

Teomara Rutherford
Curriculum Vitae
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EDUCATION

- Ph.D.** Learning, Cognition, and Development, University of California, Irvine, 2014
- M.A.** Learning, Cognition, and Development, University of California, Irvine, 2012
- J.D.** Boston University School of Law, *cum laude*, 2003
G. Joseph Tauro Distinguished Scholar, *Boston University Law Review* article editor
- Matriculated, Non-Degree Program, University of Texas at Austin, 1998-1999
30 credits in upper-division psychology; neuroscience coursework and research
- B.S.** Elementary Education: Computers in the Classroom, Florida International University, 1997

ACADEMIC APPOINTMENT

Assistant Professor of Education, Learning Sciences. University of Delaware College of Education and Human Development, School of Education. *July, 2019-Present.*

Assistant Professor of Educational Psychology; Affiliated faculty in Learning Design and Technology. North Carolina State University College of Education, Department of Teacher Education and Learning Sciences. *January, 2015-June, 2019.*

AWARDED RESEARCH FUNDING

- 2019-2024** National Science Foundation, CAREER, *The Measurement and Influence of Mathematics Motivation in a Digital Context*, PI (\$978,023, Grant No. 1845584).
- 2019-2022** National Science Foundation, ITEST, *eSTEM Project: Enhancing STEM Identity Through eMentoring Experiences*, Co-PI (PI: Cameron Denson, \$1,198,504, Grant No. 1850024).
- 2018-2021** National Science Foundation, Strategies: *Innovation Challenges for Middle School Mathematics in a Digital Learning System: Student Participation and Impact on Achievement, Affect, and STEM Career Interest*, Consultant (PI: Jere Confrey, \$1,199,964, Grant No. 1759167).
- 2017** American Educational Research Association Research Conference Award. *Use of Innovative Technology to Build Engaging Motivational Interventions for Diverse Learners*, Co-PI (Co-PIs: Serena Shim & Sandra Graham, \$35,000).
- 2016-2018(9)** National Science Foundation, *Evaluation for Actionable Change: A Data-Driven Approach*, PI (\$799,837, Grant No. 1544273). No cost extension for 2018-2019.
- 2015-2020** National Science Foundation, *Investigating Virtual Learning Environments*, Co-PI (PI: Mark Warschauer, \$2,500,000, Grant No. 1535300).
- 2015-2016** North Carolina State University Faculty Research and Professional Development Grant, *Understanding the Ecology of Educational Change through the Creation of a Multi-Faceted Dataset*, PI (\$4,000).
- 2014-15** edX High School Initiative, Co-I (PI: Jeneen Graham, \$45,000)
- 2011-14** National Science Foundation Graduate Research Fellowship. STEM Education, *Training Elementary Math Students to Effectively Monitor Learning* (\$121,500, DGE-0808392).
- 2012** University of California, Irvine, Newkirk Center for Science & Society. Graduate Student Research Fellowship, *Design and Evaluation of Brain Boost*. (\$1,000).

HONORS AND AWARDS

2019	AERA-SRCD Early Career Fellowship in Middle Childhood Education and Development
2018	PBS Data Consortium Fellow
2018	NCSU Outstanding Graduate Faculty Mentor Award Nominee
2017, 2018	AERA Journal Publications Committee Outstanding Reviewer Award
2017	College of Education Outstanding Teacher Award Nominee
2015	APA Division 15 Pintrich Dissertation Prize
2015	AERA Division C New Faculty Mentoring Program
2014	UCI School of Education Michael E. Martinez Prize
2013	University of California, Irvine Public Impact Distinguished Fellow
2013	AERA Division C Doctoral Student Seminar
2012	APA Division 15 Doctoral Student Seminar
2011	UC Educational Evaluation Center Fellow
2011	AERA Motivation Special Interest Group travel award
2011	AERA Division E Graduate Student Seminar
2009	University of California, Irvine Graduate Dean Recruitment Fellowship

