Curriculum Vita

EMMA KATHLEEN PRICE BULLOCK

Business Address:
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EDUCATION

Ph.D. May 2017
Education: Utah State University
Specialization: Curriculum and Instruction
Concentration: Mathematics Education and Leadership
Dissertation: *An Explanatory Sequential Mixed Methods Study of the School Leaders' Role in Students' Mathematics Achievement Through the Lens of Complexity Theory*

M.M. December 2016
Mathematics: Utah State University

M.Ed. May 2010
Master of Education in Educational Leadership, Argosy University.
Utah Professional Administrative License, K-12 (2011)

B.S. April 2001
Mathematics with an Emphasis in Combinatorics
Music with an Emphasis in Vocal Performance, Brigham Young University.
Utah Professional Teaching Level I License, 6-12 with a Math Level IV endorsement (2001).
Utah Professional Teaching Level II License, 6-12 with a Math Level IV endorsement (2007)

EMPLOYMENT HISTORY

SAM HOUSTON STATE UNIVERSITY

Assistant Professor, Mathematics Education (August 2017-present)
Sam Houston State University, Department of Mathematics and Statistics, College of Science and Engineering Technology, Huntsville, TX
Responsibilities include teaching graduate and undergraduate courses in Mathematics Education (Elementary and Secondary) and Mathematics courses (such as Linear Algebra, etc.); assisting in the development and implementation of programs for students; advising students; supervising graduate assistants, and developing a professional agenda of teaching, citizenship, and scholarship within the university community.

UTAH STATE UNIVERSITY

Graduate Research and Teaching Assistant (2013-2017)
Utah State University, School of Teacher Education and Leadership, College of Education & Human Services, Logan, UT
Research responsibilities included assisting professors on various research projects in mathematics education such as fulfilling the role of project coordinator (i.e. all participant recruitment and interview scheduling), development of

interview protocols and other relevant documentation such as demographic/parent surveys, informed consent and parent information sheets, interviewing participants, coding video observations of participant actions, performing all levels of quantitative and qualitative data analysis, and participating in group papers and presentations. Virtual Manipulatives Database, manager (2015-2016), which included the following: (a) Maintain research database and review of articles for inclusion therein; (b) Develop and organize review and coding procedures for contributors

Teaching assistant responsibilities included teaching the Level III undergraduate mathematics methods course, supervising Level III practicum student teachers, collaborating with Edith Bowen Laboratory School teachers, and creating and teaching master's level elementary endorsement courses (i.e. Geometry and Measurement, Algebraic Reasoning, modules for the Elementary Mathematics Teachers Academy (EMTA)). These included face-to-face, distance broadcast, online, and hybrid classroom settings.

EDUCATIONAL LEADERSHIP/ADMINISTRATIVE EXPERIENCE

MOUNTAINVILLE ACADEMY

Executive Director/Superintendent (2013-2014).
K-9 Utah Public Charter School, Alpine, Utah
As executive director/superintendent, responsibilities included supervising all aspects of school operation, achieving the school's mission of building leaders', one student at a time, through personal and academic excellence, overseeing the entire academic program, professional development of staff, managing the school's public relations efforts with the broader community, and ensuring legal compliance with public education laws and regulations. As the mathematics coordinator, responsibilities included initially assessing and placing all students, K-9, into appropriate math groups, managing movement between the groups based on data, throughout the school year, planning and conducting mathematics professional development for all math teachers, K-9, providing coaching, curriculum planning and ensuring the appropriate resources are available for students and teachers.

Administrative Director/Principal (2009-2013).
Mathematics Coordinator K-9 (2006-2014)
K-9 Utah Public Charter School, Alpine, Utah
As administrative director, responsibilities included supervising all aspects of school operation, achieving the school's mission of building leaders', one student at a time, through personal and academic excellence, overseeing the entire academic program, training and motivating all staff, managing the school's public relations efforts with students, parents, and the broader community, and ensuring legal compliance with public education laws and regulations. As the mathematics coordinator, responsibilities included initially assessing and placing all students, K-9, into appropriate math groups, managing movement between the groups based on data, throughout the school year, planning and conducting mathematics professional development for all math teachers, K-9, providing coaching, curriculum planning and ensuring the appropriate resources are available for students and teachers.

