**AMBER SIMPSON**

Indiana University

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Bloomington, IN 47404

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**EDUCATION**

2015 Doctorate of Philosophy: Curriculum & Instruction, Mathematics Education

Clemson University, Clemson, SC

Dissertation Title: *Kaleidoscopic view of voices shaping female and male adolescents’ dynamic mathematics identity within single-sex and coeducational environments*

2009 Educational Specialist: Educational Administration & Supervision

Lincoln Memorial University, Harrogate, TN

2007 Masters of Education: Curriculum & Instruction

Lincoln Memorial University, Harrogate, TN

2005 Bachelors of Science: Mathematics, Secondary Mathematics

East Tennessee State University, Johnson City, TN

**SELECTED PROFESSIONAL EXPERIENCES**

August 2015 - Research Associate

Present Making STEM Pathways

Funding Agency: GOOGLE

Indiana University; Bloomington, IN

June 2015 - Thinking about Thinking: Investigating the ways in which Secondary

Present Mathematics Pre-service Teachers understand Students’ Mathematical Thinking

Clemson University; Clemson, SC

June 2014 - We Do Math: The Influence of a Summer Mathematics Camp on Girls'

Present Participation

Clemson University; Clemson, SC

August 2013 - Graduate Research Assistant

July 2014 Professional Development in Algebra Progress Monitoring Project in conjunction with personnel from Clemson University and Iowa State University

Funding Agency: Funded by Institute of Education Sciences

Award # R324A090295

Clemson University; Clemson, SC.

August 2013 – Graduate Research Assistant

May 2014 Building Environments for Early Mathematics Success (Project BEEMS)

Funding Agency: PNC Bank of Greenville, SC

Clemson University; Clemson, SC

February 2013 - Secondary Mathematics Preservice Teachers Professional Noticing

May 2014 of Students' Written Work

Clemson University; Clemson, SC

January 2013 - Elementary Teachers’ Strategies for using Standards-Based Mathematics

Present Curriculum Materials in collaboration with Dr. Corey Drake at Michigan State University

Funding Agency: National Science Foundation

CAREER Grant Award #0643497

Clemson University; Clemson, SC

August 2012 – A Phenomenological Study of Middle Grade Female and Male Students’

August 2013 Single-Sex Mathematical Experiences

Clemson University; Clemson, SC

August 2011 - Graduate Research Assistant

May 2015 Examining Preservice and Inservice Teacher Beliefs and Content Knowledge Relating to Mathematics Pedagogy: A Longitudinal Study

Clemson University; Clemson SC

August 2011 - Graduate Research Assistant

May 2015 Impact of Single-Sex Public Educational Environments on Mathematics and Science Classroom Environment, Student Academic Performance, and Student Self-Concept

Funding Agency: National Science Foundation

Clemson University; Clemson, SC

August 2006 Mathematics Teacher, Grades 6 – 12

July 2011 Hamblen County School System

Morristown Hamblen High School East; Morristown, TN

**PUBLICATIONS**

**Refereed Journal Articles**

**Simpson, A.**, Che, M., & Bridges, W. (In Press). Girls’ and boys’ academic self-concept in science in single-sex and coeducational classes. *International Journal of Science and Mathematics Education.*

**Simpson, A.,** & Che, M. (In Press). A phenomenological study of middle grade female and male students’ single-sex mathematical experiences. *Research in Middle Level Education Online.*

**Simpson, A.,** Monroe, J., & Raquet, J.(2015). Math by the month: Board game frenzy. *Teaching Children Mathematics, 22*(2), 74-75*.*

Hall, A., **Simpson, A**., Guo, Y., & Wang, S. (2015). Examining the effects of preschool writing instruction on emergent literacy skills: A systematic review of the literature. *Literacy Research and Instruction, 54*(2), 115-134*.* doi: 10.1080/19388071.2014.991883

**Simpson, A.** (2015). Math by the month: Working with wheels!. *Teaching Children Mathematics.*

Linder, S. M., Rembert, K., **Simpson, A.**, & Ramey, D. (2015). A mixed methods investigation of early childhood professional development for providers and recipients in the United States. *Professional Development in Education.* Advanced online publication. doi: 10.1080/19415257.2014.978483

**Simpson, A.**, Mokalled, S., Ellenburg, L., & Che, S. M. (2015). A tool for rethinking teachers’ questioning. *Mathematics Teaching in the Middle School, 20*(5), 294-302.