PUBLISHED & ACCEPTED MANUSCRIPTS

*indicates mentored graduate student

- Karamarkovich, S. M.* & **Rutherford, T.** (In press) Fraction errors in a digital mathematics environment: Latent class and latent transition analysis. *Journal of Numerical Cognition*.
- Kunze, A.* & **Rutherford, T.** (2018) Blood from a stone: Where teachers report finding time for Computer-Based Instruction. *Computers & Education*, 127, 165-177. doi: 10.1016/j.compedu.2018.08.022
- Rutherford, T.**, Buschkuehl, M., Jaeggi, S. M., & Farkas, G. (2018) Links between achievement, executive functions, and Self-Regulated Learning. *Journal of Applied Cognitive Psychology*, 32(6). doi: 10.1002/acp.3462
- Rutherford, T.**, Karamarkovich, S. M.*, & Lee, D. S. (2018) Is the spatial/math connection unique? Associations between mental rotation and elementary mathematics and English achievement. *Learning & Individual Differences*, 62, 180-199. doi: 10.1016/j.lindif.2018.01.014
- Callaghan, M.*, Long, J. J., vanEs, E. A., Reich, S., & **Rutherford, T.** (2018) How teachers integrate a math computer game: Professional development use, teaching practices, and effects on student achievement. *Journal of Computer Assisted Learning*. doi: 10.1111/jcal.12209
- Rutherford, T.** (2017) Within and between person associations of calibration and achievement. *Contemporary Educational Psychology*, 49, 226–237. doi: 10.1016/j.cedpsych.2017.03.001
- Rutherford, T.** (2017) The measurement of calibration in real contexts. *Learning and Instruction*, 47, 33-42. doi: 10.1016/j.learninstruc.2016.10.006
- Rutherford, T.**, Long, J. J., & Farkas, G. (2017) Teacher value for professional development, self-efficacy, and student outcomes within a digital mathematics intervention. *Contemporary Educational Psychology*, 51, 22-36. doi: 10.1016/j.cedpsych.2017.05.005
- Kelly, D.* & **Rutherford, T.** (2017). Khan Academy as complementary instruction: A controlled study of a computer-based mathematics intervention. *The International Review of Research in Open and Distributed Learning*, 18(4), 71-77. doi: 10.19173/irrodl.v18i4.2984
- Schenke, K., **Rutherford, T.**, Lam, A. C., & Bailey, D. (2016) Construct confounding among predictors of mathematics achievement. *AERA Open*, 2(2). doi: 10.1177/2332858416648930

- Simzar, R. M., Martinez, M., **Rutherford, T.**, Domina, T., & Conley, A. M. (2015). Raising the stakes: How students' motivation for mathematics associates with high-and low-stakes test achievement. *Learning and Individual Differences, 39*, 49-63. doi: 10.1016/j.lindif.2015.03.002
- Rutherford, T.** (2015). Emotional well-being and discrepancies between child and parent educational expectations and aspirations in middle and high school. *International Journal of Adolescence and Youth, 20*(1), 69-85. doi:10.1080/02673843.2013.767742
- Rutherford, T.**, Farkas, G., Duncan, G., Burchinal, M., Graham, J., Kibrick, M.,...Martinez, M. E. (2014) A randomized trial of an elementary school mathematics software intervention: Spatial-Temporal (ST) Math. *Journal of Research on Educational Effectiveness, 7*(4), 358-383. doi: 10.1080/19345747.2013.856978
- Schenke, K., **Rutherford, T.**, & Farkas, G. (2014) Alignment of game design features and state mathematics standards: Do results reflect intentions? *Computers & Education, 76*, 215-224. doi: 10.1016/j.compedu.2014.03.019
- Tran, N. A., Schneider, S., Duran, L., Conley, A. M., Richland, L., Burchinal, M., **Rutherford, T.**, Kibrick, M., Osborne, K., Coulson, A., Antenore, F., Daniels, A., & Martinez, M. E. (2012). The effects of mathematics instruction using spatial temporal cognition on teacher efficacy and instructional practices. *Computers in Human Behavior, 28*(2), 340-349.

