Creating Balance in an Unjust World

Conference Program

Conference on Math Education and Social Justice

Long Island University • El Puente de Williamsburg
Brooklyn, NY • April 27 - 29

Welcome Message

There is no such thing as a neutral education process. Education either functions as an instrument which is used to . . . bring about **conformity**, or it becomes the **practice of freedom,** the means by which men and women deal critically and creatively with reality and discover how to **participate** in the transformation of our world."

- Paulo Freire

Welcome to the first annual conference on Math Education and Social Justice: Creating Balance in an Unjust World. Thank you for joining us in what promises to be an extraordinary and historic weekend.

Over the next three days, you will be joining more than 400 educators, activists, parents, and young people from around the country to explore the connections between math education and social justice.

The twenty eight workshops, three panels, and Keynote address from legendary Civil Rights activist Bob Moses will encourage us to ask questions crucial to math education: How has math literacy been a gatekeeper to educational and personal success? How can issues of social justice be integrated into math curriculum as a means of enriching, and not sacrificing, mathematical content? How do issues of race and class affect the teaching and learning of mathematics?

The discussions we will engage in throughout the course of this weekend are an important first step in answering these critical questions, but we must not stop there. We must bring these conversations and ideas back to our schools and local communities in order to address the injustices and inequities our own students and communities are facing.

As Freire reminds us, only when our schools become spaces of participation, and not conformation, can we truly begin to create balance in an unjust world.

Sincerely,
The "Creating Balance" Organizing Committee
Benjamin, Beth, Charlotte, Erica, Jon, Jonathan, Kari, Mercedes, Nick, Sally, Sam, and Taeko

Conference Schedule

Saturday, April 28

8:00 - 9:00	**Sign-In (HS Building)**
9:00 - 9:45	**Opening Plenary (HS 107)**
9:45 - 10:00	*break*
10:00 - 11:30	**Workshop Session #1**
11:30 - 11:45	*break*
11:45 - 1:00	**Panel, Part 1 (HS 107)**
1:00 - 2:15	*lunch*
2:15 - 3:45	**Workshop Session #2**
3:45 - 4:00	*break*
4:00 - 5:30	**Workshop Session #3**
5:30 - 7:00	*break*
7:00 - 8:30	**Keynote: Bob Moses (HS 107)**

Sunday, April 29

9:00 - 10:30	**Panel, Part 2 (HS 107)**
10:30 - 12:00	**Action Groups**

General Information

CONFERENCE WEBSITE:
www.radicalmath.org/conference

JOIN THE LIST-SERV:
http://groups.google.com/group/RadicalMath

CONFERENCE HOST SITES:

El Puente
www.elpuente.us

El Puente is a community human rights institution that promotes leadership for peace and justice through the engagement of members (youth and adult) in the arts, education, scientific research, wellness and environmental action. Founded in 1982 by Luis Garden Acosta, El Puente currently integrates community campaigns of its Center for Arts and Culture and its Community Health and Environment Institute (CHE) within its three neighborhood Leadership Centers and its nationally recognized public high school, the El Puente Academy for Peace and Justice. Organizing in North Brooklyn and beyond, El Puente remains at the forefront of community/youth learning and development issues and as such, initiates and impacts social policy both locally and nationally.

Long Island Univerisity, School of Education
www.brooklyn.liu.edu/education

LIU School of Ed has a complete urban focus and prepares teachers, counselors, administrators, and school psychologists for the adventure of urban education. A strength of the LIU/Brooklyn School of Education is that many of their future and practicing educators are themselves urban dwellers, immigrants, or members of a wide variety of ethno-linguistic and racial groups. They bring to the University the experiential knowledge of diverse urban communities essential to educate the children and families in these communities.