**Simpson, A.**, & Cole, M. W. (2015). More than words: A literature review of language of mathematics research. *Educational Review, 67*(3), 369-384*.* doi: 10.1080/00131911.2014.971714

Haltiwanger, L., & **Simpson, A.** (2014). Challenging students’ conceptions of proportional reasoning. *MathMate, 36*(3), 26-36.

**Simpson, A.**, & Linder, S. M. (2014). An examination of mathematics professional development opportunities in early childhood settings. *Early Childhood Education Journal,* 42(5), 335-342. doi: 10.1007/s10643-013-0612-7

**Simpson, A.**, Blethen, J., & Mokalled, S. (2014). Mathematical modeling of a function. *MathMate, 36*(2), 10-16.

**Simpson, A.**, & Short, A. (2014). Math by the Month: Described by numbers. *Teaching Children Mathematics, 21*(2), 82-83.

Haltiwanger, L., & **Simpson, A.** (2013). Beyond the write answer: Mathematical connections. *Mathematics Teaching in the Middle School, 18*(8), 492-498.

**Refereed Book Chapter**

Tyminski, A. M., Land, T. J., Drake, C., Zambak, V. S., & **Simpson, A**. (2014). Pre-service elementary mathematics teachers’ emerging ability to write problems to build on children’s mathematics. In J. Lo, K. R. Leatham, & L. R. Van Zoest (Eds.), *Research Trends in Mathematics Teacher Education*. New York, NY: Springer.

**Refereed Conference Proceedings**

**Simpson, A.**, Kombe, D., Che. M., & Bridges, W. (2014). *Adolescent students’ perceptions of mathematics and science as a gendered domain.* Proceedings of the 38th annual meeting of the International Group for the Psychology of Mathematics Education and the 36th annual conference of the North American Chapter of the Psychology of Mathematics Education. Vancouver, Canada.

Haltiwanger, L., & **Simpson, A.** (2014). *Secondary mathematics preservice teachers’ noticing of students’ mathematical thinking*. Proceedings of the 41st annual meeting of the Research Council on Mathematics Learning. San Antonio, TX.

Linder, S. M., & **Simpson, A.** (2013). *Student teaching experiences and early childhood mathematics pedagogical beliefs: Identifying barriers to success.* Proceedings of the 35th annual meeting of the North American Chapter of the International Group for the Psychology of Mathematics Education. Chicago, IL: University of Illinois at Chicago.

**Simpson, A.**, & Linder, S. (2013). *Investigating providers and recipients perceptions of early childhood professional development in mathematics.* Proceedings of the 35th annual meeting of the North American Chapter of the International Group for the Psychology of Mathematics Education. Chicago, IL: University of Illinois at Chicago.

**Other Non-Refereed Publications**

Foegen, A., Stecker, P. M., Olson, J., Genareo, V., **Simpson, A.**, & Lyons, R. (2014). *Professional development for algebra progress monitoring: Final grant Report.* Institute of Education Sciences, Award # R324A090295

**Simpson, A.** (2013). Games in the classroom. *Mathematics Teacher, 106*(6), 404.

Linder, S. M., Rembert, K., **Simpson, A.**, & Ramey, M. D. (2012). *Assessing the landscape of early childhood professional development in South Carolina: Final grant report*. South Carolina Early Childhood Advisory Council: Columbia, SC.