PUBLISHED & ACCEPTED PROCEEDINGS

*indicates mentored graduate student

- Peddycord-Liu, Z. *, Catete, V. *, Vandenberg, J. *, Barnes, T., Lynch, C., & **Rutherford, T.** (2019). A Field Study of Teachers Using a Curriculum-integrated Digital Game. In *Proceedings of the 2018 CHI Conference on Human Factors in Computing Systems*. Glasgow, UK.
- Peddycord-Liu, Z. *, Harred, R. *, Karamarkovich, S. M. *, Barnes, T., Lynch, C., & **Rutherford, T.** (2018). Learning curve analysis in a large-scale, drill-and-practice serious math game: Where is learning supported? In *Proceedings of the 19th International Conference on Artificial Intelligence in Education*. London, UK.
--Nominated for Best Graduate Student Paper Award
- Peddycord-Liu, Z. *, Cody, C. *, Kessler, S. M. *, Barnes, T., Lynch, C., & **Rutherford, T.** (2017). Using serious game analytics to inform digital curricular sequencing: What math objective should students play next? In *Proceedings of the ACM SIGCHI Annual Symposium on Computer-Human Interaction in Play (CHI PLAY)*. Amsterdam, Netherlands.
- Liu, Z. *, Cody, C. *, Barnes, T., Lynch, C., & **Rutherford, T.** (2017). The antecedents of and associations with elective replay in an educational game: Is replay worth it? In *Proceedings of the 10th International Conference on Educational Data Mining*. Wuhan, China.
- 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.

BOOK CHAPTERS

*indicates mentored graduate student

- Rutherford, T.**, Spencer, D. *, Azevedo, R., & Davidson, A. (2018). Applying Self-Regulated Learning to the dynamic STEM classroom. In M. K. DiBenedetto (Ed.), *Connecting self-regulated learning and performance with instruction across high school content areas*. Dordrecht, The Netherlands: Springer.

PEER-REVIEWED PRESENTATIONS

**indicates mentored undergraduate student, *indicates mentored graduate student

- Eagle, J. L.* & **Rutherford, T.** (2019, August). *Antecedents and Correlates of Teacher Self-Efficacy for a Digital Tool*. Presented at the Annual Meeting of the American Psychological Association, Chicago, IL.
- Rutherford, T.**, Shah, M., & Confrey, J. (2019, August). *Testing Motivational Pathways within a Learning Trajectories-Based Classroom Assessment System*. Presented at the Annual Meeting of the American Psychological Association, Chicago, IL.
- Rutherford, T.**, Liu, A., Logan, W.* , Karamarkovich, S. M.* , Wagemaker, M*. (2019, August). *"I Chose Math Because...": Cognitive Interviews of a Motivation Measure*. Presented at the Annual Meeting of the American Psychological Association, Chicago, IL.
- Karamarkovoch, S. M.* & **Rutherford, T.** (2019, August). *The Valence of Hope: When and How Elementary Students Describe Experiencing Hopeful Emotions*. Presented at the Annual Meeting of the American Psychological Association, Chicago, IL.
- Vandenberg, J.*, Kunze, A.* , & **Rutherford, T.** (2019, April). *Are grades based on skills or behaviors? Predictors of teachers' grading in math and ELA*. Presented at the Annual Meeting of the American Educational Research Association, Toronto, ON.
- McPartlan, P.* , **Rutherford, T.**, & Rodriguez, F. (2019, April). *Modality motivation: Selection effects and motivational differences in students who choose to take courses online*. Presented at the Annual Meeting of the American Educational Research Association, Toronto, ON.
- Karamarkovich, K. M.* & **Rutherford, T.** (2019, April). *Profiling change: Methods for comparing patterns in mathematics expectancies and values across time*. Presented at the Annual Meeting of the American Educational Research Association, Toronto, ON.
- Rutherford, T.**, Kunze, A.* , Karamarkovich, S. M.* , Vandenberg, J.* , Logan, W.* , & Liu, A. (2019, April). *Tangible and collaborative coding in the elementary classroom: A pilot of CodeSnaps*. Presented at the Annual Meeting of the American Educational Research Association, Toronto, ON.
- Kunze, A.* & **Rutherford, T.** (2019, April). *Undergraduate students' discipline-specific perceptions of learning practices: A mixed-methods approach*. Presented at the Annual Meeting of the American Educational Research Association, Toronto, ON.
- Walkowiak, T. A., Hunter, D.* , & **Rutherford, T.** (2018, November). *The relationship between novice teachers' self-efficacy and students' opportunities for discourse*. Presented at the 40th Annual Meeting of the North American Chapter of the Psychology for Mathematics Education (PME-NA), Greenville, SC.
- Vandenberg, J.* & **Rutherford, T.** (2018, August). *Reasoning as a moderator between thinking and studying*. Presented at the Annual Meeting of the American Psychological Association, San Francisco, California.
- Chittum, J. & **Rutherford, T.** (2018, August). *Expectancy-value perceptions of math and English language arts: Exploring person-centered profiles*. Presented at the Annual Meeting of the American Psychological Association, San Francisco, California.
- Karamarkovich, S. M.* & **Rutherford, T.** (2018, August). *Differences in profiles of motivation for mathematics across grades and districts*. Presented at the Annual Meeting of the American Psychological Association, San Francisco, California.