Host Schools

Thank you to all of our host schools:

El Puente Academy for Peace and Justice (9 - 12)
Brooklyn, NY
www.elpuente.us

Institute for Collaborative Education (6 - 12)
New York, NY
ice.r9tech.org

East Side Community High School (6 - 12)
New York, NY
www.eschs.org

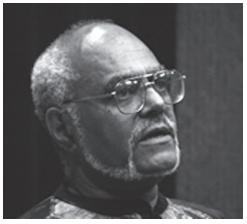
Fannie Lou Hamer Freedom High School (9 - 12)
Bronx, NY
718.861.0521

Muscota New School (K - 5)
Brooklyn, NY
www.muscota.org

The Earth School (K - 5)
New York, NY
www.theearthschool.org

The Harbor School (9 - 12)
Brooklyn, NY
www.newyorkharborschool.org

Speakers & Panelists



Bob Moses - KEYNOTE

Founder, The Algebra Project

Bob Moses is the author of the Algebra Project-Transition Curriculum , which uses experiential learning drawn from the work of Dewey, Lewin, Piaget, Quine, and Kolb--and a five-step curricular process Moses innovated--to help middle school students make the conceptual shift from arithmetic to algebra and be prepared for algebra in the eighth grade, and thus a college preparatory math sequence in high school. These materials formed the backbone of Algebra Project teacher and trainer training, and implementation throughout the USA during the 1990s, with a particular focus on the Southern U.S. Mr. Moses is founder and president of the Algebra Project Inc., and also serves as director of the project's curriculum development program, while teaching algebra and geometry full-time at Lanier High School in Jackson, Mississippi.

Marilyn Frankenstein

Co-Founder, Critical Mathematics Educators Group

Marilyn Frankenstein has been teaching Quantitative Reasoning at the College of Public and Community Service at UMass Boston since 1978. The course stresses how reasoning quantitatively about public and community issues is connected to using math to work for justice and to work against injustice. She is also one of the founders of the Critical Mathematics Educators Group, and has given seminars on her work in Australia, Brasil, Canada, Denmark, England, Mozambique, New Zealand, and South Africa. She is also an acclaimed writer and has authored dozens of books and articles.

Luis Garden Acosta
Founder, El Puente

Luis Garden Acosta is a national voice for human rights in the context of community building. In 1982, he founded El Puente in his home community of Williamsburg, Brooklyn. For the past 23 years, he has led El Puente as a beacon for holistic learning and development, inextricably tied to the quest for peace and justice. Luis embodies a commitment to the arts with a passion for science and a missionary zeal for peace and justice. He is at once a not-for-profit CEO who is at home leading community campaigns for educational reform and environmental justice; a Principal Investigator for federally funded, scientific research; and an arts advocate who chaired and founded diverse arts organizations.

Cathy Wilkerson
Middle-School Math Coach

Cathy Wilkerson was active in the civil rights movement, SDS and later the Weather Underground. For the past twenty years she has worked as an educator in adult education, high school and middle school mathematics. She is currently working with middle school mathematics teachers.

Eric (Rico) Gutstein
Author of "*Rethinking Mathematics: Teaching Social Justice by the Numbers*"

Eric (Rico) Gutstein teaches mathematics education at the University of Illinois-Chicago. His work is in teaching mathematics for social justice, Freirean approaches to teaching and learning, and urban education. He has taught middle and high school mathematics. Rico is a founding member of Teachers for Social Justice (Chicago) and is active in social movements including the

struggle against gentrification in Chicago. He is an editor of Rethinking Mathematics: Teaching Social Justice by the Numbers (2005) and author of Reading and Writing the World with Mathematics: Toward a Pedagogy for Social Justice. He currently co-teaches math and supports math teachers at the Greater Lawndale/Little Village School for Social Justice in Chicago.

Patricia Buenrostro

Math Coach, Little Village/Lawndale High School

Patricia Buenrostro has taught secondary mathematics for 10 years and only recently has engaged in developing mathematics for social justice with Rico Gutstein as a graduate student at the University of Illinois at Chicago. She is a community/education activist in her community and was part of a 19-day hunger strike to bring attention to the Mayor's failure to follow through on a promise to build a new school in the Little Village neighborhood of Chicago. She is interested and committed to contributing to the transformation of schools into community centers and holding policymakers accountable for unjust practices and outcomes.

K. Wayne Yang

Founder, East Oakland Community High School

K. Wayne Yang is an assistant professor in Ethnic Studies at UCSD. His research focuses on youth popular culture, social movements in education, and the postcolonial nature of the U.S. ghetto. He is also the co-founder of East Oakland Community High School and The Avenues Project, a visionary non-profit collective of artists, activists and community educators who support youth education outside of formal schooling. He has been teaching in Oakland, California for 15 years. His work in mathematics education articulates a framework for cultural studies and postcolonial studies in mathematics, specifically examining issues of popular culture, race and ethnic identity, and critical pedagogy. Currently, he co-teaches mathematics and the sociology of education at East Oakland Community High School.

