

Teomara Rutherford

Curriculum Vitae

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Education

- 2009-present PhD program in Education, University of California, Irvine
Learning, Cognition and Development specialization
- 2003 Juris Doctor., Boston University School of Law, *cum laude*
J.D. certification paper: *Shining a Light on Gifted Education: Including Gifted under the IDEA* (unpublished).
- 1998-99 University of Texas at Austin, one year psychology coursework and research
- 1997 Bachelor of Science, Elementary Education, Florida International University

Honors

- 2011-14 National Science Foundation Graduate Research Fellowship
- 2011 UC Evaluation Center Fellow
- 2011 AERA Motivation S.I.G. travel award
- 2011 AERA Division E Graduate Student Seminar
- 2009 University of California, Irvine Graduate Dean Recruitment Fellowship
- 2001-03 *Boston University Law Review*; articles editor 2002-03
- 2001 G. Joseph Tauro Distinguished Scholar, Top ten percent of first year class
- 2000-03 Boston University School of Law Merit Scholarship
- 1995-97 Florida International University Faculty Scholar

Publications

Rutherford, T., Farkas, G., Burchinal, M., Graham, J., Kibrick, M., Richland, L.E.,...Martinez, M.E. (under review). Main and Differential Effects of a Computer-Assisted Math Intervention.

Rutherford, T., Lee, D.S., & Martinez, M.E. (2011). Gender, spatial ability, and high-stakes testing. In L. Carlson, C. Hölscher, & T. Shipley (Eds.), *Proceedings of the 33rd Annual Conference of the Cognitive Science Society* (pp. 3237-3242). Austin, TX: Cognitive Science Society.

Rutherford, T., Kibrick, M., Burchinal, M., Richland, L.E., Conley, A.M., Osborne, K.,...Martinez, M. E. (2010). *Spatial temporal mathematics at scale: an innovative and fully developed paradigm to boost math achievement among all learners*. Available from ERIC database. (ED510612)

Tran, N.A., Schneider, S., Duran, L., Conley, A.M., Richland, L.E., Burchinal, M., **Rutherford, T.**, Kibrick, M., Osborne, K., Coulson, A., Antenore, F., Daniels, A., & Martinez, M.E. (in press). The effects of mathematics instruction using spatial temporal cognition on teacher efficacy and instructional practices. *Computers in Human Behavior*.

Presentations

Rutherford, T., Schenke, K., Conley, A.M., & Martinez, M.E. (2012, August) *The Association Between Math Test Scores, Math Expectancy, and Cognitive Abilities*. Paper submitted to the annual meeting of the American Psychological Association, Orlando, FL

Forrester, L. D., **Rutherford, T.**, & Martinez, M.E. (2012, March). *Using the Right Words for Reasoning: Relationships Between Specific Word use and Inductive Reasoning*. Paper accepted to the biennial meeting of the Society for Research on Adolescence, Vancouver, British Columbia, Canada.

Rutherford, T., Burchinal, M., Farkas, G., Graham, J.D., Kibrick, M., Long, J.J.,...Martinez, M.E. (2012, April). *Main and differential effects of a computer-assisted math intervention*. Paper accepted to the annual meeting of the American Educational Research Association, Vancouver, British Columbia, Canada.

Sheppard, A, Albarran, A. S., Safavian, N., **Rutherford, T.**, Conley, A. M. (2012, April). *Social Network Analysis of Communication Patterns within Professional Learning Communities*. Paper accepted to the annual meeting of the American Educational Research Association, Vancouver, British Columbia, Canada.

Rutherford, T. (December, 2011). *Illustration of Program Evaluation: ST Math Randomized Field Trial*. Paper presented the annual meeting of the California Educational Research Association, Anaheim, CA.

Rutherford, T., Hinga, B., Chang, A., Conley, A.M., & Martinez, M. E. (2011, August). *The effect of ST Math software on standardized test scores via improvement in mathematics expectancy*. Paper presented at the annual meeting of the American Psychological Association, Washington, D.C.

Rutherford, T., Lee, D. S., & Martinez, M. E. (2011, July). *Gender, spatial ability & high-stakes testing*. Poster presented at the annual meeting of the Cognitive Science Society, Boston, MA.

Long, J. J., **Rutherford, T.**, Richland, L. E., Graham, J. D., Antenore, F., Coulson, A., & Martinez, M.E. (2011,May) *Fidelity of implementation in ST Math*. Poster presented at the Science of Student Success Conference of the Learning & the Brain Society, Chicago, IL.