- Kunze, A.* & **Rutherford, T.** (2018, July). *The role of epistemological beliefs and gender for STEM majors*. Presented at the 2018 Gender and STEM Network Conference, Eugene, OR.
- Kunze, A.* & **Rutherford, T.** (2018, April). *Blood from a stone: How teachers report finding time for Computer-Based Instruction*. Poster presented at the American Educational Research Association annual meeting, New York, NY.
- McPartlan, P.* & **Rutherford, T.** (2018, April). *Are our measures offline? Critiquing measures of motivation in online courses*. Poster presented at the American Educational Research Association annual meeting, New York, NY.
- Kessler, S. M.* & **Rutherford, T.** (2017, October). *Fraction errors in a digital mathematics environment: Latent class and transition analysis*. Presented at the annual meeting of the Cognitive Development Society, Portland, OR.
- Kunze, A.* & **Rutherford, T.** (2017, August). *Listening to their views: Student perceptions of instruction in online and face-to-face environments*. Presented at the annual meeting of the American Psychological Association, Washington, D.C.
- McPartlan, P.,* **Rutherford, T.**, Rodriguez, F., & Schaffer, J. (2017, August). *Modality motivation: Assessing motivational differences in online and face-to-face students*. Presented at the annual meeting of the American Psychological Association, Washington, D.C.
--awarded Graduate Student Poster Award
- Kessler, S. M.,* Cao, W.,* & **Rutherford, T.** (2017, August). *Predictors and components of fraction performance in a mathematics digital environment*. Presented at the annual meeting of the American Psychological Association, Washington, D.C.
--nominated for Graduate Student Poster Award
- Black, A.,** Kessler, S. M.,* Whiteside, M.,** & **Rutherford, T.** (2017, August). *Figuring out the rules: How children problem solve in digital games*. Presented at the annual meeting of the American Psychological Association, Washington, D.C.
- Vandenberg, J.* & **Rutherford, T.** (2017, August). *Teacher feedback as support to student use of self-regulated learning strategies in science*. Presented at the annual meeting of the American Psychological Association, Washington, D.C.
--nominated for Graduate Student Poster Award
- Rivas, M. J.,* **Rutherford, T.**, Rodriguez, F., & Warschauer, M. (2017, April). *Comparing student motivation and performance between a flipped and traditional college calculus class*. Presented at the annual meeting of the American Educational Research Association, San Antonio, TX.
- Vandenberg, J.,* Kessler, S. M.,* & **Rutherford, T.** (2017, April). *Student narratives as expressions of motivational constructs*. Presented at the annual meeting of the American Educational Research Association, San Antonio, TX.
- Filson, N.,* Roberts, C.,* & **Rutherford, T.** (2016, November). *Supporting literacy across the curriculum: Understanding the valuing of literacy instruction, implementation of literacy standards, and epistemological beliefs of high school teachers*. Presented at the annual Convention of the National Council of Teachers of English, Atlanta, GA.
- Kessler, S. M.,* **Rutherford, T.**, & Lee, D. S. (2016, August). *Are associations between spatial ability and math unique?* Presented at the annual meeting of the American Psychological Association, Denver, CO.
- Umarji, O.,* McPartlan, P.,* & **Rutherford, T.** (2016, April). *How the fish pond feeds the STEM pool: Middle school class composition associates with self-concept and choice of STEM major*. Presented at the annual meeting of the Society for Research on Adolescence, Baltimore, MD.