Building a Social Justice Movement of NYC Public School Teachers

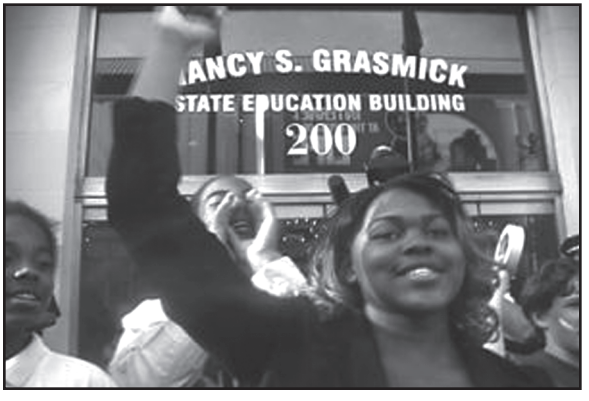
TeachersUnite.Net

Youth Film & Panel Discussion

Location:

El Puente
211 South 4th St
Brooklyn, NY 11211

Film: "Schooling Baltimore Street"



Created by young people involved in the Baltimore Algebra Project, this social commentary on the poorly funded inner-city public schools in Baltimore, exploded with a voiceover slam poem, pictures of the degraded public school buildings and the activist groups that are trying to do something about it. Interviewing and filming activists as they stormed city hall in an attempt to make politician Nancy Grasmick live up to her promises to better fund education, "Schooling Baltimore Street" proves that revolutionary young minds can and do have an impact on federal policy and on the issues that matter to them personally.

Directors:
Lendel Tellington and
Kyle Halle-Erby

Panel Discussion

Moderator:

Noelia Espinal (*Brooklyn, NY*)
Graduate of Wheaton College
Graduate of El Puente Academy for Peace and Justice

Panelists:

Norman Mendoza (*Oakland, CA*)
East Oakland Community High School

Rosanna Tejada (*Brooklyn, NY*)
City College of New York
Graduate of El Puente Academy for Peace and Justice

Veronica Gonzalez (*Chicago, IL*)
Greater Lawndale/Little Village School for Social Justice

Darnisha Hill (*Chicago, IL*)
Greater Lawndale/Little Village School for Social Justice

Charnell Cooper (*Baltimore, MD*)
New School University

Additional students TBA

Session 1 10:00 - 11:30

How Unfair Is It? Analyzing World Resource Distribution in Mathematically Rigorous Ways (HS 119)

In this workshop we will examine a series of developmentally appropriate and challenging mathematics lessons done with 2nd - 6th graders using data about world resource distribution. We will use these sample lessons to explore the larger question of how to design high-cognitive demand mathematics activities which help children build stronger conceptual mathematics skills while simultaneously helping them understand social injustice.

Ellen Davidson, Simmons College, Boston, MA
ellen.davidson@simmons.edu

Equity in Assessment: What Does it Mean to be Smart at Math? (Pratt 120)

The National Council for Teachers of Mathematics considers "equity" as a core principal for evaluating assessment programs in a classroom or department. In this workshop, participants will have an opportunity to discuss puzzles and strategies regarding the development of equitable assessment.

Ankur Dalal, Vanguard High School, New York, NY
ankurdalal@gmail.com

Running the Numbers on Preserving our Past (Pratt 520)

Students in the communities of Hatch, and Los Lunas, New Mexico will illustrate a collaborative project which combines student labor and the study of adobe preservation in New Mexico. Students from both schools have been studying and laboring in order to restore an adobe building in Hatch that was damaged by flooding. The construction and economic mathematics of this project will be outlined during this presentation.

Mary Darling, Century High School, Los Lunas, NM *m.darling@llschools.net*
Students: Victoria Sanchez, Rebekah McCall, Barbara Archuleta, Charles Harris, Robert Thornton, Christopher Barela, Jenna Lane

Powers to the People: Unit Projects for Algebra 2 and Pre-calculus (Pratt 422)

In this interactive session, participants will explore mathematics projects from Algebra 2 and Pre-calculus that integrate the curricular objectives of upper level mathematics with real-life social justice themes. With a focus on mathematical modeling, projects will include topics such as linear inequalities, exponential functions and logarithms, and regression analysis of a set of data. Participants will work through the mathematics of the projects, examine student work and brainstorm projects for other topics in the Algebra 2 /Pre-calculus curriculum.