**SCHOLARLY PRESENTATIONS**

**Refereed National/International Conference Papers, Posters, and Presentations**

Tyminski, A. M., Dede, E., **Simpson, A.**, Land, T. J., & Drake, C. (2015). *Prospective elementary teachers’ professional noticing of children’s fraction strategies*. Brief Research Report to be presented at the annual meeting of the Psychology of Mathematics Education - North American Chapter. East Lansing, MI.

**Simpson, A.,** & Che, S. (2015). *Use of I-poems to uncover adolescents’ dynamic mathematics identity within single-sex and coeducational classes.* Research report for the annual meeting of the International Group for the Psychology of Mathematics Education, Hobart, Australia.

Che, S., & **Simpson, A.** (2015). *Discursive acts of power: A critical analysis of single-sex and coeducational mathematics classes.* Short oral for the annual meeting of the International Group for the Psychology of Mathematics Education, Hobart, Australia.

**Simpson, A.,** Che, S., & Bridges, W. (2015). *Students’ perceptions of science in single-sex and coeducational science classes in the United States.* Paper accepted for the annual meeting of the National Association for Research in Science Teaching. Chicago, IL.

**Simpson, A.**, & Haltiwanger, L. (2015). *Exploring secondary preservice mathematics teachers’ noticing of students’ mathematical thinking.* Paper accepted for the annual meeting of the American Educational Research Association. Chicago, IL.

**Simpson, A**. & Linder, S. M. (2015). *The indirect effect of children’s gender on early childhood educators’ mathematical talk.* Paper accepted for the annual meeting of the American Educational Research Association. Chicago, IL.

Stecker, P. M., **Simpson, A.**, Lyons, R., Genareo, V., & Foegen, A. (2015). *Teacher use and satisfaction with online professional development for algebra progress monitoring.* Poster presented at the annual meeting of the Pacific Coast Research Conference. Coronado, CA.

Haltiwanger, H., & **Simpson, A**. (2015). *Developing secondary mathematics preservice teachers abilities to interpret and respond to students’ mathematical thinking.* Paper presented at the annual meeting of the Association of Mathematics Teacher Educators. Orlando, FL.

Linder, S. M., & **Simpson, A**. (2015). *Connecting methods courses and practicum experiences in early childhood mathematics.* Paper presented at the annual meeting of the Association of Mathematics Teacher Educators. Orlando, FL.

**Simpson, A.**, Kombe, D., Che, M., & Bridges, W. (2014). *Adolescent students' perceptions of mathematics and science as a gendered domain.* Poster presented at the annual meeting of the International Group for the Psychology of Mathematics Education, Vancouver, Canada.

**Simpson, A.**, & Che, M. (2014). *A phenomenological study of middle grade female and male students’ single-sex mathematical experiences*. Paper presented at the annual meeting of the American Educational Research Association. Philadelphia, PA.

Linder, S. M., & **Simpson, A.** (2014). *Is it enough? Examining opportunities for early childhood educators to engage in mathematics professional development*. Paper presented at the annual meeting of the American Educational Research Association. Philadelphia, PA.

Linder, S. M., Rembert, K., **Simpson, A.**, & Ramey, D. (2014). *Recipient perceptions of early childhood professional development*. Paper presented at the annual meeting of the American Educational Research Association. Philadelphia, PA.

Kombe, D., **Simpson, A.**, & Che, M. (2014). *Single-sex classes and middle grades students’ mathematics self concept.* Poster presented at the annual meeting of the National Council of Teachers of Mathematics Research Conference. New Orleans, LA.

Haltiwanger, L., & **Simpson, A.** (2014). *Examining preservice teachers professional noticing*. Paper presented at the annual meeting of the Research Council on Mathematics Learning. San Antonio, TX.

Linder, S. M., Rembert, K., **Simpson, A.**, & Ramey, D. (2013). *Investigating facilitator perceptions of quality and impact of early childhood professional development*. Paper presented at the annual meeting of the National Association of Early Childhood Teacher Educators. Washington D.C.