- Rutherford, T.**, Schenke, K., Lam, A. C., & Kessler, S. M.* (2016, April). *Monitoring accuracy as antecedent to help seeking*. Presented at the annual meeting of the American Educational Research Association, Washington, D.C.
- Rutherford, T.** (2015, April). *Within person exploration of calibration and achievement in a digital mathematics learning environment*. Presented at the annual meeting of the American Educational Research Association, Chicago, IL.
- Rutherford, T.**, Buschkuehl, M., Jaeggi, S. M., & Farkas, G. (2015, April). *A look at executive control in the lab, in the classroom, and on real-world achievement*. Presented at the annual meeting of the American Educational Research Association, Chicago, IL.
- Simzar, R. M., Vandell, D. L., **Rutherford, T.**, O'Cadiz, P., & Hall, V. (2015, April) *How the Power of Discovery: STEM2 out-of-school time initiative influenced staff efficacy and student outcomes*. Presented at the annual meeting of the American Educational Research Association, Chicago, IL.
- Schenke, K., **Rutherford, T.**, Lam, A. C., & Lee, D. S. (2015, March). *Self-concept as a determinant of achievement in elementary mathematics: Reciprocal relations across three years*. Presented at the biennial meeting of the Society for Research in Child Development, Philadelphia, PA.
- Zhamharyan, H.** & **Rutherford, T.** (2014, November). *Less effective executive functioning after being sleep deprived*. Presented at the annual meeting of the Psychonomic Society, Long Beach, CA.
- Simzar, R. M., Martinez, M., Sanabria, T., **Rutherford, T.**, Domina, T., & Conley, A. M. (2014, August). *Student motivation for mathematics and high-stakes versus low-stakes test achievement*. Presented at the annual meeting of the American Psychological Association, Washington, D.C.
- Schenke, K., **Rutherford, T.** & Farkas, G. (2014, April). *Linking educational technology to standardized assessments: Game content and features*. Presented at the annual meeting of the American Educational Research Association, Philadelphia, PA.
- Chang, A., **Rutherford, T.**, & Farkas, G. (2014, April). *I can do it!: Expectancy as a mediator of the ST Math effect on math achievement*. Presented at the annual meeting of the American Educational Research Association, Philadelphia, PA.
- Rutherford, T.** & Farkas, G. (2014, April). *Evaluation of ST Math treatment effects for special populations and by length of implementation*. Presented at the annual meeting of the American Educational Research Association, Philadelphia, PA.
- Long, J. J., **Rutherford, T.**, van Es, B., & Farkas, G. (2014, April). *Understanding the relationship between ST Math teacher professional development and its impact on students*. Presented at the annual meeting of the American Educational Research Association, Philadelphia, PA.
- Johnson, L. G.**, **Rutherford, T.**, & Lee, D. S. (2013, May). *Association between working memory training games and assessments*. Presented at the 25th annual meeting of the Association for Psychological Science, Washington, D.C.
- Rutherford, T.**, Lee, D. S., Schenke, K., Chang, A., Tran, C., Young, N. S., Conley, A. M.,...Martinez, M. E. (2013, April). *Brain Boost: Randomized trial of a program to enhance intelligence in elementary and middle school*. Presented at the annual meeting of the American Educational Research Association, San Francisco, CA.
- Rutherford, T.**, Schenke, K., Conley, A. M., & Martinez, M. E. (2012, August). *The association between math test scores, math expectancy, and cognitive abilities*. Presented at the annual meeting of the American Psychological Association, Orlando, FL
- Schenke, K., Chang, A., **Rutherford, T.**, Lee, D. S., Tran, C., Hinga, B., & Martinez, M. E. (2012, August). *Development, implementation, and evaluation of Brain Boost: A model for modifying*

- direct cognitive ability in an engaging after school environment.* Presented at 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.* Presented at 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.* Presented at the annual meeting of the American Educational Research Association, Vancouver, British Columbia, Canada.
- Sheppard, A, Safavian, N., **Rutherford, T.**, Albarran, A. S., & Conley, A. M. (2012, April). *Social network analysis of communication patterns within professional learning communities.* Presented at the annual meeting of the American Educational Research Association, Vancouver, British Columbia, Canada.
- Rutherford, T.** (2011, December). *Illustration of program evaluation: ST Math randomized field trial.* Presented at 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.* Presented at the annual meeting of the American Psychological Association, Washington, D.C.
- 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.* 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.* 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.* 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.* 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.* 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.* Presented at the biennial meeting of the Society for Research in Child Development, Montreal, Canada.
- Rutherford, T.** (2010, June). *Emotional well-being and matches between child and parent educational aspirations and expectations.* 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.