Erica Litke, East Side Community HS, New York, NY
erical43@yahoo.com

Mohammed Aminyar, East Side Community HS, New York, NY
mohammed@eschs.org

You Gotta Problem - The Electoral College: Is it Fair? (Pratt 420)

Join the NYC Math Exchange Group (MEG), a teacher collaborative in Adult Basic Education, to explore the pedagogical stance of teaching through problem solving. The workshop will examine the Ugrabit Problem, a non-routine problem that focuses on the U.S Electoral College to pose mathematically the historical question of social justice: Is it fair? We will show video clips of our adult students engaged in the problem at the heart of the denial one person, one vote.

Charles Brover, The NYC Math Exchange Group (MEG) New York, NY
cbrover@yahoo.com

Denise Deagan, The NYC Math Exchange Group (MEG) New York, NY
djdeagan@yahoo.com

Solange Farina, The NYC Math Exchange Group (MEG) New York, NY
strega_del_sole@yahoo.com

Other Peoples' Children: Honoring Cultural Differences and Teaching with Integrity (Pratt 121)

This workshop is geared toward white teachers who work primarily with high school and middle school students of color. Trust is essential for learning. It is our belief that it is the teacher's responsibility to earn the trust of their students. In this workshop we will focus on the complexities of earning that trust given the power dynamics that comes from white privilege. We will explore these issues and work together to provide viable solutions.

Beth Wehner, El Puente Academy, Brooklyn, NY
bwehner@elpuente.us

Jennifer "J-Love" Calderon, We Got Issues, Brooklyn, NY
jlove1971@aol.com

Bridging the Gap: When the Ordinary Becomes Extraordinary (Pratt 421)

We will determine how we can bridge mathematics and a student's world through applications they come into contact with on a daily basis. We will conduct activities demonstrating the seamless flow of mathematical content and its natural occurrence in the world. You will see how we can make something ordinary look extraordinary through a mathematical lens. For example-

an airplane is not just a flying object, a rocket can launch in your classroom, and a scrapbook is not simply a collection of photographs.

Elisabeth Jaffe, Baruch College Campus High School, New York, NY
ejaffe@hotmail.com

Angela Esquibel, Baruch College Campus High School, New York, NY
aae2011@yahoo.com

Tupac Numerology, Ishango History, and Youth Multimedia Research (Pratt 618)

In this workshop, juniors from East Oakland Community High School will present: (1) A student-conducted School Accountability Report Card (SARC), whereby students develop statistical and multimedia research skills in SPSS, Final Cut Pro, and PowerPoint. (2) The Number Theory project in which students link culture to mathematics, through youth multimedia public lectures on trigonometry, numerology and number theory. (3) The East Oakland Index in which students create an index of quantitative indicators reflecting the state of society.

K. Wayne Yang; Students: Brittany Callum, Norman Mendoza, Maleesha Garner, Leonard Jones Jr.
East Oakland Community High School, Oakland, CA
kwayne@eastoakland.org

They Came Before Pythagoras: Non-European Contributions to Modern Mathematics (Pratt 617)

The session will discuss the absence of African and other indigenous cultures in today's math curriculums. Information from Crest of the Peacock: Non European Roots of Mathematics by George Gheverghese Joseph, Civilization or Barbarism by Cheikh Anta Diop and other literature will be used to highlight the many cultural achievements of pre-European mathematicians. Examples of world culture in textbooks and class materials will be provided to illustrate the importance of cultural inclusion and how this inclusion assists students in transcending the requirements of the educational standards.

Sugar Johnson, Brooklyn, NY
sugarjohnson@hotmail.com

Session 2 2:15 - 3:45

Learning about Social Justice Mathematics from High School Youth (Pratt 420)

Several Chicago public high school students will take session participants through a social justice mathematics project that the students did in their mathematics classes. The project is about racial profiling. Participants will learn about probability simulations and how they can use mathematics to "check up" on the police and verify if police are really stopping people randomly or if something else is going on. We will look at data from a real racial profiling suit filed in Illinois against the police.

