decision-making and Mathematics*, is shared with participants to provide fertile ground for using real-world and career-centered applications of mathematics in their classrooms. While participants work on an activity from this linear programming unit, they consider support structures that can be used with students as they solve a problem for optimizing media reach in staging an event within their own communities. In particular, the session emphasizes pedagogical strategies for setting up a math task, for maintaining the cognitive demand of the task during its enactment, and for orchestrating a productive mathematical discussion with students.

Workshop Session 4 (cont'd)

Using Math to Study Homelessness and the Absolute Value of Human Life

Edel Reilly and Julie Bisi

Indiana University of Pennsylvania

Indiana, PA

Pratt 618

Homelessness is an issue that affects many of our students today. Statistics show that 1 out of every 50 children are homeless (National Coalition for the Homeless, July, 2009). Administrators, teachers, and students are often unaware of the difficulties that some of their students/peers may be facing outside the classroom (NCLB, Nilan). The purpose of this workshop is to demonstrate a research-based, service-learning approach that allows educators to introduce this sensitive issue as they strive toward creating a more empathetic and proactive environment in their classrooms through the integration of children's literature, mathematics, research, group discussion, problem solving, and writing.



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Edited by Eric Gutstein and Bob Peterson

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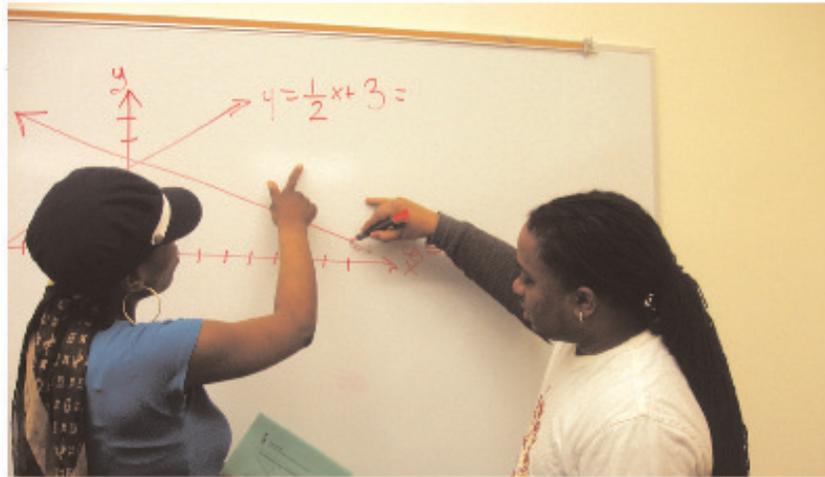
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By Nancy Schniedewind and Ellen Davidson

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718-780-4371 sara.salloum@liu.edu



*For Middle School Certification 7 additional credits needed.

Feel like teachers and families are getting pushed aside in decisions about education?

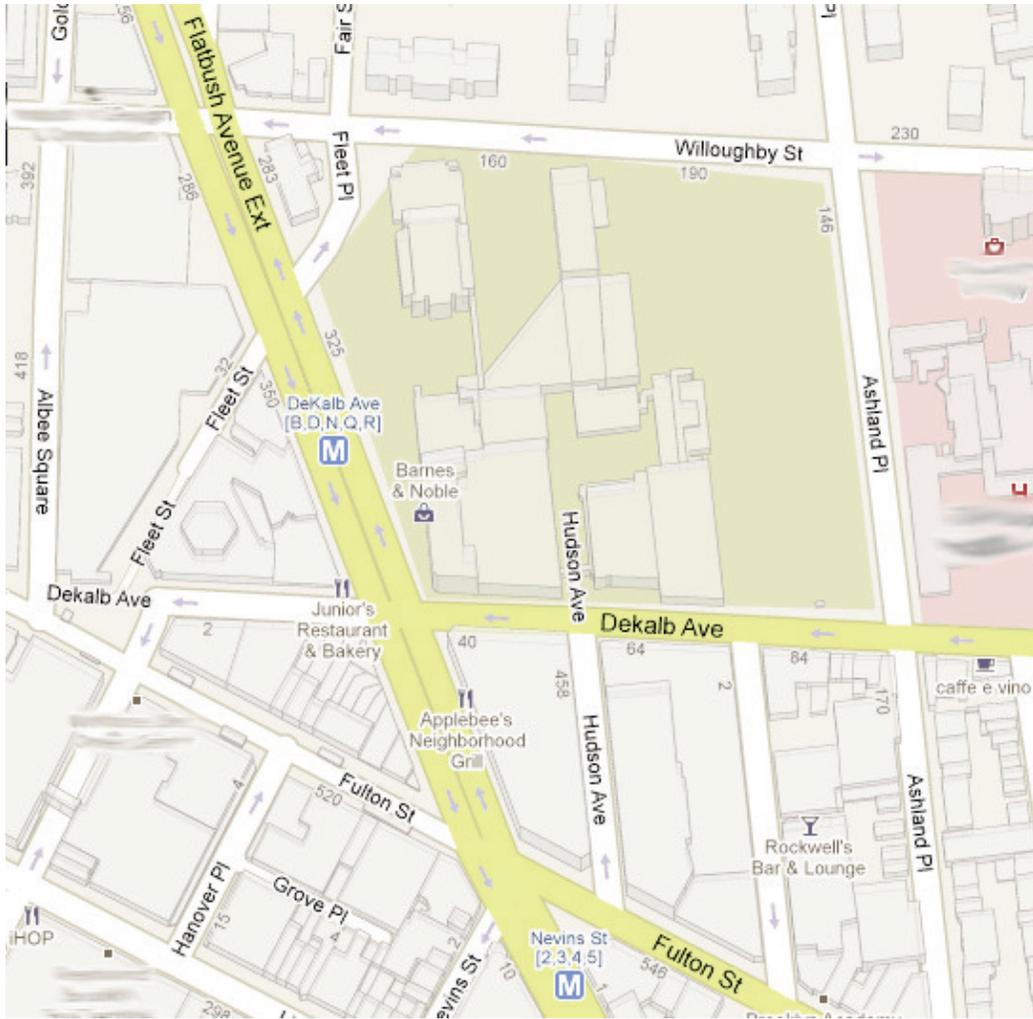
Ready to organize for democracy in our union and our school system?

**TEACHERS UNITE'S 2010-2011
LEADERSHIP
PROGRAMS**

Learn about our monthly leadership sessions at
WWW.TEACHERSUNITE.NET

Teachers Unite is a membership organization of public school educators building power so that our union (UFT) fights for educational and social justice for the low-income communities served by New York City schools. We believe that a strong organization of activist teachers, working in coalition with parents and students, will transform our city, and its schools, to best serve all New Yorkers.

INFO@TEACHERSUNITE.NET 212-675-4790



Local Eateries

Applebee's Neighborhood Grill
 395 Flatbush Avenue
 718-834-0800

Junior's Restaurant & Bakery
 386 Flatbush Ave
 718-695-1258

Caffè e Vino
 112 Dekalb Ave
 718-855-6222

Ruthies Restaurant
 96 Dekalb Ave
 718-246-5189

Rice
 66 Dekalb Ave
 718-858-2700

Pipitone Pizzeria
 100 Dekalb Ave
 718-858-4376



2010 Creating Balance Conference

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**Thanks to Erica, Geoffrey, Kari, Liza, Marilyn, Sara,
Swapna, Tara and all of the volunteers**

**interested in joining the planning committee?
contact info@creatingbalanceconference.org**