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*. Presented at the annual meeting of the American Educational Research Association, Denver CO.

INVITED TALKS

Rutherford, T. & Karamarkovich, S. M. (2018, August). *Progress in Partnership: Results to Date*. Presented to MIND Research Institute, Irvine, CA.

Rutherford, T. (2017, September). *Research on and with ST Math: From RCT to Actionable Evaluation*. College of Education Research Café series, NC State.

Wiseman, A. & **Rutherford, T.** (2017, August). *Literacy and Motivation Practices to Aid Learning*. Invited professional development lecture presented to prison educators at Butner Correctional Facility, Butner, NC.

Rutherford, T. (2016, August). *Calibration of Confidence Judgments in Elementary Mathematics: Measurement, Development, and Improvement*. Pintrich Award Invited Talk, the annual meeting of the American Psychological Association, Denver, CO.

Rutherford, T. (2015, October). *Conscientiousness and the Montessori Class and Home*. Presented to the parents and teachers of Heartwood Montessori School, Cary, NC.

Rutherford, T. (2014, December). *Calibration of Confidence Judgments within ST Math: Implications for Design and Student Use*. Presented to Mind Research Institute, Irvine, CA.

Rutherford, T. (2011, January). *ST Math Study Overview and Findings to Date*. Presented at the Annual Principal's Kickoff Meeting for the IES-funded Evaluation of ST Math, Irvine, CA.

OTHER PRESENTATIONS

Rutherford, T. (2018, February). *Prompting student success: Supporting graduate student interaction with academic articles through a digital tool*. Poster presented to the Annual Teaching & Learning Symposium at North Carolina State University, Raleigh, NC.

Isbell, E. & **Rutherford, T.** (2018, February). *Associations between attentional fluctuations and mathematics performance in elementary school*. Poster presented at NC Cognition Conference, Chapel Hill, NC.

Vandenberg, J.* & **Rutherford, T.** (2018, February). *No good reason: Logic, cognition, and self-regulated learning behaviors in undergraduates*. Poster presented at NC Cognition Conference, Chapel Hill, NC.

Kunze, A.* & **Rutherford, T.** (2018, February). *Investigating the relationship between student perceptions of the nature of knowledge and symbolic racism*. Poster presented at NC Cognition Conference, Chapel Hill, NC.

Karamarkovich, S. M.* & **Rutherford, T.** (2018, February). *Cognition and prior knowledge: Influences on fraction achievement*. Poster presented at NC Cognition Conference, Chapel Hill, NC.

Wagemaker, M.* & **Rutherford, T.** (2018, February). *Hearts and flowers: Is there a multilingual EF advantage in school district classified students*. Poster presented at NC Cognition Conference, Chapel Hill, NC.

Kunze, A.* & **Rutherford, T.**, (2017, October). *Where does the time go: Trading traditional instruction time for Computer-Based Instruction*. Poster presented at the annual Bridging the Gap Conference, Raleigh, NC.

Kessler, S. M.* & **Rutherford, T.** (2017, October). *Why are fractions so hard? An analysis of error and growth*. Poster presented at the annual Bridging the Gap conference, Raleigh, NC.

PUBLICATIONS IN OTHER AREAS

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

Hahn (Rutherford), T., & Warneck, S. (2002) Offender-victim contact. In *Bench Book on Children and the Courts; Improving Court Responses to Child Victims of Intra-familial Violence and Sexual Abuse*. Boston, MA: Children's Law and Policy Initiative.

Hahn (Rutherford), T., & Warneck, S. (2002) Non-offending guardians. In *Bench Book on Children and the Courts; Improving Court Responses to Child Victims of Intra-familial Violence and Sexual Abuse*. Boston, MA: Children's Law and Policy Initiative.

UNIVERSITY TEACHING EXPERIENCE

EDUC 438/ Learning Technologies Across the Curriculum (Undergrad/Grad), University of Delaware
EDUC 638 Fall, 2019

EDP 723 Motivation in Education (Doctoral), North Carolina State University, Spring 2019

ECI 709 Educational Psychology Interventions for Cognitive and Non-Cognitive Skills (Doctoral Seminar), North Carolina State University, 2015.