Rico Gutstein; Students: Verónica González, Darnisha Hill, Rogelio Rivera, Ashley Blunt
Greater Lawndale/Little Village School for Social Justice, Chicago, IL
gutstein@uic.edu

Engaging Minds and Bodies through Math (Triangle Room)

North Brookfield stands in the center of Massachusetts, a poor, rural town nameless to the bustle of Boston. With limited financial capital, after-school educators here draw upon human resources and the creative spirit. Our workshop will offer a glimpse into the ways youth and adults at this Youth Center teach and learn about math and life through FitMath, drumming, and other student-centered activities. In the first half, students and staff will discuss their experiences of teaching real world math and how these experiences have shaped them. In the second half, participants will engage in hands-on exercises that blend math with physical fitness and music.

Alex Gurn, Marty Toomey, Jody Gauthier;
Students: Josh Toomey, Diana Luong, Tahsena Holmes,
North Brookfield Youth Center, North Brookfield, MA
mtoomey_nbyc@charter.net, alexgurn@yahoo.com

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RETHINKING MATHEMATICS
Teaching Social Justice by the Numbers
Edited by Eric Gutstein and Bob Peterson

"An amazing collection of more than 30 articles and lesson plans that infuse mathematics with a relevancy that will excite students. Use this as a supplement to your math class and you might no longer hear, 'Why do we have to learn this?'" – *Teaching Tolerance* magazine

ISBN 978-0-942961-54-6 • 180 pages • $16.95*

OPEN MINDS TO EQUALITY
A Sourcebook of Learning Activities to Affirm Diversity and Promote Equity
By Nancy Schniedewind and Ellen Davidson

An educator's source book of activities to help students understand and change inequalities based on race, gender, class, age, language, sexual orientation, physical/mental ability, and religion. Helps foster a classroom that is participatory, cooperative, and democratic. Essential resource for teachers and teacher educators.

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Centering on the Teaching of Mathematics to Urban Youth (Pratt 422)

Centering the Teaching of Mathematics on Urban Youth is a collaborative project between a university researcher and New York City teachers that aims to better understand what teaching mathematics for social justice can look like and how, despite the challenges, teachers learn to approach their teaching of mathematics in such a way. We will describe our collaborative work and individual teachers will share examples of how they have translated these ideas into their classroom practices. There will also be time for questions and discussion with session participants. Students from panel members' schools will also be in attendance.

Laurie Rubel, Brooklyn College, Brooklyn, NY
lrubel@brooklyn.cuny.edu

Amy Basile, Essex Street Academy, New York, NY
amy_basile@yahoo.com

Haiwen Chu, International HS @ Laguardia College, New York, NY
a*haiwen.chu@gmail.com*

Gretel Johnson, The School for Human Rights, Brooklyn, NY
greteljohnson@gmail.com

Using the Oceanic Mattang as a Tool for the Middle School Classroom (Pratt 520)

Mattangs are indigenous Micronesian tools for passing on centuries of observations on ocean wave behavior to young sailors. In this workshop, we will be building and using Mattangs while discussing best practices of broadening ethnomathematic discussions in the classroom. Attendees will leave the workshop with lesson plans aimed to crystallize student understanding of key points in standard curriculum while growing a deep respect for the ancient culture.

Wendy Furry, Presidio Hill School, San Francisco, CA
wendy_furry@presidiohillschool.org

Beyond Barbie: Moving from Scale to Social Justice (Pratt 519)

In this hands-on session we will focus on how mathematizing Barbie doll in terms of proportional reasoning opens up to a deep interrogation of some vexing social and cultural issues of our global world. Besides unpacking the relationship between self image, self worth and body image that result in eating disorders such as anorexia, bulimia, we will also look at the labor issues - particularly in terms sweatshops conditions - in toy manufacturing.

Swapna Mukhopadhyay, Portland State University, Portland, OR
swapna@pdx.edu

Making Mathematics Meaningful (Pratt 121)

Using real data (inequitable salaries by gender, consumption of resources by region, social consequences of World Bank directives to third world nations, and the like), participants will apply traditional mathematics skills such as graphing, proportional reasoning, and fractions while being encouraged to engage thoughtfully with the data itself. The mathematics skills are appropriate to the typical curriculum for 5th through 8th grade students.

Lynn Hughes, The Miquon School, Conshohocken, PA
lynnh@miquon.org

Connecting Variables: Using Statistical Correlation to Teach Linear Equations and Social Justice (Pratt 421)

This presentation contains information on an Algebra 2 project that uses extensive census data from Los Angeles to teach low-income urban students how to develop equations of lines by analyzing correlations between variables. The presentation shows how a math project can meaningfully address issues of social justice and fulfill a school's mission focus on community responsibility while still meeting California math standards and preparing students for standardized tests.

