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ACADEMIC BACKGROUND

2006-Present Assistant Professor, School of Leadership and Education Sciences, University of San Diego, San Diego, CA

Areas of focus: Mathematics Education, school equity and African American student identity and achievement, lesson study

2006 Ph.D., Education. University of California, Los Angeles

Dissertation: “Balancing the Equation: African American Student’s Opportunities to Learn Mathematics with Understanding in two Central-City Middle Schools”

Areas of focus: Access to rigorous mathematics for African American students, algebraic thinking in elementary and middle school students, student academic identity, cognitive and socio-cultural approaches to teaching mathematics, and school equity.

Committee members: Megan Franke- Chair, Jeannie Oakes, Frederick Erickson, Danny Martin and Jim Stigler (Defended March, 2006)

1999 M.A., Education (Language Learning and Policy). Stanford University

Areas of focus: linguistic and communicative norms of African American Vernacular English, educational implications of second dialect speakers and second language acquisition.

Committee members: John Baugh and Kenji Hakuta

1994 B.A., African and Afro-American Studies, Stanford University. Degree conferred with honors in Education.

Areas of focus: Reconstruction, early African American school development, social, cultural and educational implications of desegregation and urban school reform

PROFESSIONAL AND RESEARCH EXPERIENCE

LessonLab Research Institute, Santa Monica, CA,
Research Associate, December 2003- Summer, 2008
Implement experimental research study of middle school mathematics teachers in Los Angeles Unified School District. Study development of teacher content and pedagogical content knowledge and the impact of this knowledge on the teaching of rich mathematical problems in the classroom. Served as professional development facilitator for teachers participating in the study.

Rand Corporation, Santa Monica, CA
Educational Researcher, January, 2002- December 2005

As member of research team, developed an instrument for measuring mathematics and science instruction with a two-state research team. Responsibilities included conducting classroom observations, and scoring classroom artifact packages.

University of California, Los Angeles

Teaching Assistant, Mathematics Methods, Winter 2004

Prepared lessons and ran section of 30+ pre-service teachers. Topics included Cognitively Guided Instruction, curriculum development, and theories of teaching and learning mathematics.

University of California, Los Angeles

Director, Gear-Up Math and Science Summer Academic Program, Summer 2002 & 2003

Developed and directed middle school math & science program for 40 African American and Latino, low-income middle school students. Researched and developed curriculum focused on student mathematical understanding, conducted staff development and training, supported and monitored student progress.

University of California, Los Angeles

Graduate Student Researcher, Algebraic Thinking, Spring, 2002 - Spring, 2004

Conducted interviews with elementary school students on their algebraic thinking and reasoning.

Stanford University

Teaching Assistant, Introduction to African and Afro American Studies, Winter 1999

Assisted professor in teaching and administrative duties. Graded papers and examinations, served as a writing tutor, presented lectures and organized guest lectures.

Service Learning 2000, Palo Alto, CA

Project Evaluator, September 1997- June 1998

Conducted independent evaluation of youth organization providing community service and service learning opportunities to middle and high school students

Youth Community Service, Palo Alto, CA & **San Jose Discovery Museum**, San Jose, CA

Project Evaluator, Summer, 1998

Conducted independent evaluation of summer youth-programs aimed at providing middle school students with community service opportunities. Evaluation included interviews, observations and data analysis.

Cesar Chavez Academy, East Palo Alto, CA

Middle School Mathematics Teacher, 1995-1998

Full-time 8th grade math teacher in an urban middle school. Implemented interactive mathematics curriculum. Tailored instruction to the needs of English as a 2nd language students and African American students.

Menlo Oaks Middle School, East Palo, CA

Elementary Teacher, 1994-1995

Full-time 5th grade teacher in a self contained classroom. Implemented all areas of the curriculum including mathematics, English for second language students, science and social studies.

COURSES TAUGHT AT UNIVERSITY OF SAN DIEGO

Secondary Mathematics Methods (EDUC 332/532)

Fall 2008 & Fall 2009

Advanced Seminar in Math Content (EDUC 573)

Fall 2006, Summer 2007, Fall 2008 & Fall 2009

Research Methods (EDUC 500)	Spring 2007, Fall 2010
Action Research Capstone Seminar (EDUC 580)	Spring 2007, Spring 2008, Spring 2009, Fall 2009 & Spring 2010
Current Issues in Math, Science, and Technology (EDUC 570)	Spring 2009
Educational Leadership for Peace & Sustainability	Summer 2008
Student Movements (EDUC 379)	Fall 2010

GRANTS, FELLOWSHIPS AND AWARDS

Page, E., Spencer, J., Friedman, J. & Kua, J. (2009). Noyce Scholars Program, National Science Foundation, \$900,000. Funded August, 2009.