ED 700 Introduction to Research Design in Education (Doctoral), North Carolina State University, 2015, 2016, 2017, 2018.

ED 711 Applied Quantitative Methods in Education II (Doctoral), North Carolina State University, 2017, 2018.

EDP 575 Multicultural Lifespan Development (Master's, taught online), North Carolina State University. 2015, 2016, 2017, 2018.

EDUC 265 Lab Instructor for Dr. Greg Duncan, Applied Regression Analysis for Education & Social Research (Doctoral), School of Education, University of California, Irvine. 2012, 2013.

Research and Writing Workshop, in association with Boston University School of Law (Graduate). 2002.

Mentoring postdoctoral scholar in teaching:

ECI 709 Learning Sciences (Doctoral), North Carolina State University, Upcoming Spring 2018

Teaching Recognition: Spring 2017, Thank a Teacher Award.

MENTORING

Postdoctoral Scholars Supervised: Allison Liu, PhD Cognitive Psychology

PhD Dissertation Committees Chaired: Marcus Green (co-chair), Sarah Karamarkovich

PhD Dissertation Committees as Member: Dan Spencer, Sonya Harris, Fulya Eyupoglu, Donna Hawkins, Danielle Boulden, Nicolette Filson, Jennifer Houchins, Whitney McCoy, Zhongxiu Peddycord-Liu (Computer Science), Peter McPartlan (UCI)

MS Thesis Committees Chaired: Sarah Kessler, Andrea Kunze, Waverly Logan, Nicolette Filson (co-chair)

Other Graduate Research Mentorship: Daniel Kelly, Charlotte Roberts, Osman Umarji, Mariela Rivas, Qiujie Li, Jessica Eagle

Undergraduate Research Mentorship at NC State: Amber Black, Maiya Whiteside (Honors Thesis), Arianna Johnson, DeShaun Fontenot, Holly Starenchak, Waverly Logan, Amie Phane, Chantelle Linthicum, Ryan Edmonds, Megan Armstrong, Madison Young, Luke Gostling, Krystal Peru, Celena Greer, Yoselin Wences, Iyanna Wallace

Awards of Mentored Students: Sarah Kessler (NSF GRFP Honorable Mention, 2016; GRFP Award, 2017); Peter McPartlan (NSF GRFP Honorable Mention, 2015); Nicolette Filson and Charlotte Roberts (1st Place, Education Category, NC State 2017 Graduate Research Symposium); Andrea Kunze (NSF GRFP Honorable Mention, 2017)

Job Placements of Mentored Graduate Students: Marcus Green (PhD, 2016), Elizabeth City State University; Zhongxiu Peddycord-Liu (PhD 2018), Data Scientist at SAS

K-12 TEACHING EXPERIENCE

Teacher, Pull-Out Class, Corporate Academy North, Miami, FL. 2000
Mathematics and English instruction to prepare high school students for high school competency test.

Teacher, Computers and Art, Academy of Austin Charter School, Austin, TX. 1999
Designed and taught computer and art classes to elementary students in new charter school.

Substitute Teacher, Dade County Public Schools, Miami, FL. 1998
Short and long-term substitute teaching in high school.

Student Teacher, Fifth Grade Alternative Education, Snapper Creek Elem., Miami, FL. 1997

Adaptive Swimming Instructor, Neva King Cooper Special Education Center for students with severe intellectual disabilities (ages 3-22), Dade County Public Schools, Homestead, FL. 1995-1996.

PROFESSIONAL EXPERIENCE

Evaluation Consultant, Plasma Games, 2018-2019
Consulted on evaluation design, conducted analysis, wrote report.

Statistical Analysis & Survey Consultant, University of California, Irvine, Medical School, 2012-13
Analyzed and reported on results from an experimental medical education program.

Assessment Consultant, American Bar Association, Council on Legal Education Opportunity, 2011-12
Designed and administered assessments to evaluate program based on motivation and self-regulated learning constructs. Assisted with creation of follow-up intervention.

Educational Consultant, Seven Hills Charter School, Worcester, MA, 2006
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.

Public School Liaison/Education Specialist, Massachusetts Dept. of Education, Malden, MA, 2004-06
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.