PUBLIC SCHOOL TEACHING EXPERIENCE

MOUNTAINVILLE ACADEMY

Teacher, Pre-Calculus, Algebra II, Algebra I, Pre-Algebra, 7th grade math, 6th grade math, 5th grade math (2006-2009).
Middle School Department Chair/Lead Teacher (2008-2009)
Mentor Teacher (2009-2014)
K-8 Utah Public Charter School, Alpine, Utah
Responsibilities included teaching classes in accordance with Utah professional teaching and mathematics standards, acting as the liaison between the middle school teachers and administration, conducting middle school team meetings, as needed, working with other teachers in various disciplines to coordinate and integrate curriculum and logistical needs, and any other duties, as required.

GEORGETOWN HIGH SCHOOL

Teacher, Algebra II Honors, Algebra II, Math Tech I, Student Council (2005-2006).
Georgetown School District, Georgetown, South Carolina
Responsibilities included teaching classes in accordance with South Carolina professional teaching and mathematics standards, acting as the advisor for the student counsel, and any other duties, as required.

JOHN HANCOCK CHARTER SCHOOL

Teacher, Algebra II, Algebra I, Pre-Algebra, 8th grade Integrated Science, 7th grade Integrated Science, 6th grade Integrated Science, 7th-8th Choir, Student Council (2003-2005).
K-8 Utah Public Charter School, Pleasant Grove, Utah
Responsibilities included teaching classes in accordance with Utah professional teaching, mathematics, science, and music standards, acting as the advisor for the student counsel, and any other duties, as required.

PAYSON JUNIOR HIGH SCHOOL

Internship, Teacher, Algebra I, Pre-Algebra, Music Director for after school production of "Bye, Bye Birdie" (2000-2001).
Nebo School District, Payson, Utah
Responsibilities included teaching classes in accordance with Utah professional teaching and mathematics standards, acting as the music director for the after school musical production, and any other duties, as required.

AWARDS & PROFESSIONAL RECOGNITION

- **2017 Sherrie Reynolds Scholarship Award, Chaos and Complexity Theory SIG, AERA.** (2017).
- **2016 Graduate Researcher of the Year, School of Teacher Education and Leadership (TEAL).** (2015-16).
- **2016-17 Frederick Q. Lawson Fellowship Award.** (2016-17).
- **2016-17 School of Graduate Studies Dissertation Fellowship Award.** (2016-17).
- **Graduate Student Senate Enhancement Award.** (2016-17).
- **Graduate Research and Creative Opportunities Grant Award.** (2016).
- **Division A Senior Graduate Representative, American Education Research Association (AERA).** (2016-2017).
- **Division A Junior Graduate Representative, American Education Research Association (AERA).** (2015-2016).
- **Graduate Research and Teaching Assistant, Utah State University.** (2013-present).
- **2013 National Promising Practice Award, LLS Learning and Leadership Strategies, as Principal of the Mountainville Academy,** Character Education Partnership (2013).
- **2012-present Principal of the National School of Character, Mountainville Academy.** Character Education Partnership (2012).
- **2012 National Promising Practice Award, Leadership Day, as Principal of the Mountainville Academy.** Character Education Partnership (2012).
- **2011-13 Principal of the State School of Character, Mountainville Academy**, Eunice Kennedy Shriver National Center for Community of Caring (2011).