NSF REESE Collaborative Research Grant: "Integrating mathematics and equity – Toward a new model for the professional development of effective mathematics teachers" (\$45,000), submitted January 2007 (not funded)

American Educational Research Association (AERA) Dissertation Year Grant, \$15,000

Doctoral Student Fellow, Diversity in Mathematics Education Center for Learning and Teaching, University of California, Los Angeles. \$20,000/year Fall 2002 – Spring 2005

Eugene Cota Robles Fellowship for doctoral study, \$20,000/yr. and tuition reimbursement, Fall 2001- Spring 2005

PUBLICATIONS

Quezada, R., Lattimer, H. & Spencer, J. (In press). The role of teacher education in the training of teachers as practitioner researchers: Opportunities and obstacles appears in the recently published book, *Practitioner Research in Teacher Education: Theory and Best Practices* (Peter Lang International).

Spencer, J., Santagata, R. & Park, J. (2010). Keeping the Mathematics on the Table in Urban, Mathematics Professional Development: A Model that Integrates Dispositions towards Students. In M. Q. Foote (Ed.) *Mathematics teaching and learning in K-12: Equity and professional development*. New York: Palgrave.

Hubbard, L. & Spencer, J. (2009). Achieving equity through charter schools: More than tinkering at school structure. *Perspectives in Education*. 27(4), 395-405.

Spencer, J. (2009). Identity at the Crossroads: Understanding the Practices and Forces that Shape African American Success and Struggle in Mathematics. In D.B. Martin (Ed.) *Mathematics Teaching, Learning, and Liberation in African American Contexts*. New York: Routledge.

Ullucci, K. & Spencer, J. (2009). Unraveling the myths of accountability: A Case study of the California High School Exit Exam. *Urban Review*. 41(2), 161-173.

Spencer, J. (2008). *Study Guide to the MisEducation of the Negro*. Washington, DC: Association for the Study of African American Life and History.

Frederick Erickson with Rishi Bagrodia, Alison Cook-Sather, Manuel Espinoza, Susan Jurow, Jeffrey J. Shultz, and Joi Spencer. (2008). Students' Experience of School Curriculum: The Everyday Circumstances of Granting and Withholding Assent To Learn. In F. M. Connelly, M. F. He & JoAnn Phillion (Eds.) *Handbook of Curriculum and Instruction*. Sage Publications.

*Diversity in Mathematics Education (2007). Prioritizing inequity in mathematics education. In

F. Lester (Ed.) *Handbook of Research on Mathematics Teaching and Learning*. New York, NY: National Council of Teachers in Mathematics.

*one of five editors/writers on the chapter

Bannister, V., Bartell, T., Battey, D., Hand, V. & Spencer, J. (November, 2006). Inequity in mathematics education: Moving beyond individual-level explanations of differential mathematics achievement to account for race and power. In S. Alatorre, J.L. Cortina, M. Saiz, & A. Mendez (Eds.), *Proceedings of the twenty- eighth annual meeting of the North American Chapter of the International Group for the Psychology of Mathematics Education*. Merida, Yucatan, Mexico.

Borko, H., Stecher, B., Martinez, F., Kuffner, K., Barnes, D., Arnold, S., Spencer, J. & Creighton, L. (2006). *Using Classroom Artifacts to Measure Instructional Practice in Middle School Science: A Two-state field test*. National Center for Research on Evaluation, Standards, and Student Testing (CRESST) Center for the Study of Evaluation (CSE) Report 690.

Spencer, J. (2006). *Balancing the equation: African American students' opportunity to learn mathematics with understanding in two central city middle schools*. Doctoral dissertation, University of California, Los Angeles.

Spencer, J. (Spring, 2002). Radical Equations: The Civil Rights of Algebra Instruction. *Teaching to Change L.A.* Online Journal. Book Review.

MANUSCRIPTS IN REVIEW

Spencer, J. (Under Review). Considering the Implications of Teacher Disposition towards African American Students on their Mathematics Instructional Practices. *Journal for Research in Mathematics Education*.

NATIONAL & INTERNATIONAL CONFERENCE PRESENTATIONS (PEER REVIEWED)

Spencer, J. (2010). Professional Development as a Tool for Building Culturally Responsive Education: Lessons from a Middle School. Presented in Symposium at the Annual Meeting of the American Educational Research Association (AERA). Denver, CO. April, 2010.

Spencer, J. (2009). Impediments to Teaching Mathematics for Understanding. Paper presented at the California Mathematics Council- North Conference. Pacific Grove, CA. December, 2009.