Chase Orton, Environmental Charter High School, Lawndale, CA
chase_orton@echsonline.org

Teaching Ethics in Mathematics Classes (Pratt 617)

To make it clear that the ability to make reasoned ethical decisions is an important part of expertise in our discipline, we must value it enough to actually devote some time to discussion of ethics in our classes, not merely rely on stand-alone courses that are not viewed by students as an integral component of their professional training. Through case studies, workshop participants will practice skills needed to facilitate classroom discussions, and then brainstorm ways to integrate discussions of ethics into their courses.

Bonnie Shulman, Bates College, Lewiston, ME
bshulman@bates.edu

Social Justice via Mathematics Education: A Review of the Research and Implications for Educators (Pratt 120)

A thorough overview of research in social justice and mathematics education will be presented in this interactive presentation. Inequities in academic achievement, retention, and representation of marginalized groups in advanced math as compared to their mainstream peers are reviewed in depth. The focus is on research that goes beyond acknowledging issues and actually highlights successful programs. After a presentation, groups will discuss: What are the implications of the research for our own teaching? How should math teachers be prepared to teach for social justice in urban settings?

Lidia Gonzalez, The Graduate Center, CUNY, New York, NY
euclid6675@aol.com

Session 3 4:00 - 5:30

Children's Impressions of Mathematics (Pratt 120)

Children are unsure about what it is they are actually learning in many elementary mathematics classrooms. As a way of understanding what children think about math and its importance in their lives, one professor and more than one hundred graduate students interviewed over two thousand students in the New York Metropolitan area about these matters. This session presents children's responses and teachers might want to hear what these diverse learners had to say.

Barbara Allen-Lyall, Lesley University, Cambridge, MA
barly@aol.com

Using Complex Instruction to Promote Access and Equity in Mathematics Education (Pratt 421)

Complex Instruction (CI) is a set of principles that address social and academic status differences in classrooms and "enables teachers to teach at a high intellectual level in academically, linguistically, racially, ethnically, as well as socially heterogeneous classrooms". We have spent several years working with students, pre-service teachers and K-12 classroom teachers on complex instruction. Our goal for this panel is to share our different experiences as well as the challenges we have faced as we have engaged in this work as a way of promoting and supporting conversations with more educators around issues of mathematical learning, access and equity.

Marcy Wood, Michigan State University, Lansing, MI
marcy@msu.edu

Joy Oslund, Michigan State University, Lansing, MI
oslund@msu.edu

Helen Featherstone, Michigan State University, Lansing, MI
feather1@msu.edu

Incorporating Social Justice in First-Year College MathCourses (Pratt 422)

In May 2006, about 25 people participated in a workshop on Math & Social Justice at Lafayette College. The aim was to begin a conversation about how to incorporate social justice issues into our college level mathematics courses. Several people from this workshop, including two of the organizers, will share stories of how they've implemented ideas generated from the workshop. There will be a range of SJ topics, including environmental justice and voting methods. The overall theme will be a discussion of how we've brought SJ issues into our first-year courses at the college level and how students have responded. Several classes have partnered with community organizations, so this session will be of interest not only to high-school and college teachers, but also to community leaders seeking advice on how to partner with colleges.

Catherine A. Roberts, Holy Cross College, Worcester, MA
croberts@holycross.edu

Rob Root, Lafayette College, Easton, PA
robroot@lafayette.edu

Stephen Kunec, Worcester State College, Worcester, MA
skunec@worcester.edu

Larry Lesser, Univ. Texas at El Paso, El Paso, TX,
lesser@utep.edu

Patricia Kenschaft, Bloomfield College, Montclair, NJ
kenschaft@pegasus.montclair.edu

Making Classroom Culture Explicit: Expectations and Equity in Math Classrooms (Pratt 121)

Many contemporary mathematics teachers utilize a variety of pedagogies that entail certain cultural assumptions about learning, student behavior and the role of the teacher. Often students do not share these assumptions, or are even unaware of them. As a result, they do not engage effectively in their classes, and they and their teachers become frustrated. We will examine several case studies to bring out some of these assumptions and the behavioral expectations that go with them, then we will work on identifying behavioral expectations in the context of specific math classes and ways to make those expectations explicit and to hold students accountable to those expectations.