Lee, D.S., **Rutherford, T.**, Hinga, B., Graham, J. D., & Martinez, M. (2011,May) *Brain Boost: A model for direct cognitive enhancement*. Poster presented at the Science of Student Success Conference of the Learning & the Brain Society, Chicago, IL.

Rutherford, T., Graham, J.D., Kibrick, M., Burchinal, M., Lee, D.S., Long, J.J.,...Martinez, M. E. (2011, April). *Change in standardized test scores in response to an individualized math intervention*. Paper presented at the annual meeting of the American Educational Research Association, New Orleans, Louisiana.

Rutherford, T., Conley, A.M., Karabenick, S.A. (2011, April). *Achievement goal orientations and preference for competitive careers*. Poster presented at the annual meeting of the American Educational Research Association, New Orleans, Louisiana.

Sheppard, A, Safavian, N., **Rutherford, T.**, Albarran, A. S., Conley, A. M. (2011, April). *A social network analysis of teachers' professional learning communities*. Paper presented at the annual meeting of the American Educational Research Association, New Orleans, Louisiana.

Rutherford, T., Conley, A.M., Karabenick, S.A. (2011, March). *Motivationally Blessed? Motivation and achievement among gifted and propensity score matched comparison group*. Poster presented at the annual meeting of the Society for Research in Child Development, Montreal, Canada.

Rutherford, T., Kibrick, M., Burchinal, M., Richland, L.E., Conley, A.M., Osborne, K.,...Martinez, M. E. (2010, May). *Spatial temporal mathematics at scale: An innovative and fully developed paradigm to boost math achievement among all learners*. Paper presented at the annual meeting of the American Educational Research Association, Denver CO.

Rutherford, T. (2010, June). *Emotional well-being and matches between child and parent educational aspirations and expectations*. Poster presented at the PSID CDS III New Directions Workshop, Ann Arbor, Michigan.

Kibrick, M., **Rutherford, T.**, Burchinal, M., Richland, L. E., Conley, A.M., Long, J. J.,...Martinez, M. E. (2010, June). *The effects of ST Math on standardized test scores: A randomized field study*. Presented at the Fifth Annual IES Research Conference, Washington, DC.

Local Talks

Rutherford, T. (2011, January). *ST Math study overview and findings to date*. Presented at the Annual Principal's Kickoff Meeting, Irvine, CA.

Non-Academic Publications

Rutherford, T. (2009, October). Copyright the wrongs: Legal concepts every photographer should know. *Design Aglow*, 1(9). Available from <http://designaglow.com>

Rutherford, T., & Warneck, S. (2002) chapters on Offender-Victim Contact and Non-Offending Guardians for the Children's Law and Policy Initiative, *Bench Book on Children and the Courts; Improving Court Responses to Child Victims of Intra-familial Violence and Sexual Abuse*.

Research Experience

- 2010-present Project Researcher, Brain Boost, University of California, Irvine
Pilot development and implementation of after-school program to increase cognitive ability.
- 2009-present Graduate Student Researcher, Professor Michael Martinez, University of California, Irvine
IES-funded Spatial Temporal Mathematics at Scale project testing the effects of an innovative math software in a randomized field experiment.
- 2009-present Project Researcher, California Motivation Project
- Summer 2010 Graduate Student Researcher, Asst. Professor AnneMarie Conley, University of California, Irvine
NSF-funded project on motivation using data from a two-year survey of middle and high school students in their math classes.
- 2001-02 Research Assistant, Asst. Professor Oona Hathaway, Boston University School of Law
Research into and ranking of torture practices for 166 countries over 15 years as work towards the understanding of the efficacy of human rights treaties.
- 2001 Research Assistant, Professor Maureen O'Rourke, Boston University School of Law
Law and Technology, Bankruptcy Law and Internet Issues.