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

NATIONAL AND INTERNATIONAL SERVICE

Ad Hoc Journal Review

Journal of Educational Psychology, 2015, 2016, 2017, 2018, 2019
Educational Researcher, 2019
Computers & Education, 2019
Social Psychological and Personality Science, 2019
Educational Psychology, 2018
Learning and Individual Differences, 2012, 2018
Journal of Experimental Education, 2017
Learning and Instruction, 2017
Metacognition and Learning, 2017, 2018
Child Development, 2016, 2017
Contemporary Educational Psychology, 2016, 2018
Journal of Research in Childhood Education, 2016, 2018
Journal of Applied School Psychology, 2016, 2018
AERA Open, 2015, 2017, 2018, 2019; Editorial Board Member 2017-2021
Journal of Research on Educational Effectiveness, 2013, 2014, 2015
Early Education and Development, 2014
Sociological Perspectives, 2014, 2015
American Educational Research Journal, 2013, 2014
Journal of Advanced Academics, 2013
American Journal of Evaluation, 2012

Grant Review

National Science Foundation EHR, 2019
National Science Foundation CAREER, 2015 (ad hoc)
National Science Foundation Graduate Research Fellowship Program, panel reviewer, 2016

Conference Proposal Review (conference years noted)

American Educational Research Association Annual Meeting, Division C, 2013-2019, Studying & Self-Regulated Learning Special Interest Group, 2013-2020, Motivation Special Interest Group, 2016-2020; American Psychological Association Annual Meeting, Division 15, 2013, 2015-2019; Society for Research in Child Development, 2019, ACM CHI Conference on Human Factors in Computing Systems 2019, Society for Research on Educational Effectiveness 2019

Section Program Chair

AERA Division C Section 3b, Technology-Based Environments, 2018-2019
AERA Division C Section 2b, Learning & Motivation in Social & Cultural Contexts, 2017-2018

APA Division 15 Grad Student Seminar Co-Chair, 2017-2019

APA Division 15 Early Career Committee Member, 2016-2019

Webmaster & Graduate Student Committee Member, American Educational Research Association, Studying & Self-Regulated Learning Special Interest Group, 2012-2014, webmaster: 2012-2016

Division C Graduate Student Campus Liaison, American Educational Research Association, 2009-2014

UNIVERSITY SERVICE

Quantitative Methods Committee, North Carolina State University College of Education, 2017-2019

Data Science Initiative Advisory Council, North Carolina State University, 2016-2019

Faculty Presenter for TELS Graduate Student Association, North Carolina State University, 2017 (poster presentations), 2018 (academic job market)

Search Committee for Developmental Methodology Asst. Prof., North Carolina State University, 2018

Search Committee for the College of Education Dean, North Carolina State University, 2016

Learning & Cognition Faculty Search Committee Student Representative, University of California, Irvine, School of Education, 2012

Math/Science Faculty Search Committee Student Representative, University of California, Irvine, School of Education, 2012

PhD Steering Committee Student Representative, University of California, Irvine, School of Education, 2010-2012

COMMUNITY SERVICE

Junior Troop Co-Leader, Girl Scouts of NC Coastal Pines, Cary, NC. 2018-2019

Performer and Volunteer, Musical Theatre Village, Community Theater, Irvine, CA. 2011-2014

School Site Council Member, University Park Elementary, Irvine, CA. 2011-2013

Founder and Director, Portraits for Progress, Ltd. at <http://portraitsforprogress.org>, 2007-2009
Ran an annual portrait charity event for breast cancer research. Raised and donated over \$1,000 each year.

Volunteer Coach of the Boston University Synchronized Swimming Team, Boston University, Boston, MA. 2001-2003

PROFESSIONAL AFFILIATIONS

American Educational Research Association:

Divisions C, E, and H; Motivation SIG, Studying and Self-Regulated Learning SIG

American Psychological Association: Division 15

Society for Research in Child Development

Cognitive Development Society

RESEARCH AND STATISTICS SKILLS

Experimental design, large-scale education field research, field administration of cognitive & achievement tests, survey and assessment construction, analysis of large datasets, learning analytics

Training and experience with functional Magnetic Resonance Imaging (fMRI)

OLS and logistic regressions, Multilevel Modeling, Structural Equation Modeling, Propensity Score Matching, Econometric Techniques, Social Network Analysis

Software: SPSS, Stata, AMOS, E-Prime, Mplus, Atlas.ti, UCInet