Robert Wieman, New Design High School/ Dual Language High School for Asian Studies, New York, NY
gomathman@yahoo.com

What is Fair? - 11th Grade Students Create and Analyze Fair Games (Pratt 618)

One ongoing thread to Fannie Lou Hamer High School's ten-week probability unit is the question, "What is Fair?" In a culminating unit project, 11 th graders create their own fair games and analyze why they are in fact fair. We present the students' games, their explanations of the underlying mathematics, and their analyses of the fairness of their games. We also discuss how the project provided a window into the students' thinking (for both teachers and students) and fostered their taking ownership of their learning.

Kate Belin, Fannie Lou Hamer Freedom HS, Bronx, NY,
kbelin@verizon.net

Kelly Gadis, Bard College, Annandale-on-Hudson, NY,
gaddis@bard.edu

Teaching Math Through an Economic Justice Lens (Pratt 519)

This session will provide instructors with economic justice exercises that incorporate math instruction. For example, one exercise teaches about redlining and community reinvestment by showing students how to research the "loan to deposit" ratios of banks in their neighborhoods (ie how much money they bank branch has on deposit vs. how much it lends back out.) Other lessons illustrate the high cost of "rent-to-own" stores; the true cost immigrants pay to send money to family in their home countries; differences in cost between using banks vs. check cashers, and the collective comunity wealth drained by "rapid refund" loans each year. Examples of how math is used in GIS mapping and Census research will also be provided.

Sarah Ludwig, NEDAP, New York, NY
sarah@nedap.org

Chris Neely, NEDAP, New York, NY
chris@nedap.org

What is Out-of-School Mathematics? Analysis of the Research on Mathematics Employed in Non-School Settings and its Implications for the Classroom (Pratt 520)

This session will relate critical aspects of out-of-school mathematics and their implications for the classroom. A synthesis of findings, as well as research frameworks and methodologies, from international research will provide a coherent representation of mathematics use and learning in everyday settings. Moreover, out-of-school mathematics learning and use will be juxtaposed against school mathematics to consider ways to make school mathematics more meaningful for students. A critical implication of this analysis is the significance of incorporating students' everyday mathematical behavior into the classroom while also showing the usefulness of school mathematics in students' lives outside of school.

John Baker, University of Pennsylvania, Philadelphia, PA
bakerjy@dolphin.upenn.edu

The Flagway Game: A Youth Centered Game as a Catalyst for Math Literacy (Triangle Room)

There are many different ways to create a cultural context in which mathematics emerges naturally from students' experience. One method used by the Young People's Project (YPP) and the Algebra Project is to create mathematically rich games and experiences. The Flagway Game was developed by Bob Moses in 1995 and is used by YPP as a organizing and math literacy tool. Through the Flagway Games and league, The YPP seeks to create an opportunity for students throughout the nation to learn and celebrate learning math, in the same way that they learn and celebrate learning basketball. The league will initially target students in grades 3 - 6 and will radically change how and what students learn about their 1st 150 numbers.

Chad Milner, The Young People's Project (YPP), Cambridge, MA
cmilner@typp.org

Justice on the Job: Narratives from the First-Year Teacher (Pratt 420)

As part of a secondary math methods course at Pace University, first-year teachers from Teach for America and the New York City Teaching Fellows have designed, developed and implemented changes to their pedagogy that reflect their growing awareness of issues of social justice. Teachers will discuss their beliefs, struggles, and experiences teaching for social justice.

Kara Imm, Pace University, New York, NY, *karaimm@aol.com*

Student Teachers: Victoria Fernandez, Jesica Broadnax, Wes Carpenter

Statistics for Action (Pratt 617)

The Statistics for Action Planning Project seeks to increase the ways and extent to which adult members of three community action groups make use of mathematics when confronting issues connected to the well-being of their families and communities. The project uses the findings of an initial needs assessment to create and pilot math activities within the groups' meetings in order to increase members' ability to use data to understand and solve problems they have identified and are committed to solving. The project will share preliminary findings and engage conference participants in one or more activities designed in response to community groups' work.