Teaching Experience

- 2011-present Research Supervisor (5 quarters), Education Department, University of California, Irvine
Mentor and supervise 10-35 undergraduate research assistants in directed research course.
- Summers 2010 & 2011 Teaching Assistant, Education Department, University of California, Irvine
Intro to Education undergraduate course.
- 2007-09 Photography Workshop Instructor and Presentation Speaker, in conjunction with the Worcester Photography Center, Worcester, MA
Taught photography lighting workshops and gave presentations on legal and technical issues in photography.
- 2002 Instructor, Research and Writing Workshop, in association with Boston University School of Law, Boston, MA
Designed and taught 10 week research and writing class to international Banking L.L.M. students at Boston University.
- 2001 Teaching Assistant, International Law L.L.M. Writing Workshop, Boston University School of Law, Boston, MA
Graded papers and held meetings with students to discuss their writing.
- 2000 Teacher, Pull-Out Class, Corporate Academy North, Miami, FL
Taught small groups of students high school math and language skills in preparation for the Florida High School Competency Test. Advised students on the college and trade school selection and application process.
- 1999 Teacher, Computers and Art, Academy of Austin Charter School, Austin, TX
Developed curriculum and taught computer and art classes for a new charter school.
- 1997 Student Teacher, Fifth Grade Alternative Education, Snapper Creek Elementary, Miami, FL

Guest Lectures

"Theories of Knowledge"

Guest lecture in course EDUC 173, Cognition & Learning in Educational Settings
University of California, Irvine, CA. September, 15, 2011.

“Motivation: Achievement Goals, Expectancy-Value, and Mindsets”
 Guest lecture in course EDUC 173, Cognition & Learning in Educational Settings
 University of California, Irvine, CA. February, 10, 2011.

“Spatial Temporal Mathematics at Scale”,
 Guest lecture in course EDUC 616, Foundations of Spatial Literacy,
 University of Redlands, Redlands, CA. November 4, 2010.

Professional Experience

2011-2012 Assessment Consultant, American Bar Association, Council on Legal Education Opportunity
 Designed and administered assessments to evaluate program based on motivation and self-regulated learning constructs. Assisted with creation of follow-up intervention.

2006 Educational Consultant, Seven Hills Charter School, Worcester, MA
 Advised administrators and assisted in preparation for the school's state Coordinated Program Review on issues of special education, English language learners and civil rights.

2004-06 Public School Liaison/Education Specialist, Massachusetts Department of Education, Malden, MA
 Led and participated on teams of staff from up to six DOE units in compliance monitoring through the Coordinated Program Review System. Interviewed administrators, teachers, specialists and staff and reviewed student records and other data to rate school district compliance on areas of regulation. Interpreted education regulations and analyzed school practices during monitoring and in responding to parent complaints and information requests regarding special education and civil rights.

2003-04 Judicial Law Clerk, Massachusetts Appeals Court, Boston, MA
 Advised Appellate judge on issues relevant to the current docket. Performed research and wrote memoranda of law and draft opinions.

1999 Legislative Intern, Texas House of Representatives, Austin, TX
 Researched and advised on issues of constituent interest. Supervised other intern work on constituent mail program.

Professional Service

2012 AERA, Studying & Self-Regulated Learning Sig Webmaster

2012 Student Representative, UC Irvine, Department of Education Math/Science Search Committee

2010-present Student Representative, UC Irvine, Department of Education Steering Committee

2010-2011 Secretary, UC Irvine, Social Emotional Development Lab

2010-present Communications Committee, National Association of Gifted Children, Research & Evaluation

2010 Graduate Student Assistant to the Chair, 2011 Society for Research in Child Development
 Conference Review Panel 15: Education: School Context, Extracurricular, Enrichment, Physical Education, Remediation, Success, and Educational Media.

2009-present Division C Graduate Student Campus Liaison, American Educational Research Association

Community Activity

2005-present Photography by Teya charitable participation
 Through my photography company (<http://teyaphoto.com>) I donated sessions to local children's causes and worked with the Central Massachusetts Girl Scouts by leading workshops for teen girls to raise awareness about the lack of realism in magazine photography.

2007-09 Founder and Director, Portraits for Progress, Ltd. at <http://portraitsforprogress.org>
 Founded non-profit corporation to raise money for breast cancer-related charities through portrait events. Events were recognized by the local media and raised thousands of dollars for breast cancer research.

2001-03 Volunteer Coach of the Boston University Synchronized Swimming Team

Professional Affiliations

UCI Center for Research on Cognition and Learning (CRCL)

American Educational Research Association
American Psychological Association: Division 15 & APAGS
National Association for Gifted Children
Society for Research in Child Development

Research & Statistics Skills

Experimental design, large-scale education field research, field administration of cognitive & achievement tests, survey and assessment construction
Training and experience with functional Magnetic Resonance Imaging (fMRI)
OLS and logistic regressions, Hierarchical Linear Modeling, Structural Equation Modeling, Propensity Score Matching, Econometrics Methods
Statistics & Experiment Software: SPSS, Stata, AMOS, E-Prime, mplus