Linder, S. M., & **Simpson, A.** (2013*). Student teaching experiences and early childhood mathematics pedagogical beliefs: Identifying barriers to success.* Paper presented at the annual meeting of Psychology of Mathematics Education - North American Chapter. Chicago, IL.

**Simpson, A.**, & Linder, S. M. (2013). *Investigating providers and recipients perceptions of early childhood professional development in mathematics.* Poster presented at the annual meeting of Psychology of Mathematics Education - North American Chapter. Chicago, IL.

Linder, S. M., & **Simpson, A.** (2013). *Investigating the influence of early childhood student teaching experiences on mathematics pedagogical beliefs.* Paper presented at the annual meeting of the American Educational Research Association. San Francisco, CA.

Linder, S. M., Rembert, K., **Simpson, A.**, Ramey, D., Brown, B., D’Amico, L., & Miller, K. M. (2013). *Examining professional development for the early care workforce: A multiphase mixed methods exploration.* Poster presented at the annual meeting of the American Educational Research Association. San Francisco, CA.

Linder, S. M., & **Simpson, A.** (2013). *Mathematics pedagogical beliefs and early childhood student teaching.* Poster presented at the annual meeting of the National Council of Teachers of Mathematics. Denver, CO.

Linder, S. M., & **Simpson, A.** (2012). *Examining changes in preservice teacher beliefs relating to early childhood mathematics pedagogy as a result of student teaching*. Paper presented at the annual meeting of the National Association of Early Childhood Teacher Educators. Atlanta, GA.

**Refereed Regional Conference Papers, Posters, and Presentations**

**Simpson, A.**, & Haltiwanger, L. (2013) *Making mathematical connection through writing.* Presented at the regional meeting of the National Council of Teacher of Mathematics. Baltimore, MD.

**Simpson, A.** (2012). *Student-centered measurement lessons.* Presented at the regional meeting of the National Council of Teacher of Mathematics. Hartford, CT.

**Refereed State Conference Papers, Posters, and Presentations**

Simpson, A., & Haltiwanger, L. (2014). *Developing an equitable lens for teaching mathematics.* Presented at annual meeting of the South Carolina Council of Teachers of Mathematics. Myrtle Beach, SC.

Haltiwanger, L., & Simpson, A. (2014). *Making sense of students’ work: Looking for understanding.* Presented at annual meeting of the South Carolina Council of Teachers of Mathematics. Myrtle Beach, SC.

Lyons, R., **Simpson, A.**, Halter, E., & Stecker, P. (2014) *Online Algebra Progress Monitoring: Helping teachers determine instructional effectiveness.* Poster presentation at the annual meeting of the South Carolina Council for Exceptional Children. Greenville, SC.

**Simpson, A.**, & Haltiwanger, L. (2013). *Use of writing to make mathematical connections.* Presented at annual meeting of the South Carolina Council of Teachers of Mathematics. Greenville, SC.

**Simpson, A.**, & Mokalled, S. (2013). *Utilize the cognitive rigor matrix to pose questions and mathematical tasks*. Presented at annual meeting of the South Carolina Council of Teachers of Mathematics. Greenville, SC.

**Simpson, A.**, & Christopher, J. (2013). *Being responsive to students’ perceptions and experiences.* Presented at the annual meeting of the Palmetto State Gender Institute. Spartanburg, SC.

Ramey, D., **Simpson, A.**, & Carter, T. (2013). *Who knew engineering could be so much fun?* Presented at the annual meeting of the South Carolina Early Childhood Association, Charleston, SC.

**Simpson, A.** (2012). *Student-centered measurement lessons.* Presented at annual meeting of the South Carolina Council of Teachers of Mathematics. Myrtle Beach, SC.

Haltiwanger, L., & **Simpson, A.** (2012). *Proportional reasoning in middle grades.* Presented at annual meeting of the South Carolina Council of Teachers of Mathematics. Myrtle Beach, SC.