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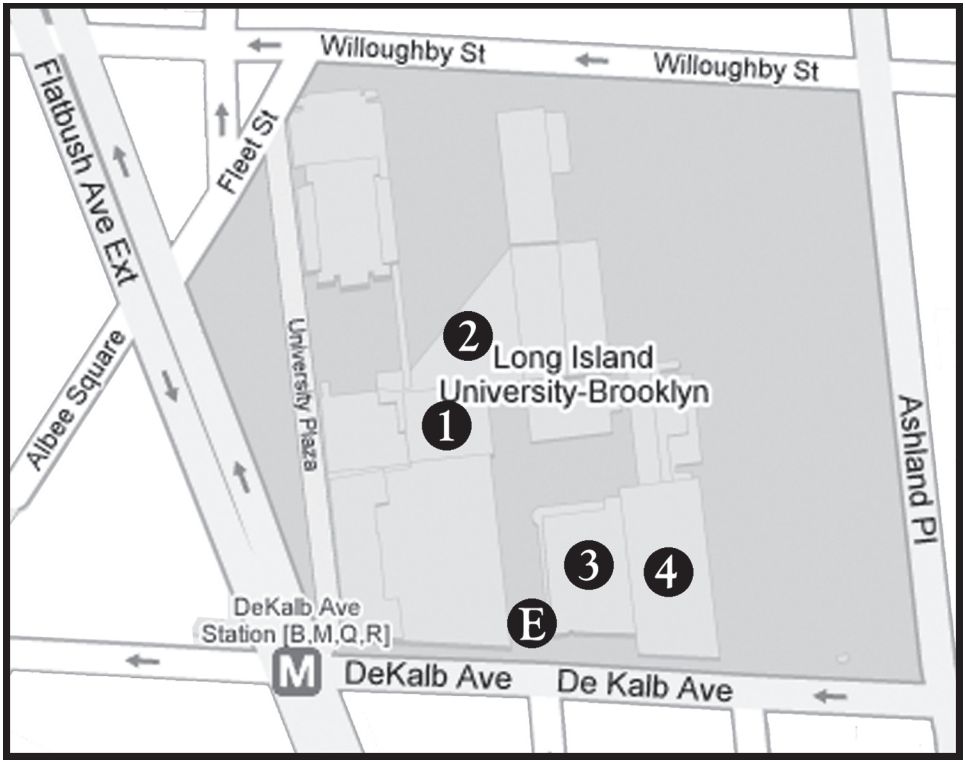

E Entrance Gate (on DeKalb Ave)

1 Pratt Building (workshops)

2 Triangle Room (workshops)

3 HS Building (check-in, speakers)

4 LIU Parking Lot*

** There is free parking for conference participants. Drive past the outdoor lot on DeKalb Ave and turn into the indoor lot on the right.*

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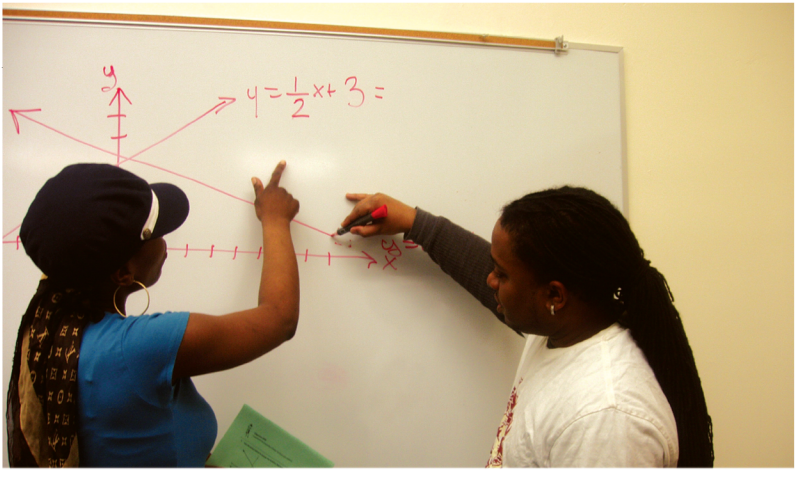
National Director of Teacher Education: Christine (Chris) Mikles
(888) 808-4276 email: mikles@cpm.org



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3. If you are an undergraduate at LIU majoring in Math... Add on a second major in Adolescence Urban Education (30 credits) to your first major. You will be eligible for teacher certification upon graduation!

Contact Professor Sara Salloum for more information

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

LONG ISLAND UNIVERSITY

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