Santagaga, R., Spencer, J. & Park, J. (2009). Teaching Mathematics for Understanding in Urban Settings: A Model that Integrates Knowledge, Skills, and Dispositions Toward Students. Presented in symposium at the Annual Meeting of the American Educational Research Association (AERA). San Diego, CA.

Spencer, J. (2009). Mathematics Tracking Policies and the Construction of Educational Opportunity and Achievement. Paper presented at the Annual Meeting of the American Educational Research Association (AERA). San Diego, CA.

Spencer, J. (November, 2008). Mathematics Discourse Practices in an Urban Charter School. Paper presented at the 2008 Meeting of the American Anthropological Association (AAA). San Francisco, CA.

Spencer, J. (September, 2008). Examining a Charter School Through a Socio-cultural Lens. Paper presented at the International Society for Cultural and Activity Research Conference (ISCAR). San Diego, CA.

Spencer, J. (April, 2008). Social Justice in the Mathematics Classroom: Powerful Lessons for Today's Realities. Paper presented at the 2008 Radical Mathematics Conference. New York, NY.

Spencer, J. (March, 2008). Foregrounding Issues of Equity and Diversity in Mathematics Education Research: Implications for Research Methods and Teacher Development. Professional Development Course taught at the 2008 annual meeting of the American Educational Research Association (AERA). New York, NY.

Spencer, J. (March, 2008). Identity at the Crossroads: African American Mathematics Students Discuss Who They Are and Who They Hope to Be. Paper presented in symposium at the 2008 annual meeting of the American Educational Research Association (AERA). New York, NY.

Spencer, J., Ullucci, K. & Goode, J. (February, 2008). Talking Race with White Pre-Service Teachers: Ideas for the University Classroom. Association of Teacher Educators (ATE). New Orleans, LA.

Spencer, J. (June, 2007). The Elevator Problem: Urban School Teachers' Impediments to Teaching a Rich Mathematics Lesson. Poster presented at the Institute of Education Sciences Research Conference (IES). Washington D.C.

Bannister, V., Bartell, T.G., Battey, D., Hand, V., & Spencer, J. (April, 2007). Critiquing the stories, roles, and structures in mathematics education that privilege whiteness. Paper presented at the 2007 annual meeting of the American Educational Research Association (AERA), Chicago, IL.

Bannister Pitts, V., Bartell, T., Battey, D., Hand, V. & Spencer, J. (April, 2006). The Untapped Potential of Mathematics Education Research to Address Equity. Paper presented at the 2006 annual research pre-session of the Annual Meeting of the National Council of Teachers of Mathematics. St. Louis, MO.

Goode, J., Spencer, J. and Ullucci, K. (January, 2006). Making Meaning of Identity: A View through Three Lenses. Paper presented at the 75th Annual Hawaii International Conference on Education. Honolulu, Hawaii.

INVITED TALKS

Spencer, J. (2010). Mathematics Education Researchers: Taking a Stand to Keep our Seat in the School Room. Keynote address. Radical Mathematics Conference. Long Island University. Brooklyn, NY.

Spencer, J. (2009). Implications from Research on Instructional Practice in Today's Mathematics Classrooms. National Center for Women and Information Technology (NCWIT). Menlo Park, CA.

Spencer, J. (March, 2009). Teaching Mathematics for Understanding in Urban Settings: A Model that Integrates Knowledge, Skills, and Dispositions towards Students. Center for Research in Math and Science Education (CRMSE). San Diego State University.

Spencer, J. (November, 2008). Making Mathematics Real through Woodson's MisEducation of the Negro. Invited presentation at the 2008 International Conference of the National Association for Multicultural Education (NAME). New Orleans, LA.

Spencer, J. (July, 2008). The MisEducation of the Negro: A Study Guide. Invited presentation at the 1st Annual Summer Institute of the National Association for Multicultural Education, Philadelphia, PA.

Spencer, J. (March, 2008). African American Mathematics Identity in Central City Schools. Invited Talk. Urban Learning, Teaching and Research Special Interest Group of the American Educational Research Association. Presented at the 2008 annual meeting of the American Educational Research Association. New York, NY.

Spencer, J. (2007). California Mathematics Council South Annual Conference. November 2-3, 2007. *Framing failure in The Mathematics Classroom: A 2-School Case Study Of African-American Math Achievement.*

Spencer, J. (2006). National Council for Black Studies, Annual Conference. March 14- 17, 2006. San Diego, CA.
Math: Breaking Through Barriers Towards Excellence.

Spencer, J. (2006). San Bernardino County Institute on Educating African American Students. March, 2006.
Improving African American Student Academic and Mathematics Identity.

References Available Upon Request