**Refereed Local Conference Papers, Posters, and Presentations**

Stecker, P. M., Simpson, A., Lyons, R., Genareo, V., & Foegen, A. (2015). *Online professional development for algebra progress monitoring: Teacher use and satisfaction*. Poster presented at the annual College of Health and Human Development/School of Education Research Forum. Clemson, SC.

Halter, E., **Simpson, A.**, & Stecker, P. (2014). *Teachers’ perceptions of an online professional development system in algebra progress monitoring.* Poster presented at the annual College of Health, Education, and Human Development Forum. Clemson, SC.

**Simpson, A.**, Martinez, E., Reese, K. L., Pindar, L., Fine, C., & Quigley, C. (2013). *The IRB conundrum: The challenges of research in a digital age.* Poster presented at the annual College of Health, Education, and Human Development Forum. Clemson, SC.

**GRANTS**

**Awarded Grant Projects**

Title: 2014 Advanced Placement (AP) Teacher Institutes

Funding Agency: South Carolina State Department of Education

Role: Aid in writing part of the grant proposal such as the budget and course narratives per AP course; co-coordinated orientation; contacting publishers and maintaining textbook budget; collecting and writing final evaluations and reports

Amount of Funding: $60,710

Title: 2014 Advanced Placement (AP) Teacher Institutes

Funding Agency: South Carolina State Department of Education

Role: Aid in writing part of the grant proposal such as the budget and course narratives per AP course; co-coordinated orientation; contacting publishers and maintaining textbook budget; collecting and writing final evaluations and reports

Amount of Funding: $28,681

Title: 2015 Advanced Placement (AP) Teacher Institutes

Funding Agency: South Carolina State Department of Education

Role: Aid in writing part of the grant proposal such as the budget and course narratives per AP course; co-coordinated orientation; maintain textbook budget

Amount of Funding: $83,525

Title: 2015 Advanced Placement (AP) Teacher Institutes

Funding Agency: South Carolina State Department of Education

Role: Aid in writing part of the grant proposal such as the budget and course narratives per AP course; co-coordinated orientation; maintain textbook budget

Amount of Funding: $45,889

**TEACHING AND ADVISING**

**Courses Taught**

Fall 2013 Teaching Secondary Mathematics

Fall 2014 Teaching Methods and Strategies for Secondary Mathematics

**Supervising**

Spring 2015 Student Teacher Supervisor – Secondary Mathematics

Spring 2013 Student Teacher Supervisor – Secondary Mathematics

**SERVICE**

May 2015 Reviewer, Chapter Proposals for Teaching Noticing Monograph

May 2015 Reviewer, North American Chapter of the International Group for the Psychology of Mathematics Education (PME-NA) Research Conference

February 2015 - Reviewer, *Early Childhood Education Journal*

Present

September 2014 Reviewer, National Association for Research in Science Teaching (NARST) International Research Conference

July 2014 - Reviewer, *The MathMate*

July 2015

June 2014 - Project WISE (Women in Science & Engineering) & We Do Math

June 2015 summer camps

Clemson University, South Carolina

November 2013 - Reviewer, Research Council on Mathematics Learning (RCML) Research

Present Conference

September 2013 - Reviewer, *Mathematics Teaching in the Middle School*

Present

August 2013 - Reviewer, National Council of Teachers of Mathematics (NCTM)

Present Research Conference

June 2013 Reviewer, Association of Mathematics Teacher Educators (AMTE) Research Conference

March 2013 - Reviewer, North American Chapter of the International Group for the

Present Psychology of Mathematics Education (PME-NA) Research Conference

August 2012 - College of Health, Education and Human Development Graduate

July 2013 Advisory Board; Clemson, SC

April 2012 - Reviewer, *Mathematics Teacher*

Present

**PROFESSIONAL MEMBERSHIPS**

2005 – Present National Council of Teachers of Mathematics (NCTM)

2012 – Present American Educational Research Association (AERA)

2012 – Present Association of Mathematics Teacher Educators (AMTE)

2012 – Present Psychology of Mathematics Education - North American Chapter (PME-NA)