- **2011-2014 Principal of the Lighthouse School Designation, Mountainville Academy**, Franklin Covey (2011).
- **2011 Utah State Promising Practice Award, Legacy Hour, as Principal of Mountainville Academy**, Eunice Kennedy Shriver National Center for Community of Caring (2011).
- **2011 Red Robin School of Merit, as Principal of the Mountainville Academy** for random acts of service. Red Robin, Corp. (2011).
- **2011 and 2009 Honorable Mention—PTL Magazine as Principal of the Mountainville Academy** for Mountainville's Family School Organization (FSO), (2009; 2011).
- **2010 Innovating Practice Award, as Principal of the Mountainville Academy** for Different Abilities Day, George Eunice Kennedy Shriver National Center for Community of Caring (2010).
- **2010 Charter School Innovations Excellence Award** as Principal of the Mountainville Academy**,** Utah Association of Public Charter Schools (2010).
- **2010 Leader in Me School Designation as Principal of the Mountainville Academy** Franklin Covey (2010).
- **2009 State Math Contest—2nd place 8th grade Team as Math Teacher/Principal of the Mountainville Academy.**

RESEARCH PROJECTS

Affordances of Virtual Manipulatives Touch-Screen Apps for Mathematics Learning. (2016-2018). Project Coordinator. Utah State University. (with PI Dr. Patricia Moyer-Packenham and the Virtual Manipulative Research Group). My roll: Responsible for all participant recruitment and interview scheduling. Participating in all aspects of project development, implementation, analysis and publication of results including data collection, coding of data, and both qualitative and quantitative analysis.

GreenWood Charter School: Growing GreenWood Teachers' Mathematics Pedagogical Content Knowledge Through Action Research in the Classroom. (2015-2017). Program Director/Coordinator. Action research collaboration between Utah State University and GreenWood Charter School in Harrisville, UT. My roll: Oversee and develop all on-site professional development and support of teachers, coordinate all research support for teacher publications and presentations, manage day to day budget and operations.

Captivated! Young Children's Learning Interactions with iPad Mathematics Apps. (2013-2015). Code video observations of participant actions and find emerging themes and data analysis. Utah State University (with PI Dr. Patricia Moyer-Packenham and the Virtual Manipulatives Research Group). My roll: Quantitative analysis for affordances across apps, oversee and participate in qualitative analysis for affordances across apps. Lead author of preschool papers on affordances across apps, second author over analysis of data and major portions (methods/results/discussion) of across grade papers on affordances across apps. Conference presentation preparation.

PUBLICATIONS

Journal Articles (Refereed)

Bullock, E. P., Shumway, J. F., Watts, C., Moyer-Packenham, P. S. (2017). Affordance Access Matters: Preschool Children's Learning Progressions While Interacting with Touch-Screen Mathematics Apps. *Technology, Knowledge and Learning.* Doi: 10.1007/s10758-017-9312-5

Moyer-Packenham, P. S., **Bullock, E. P.**, Shumway, J. F., Tucker, S. I., Watts, C., Westenskow, A., Anderson-Pence, K. L., Maahs-Fladung, C., Boyer-Thurgood, J., Gulkilik, H., & Jordan, K. (2016). The role of affordances in children's learning performance and efficiency when using virtual manipulative mathematics touch-screen apps. *Mathematics Education Research Journal,* 28(1), 1-27. Doi: 10-1007/s13394-015-0161-z

Moyer-Packenham, P. S., Watts, C., Tucker, S. I., **Bullock, E.P.**, Shumway, J. F., Westenskow, A., Boyer-Thurgood, J. M., Anderson-Pence, K. L., Mahamane, S., Jordan, K. (2016). An Examination of Children's Learning Progression Shifts While Using Touch Screen Virtual Manipulatives Apps. *Computers in Human Behavior, 64, 814-828.*

Bullock, E. P., Ashby, M.J., Spencer, B., Manderino, K., Myers, K. (2015). Saxon math in the middle grades: A content analysis. *International Journal of Learning, Teaching, and Educational Research, 14 (1), 63-96.*

Bullock, E. P., Kidd. J., O'Driscoll, T., Reid, A. (2015). Bridging research and practice: Growing greenwood elementary teachers' mathematics pedagogical content knowledge through action research in the classroom: The beginning. *Utah Mathematics Teacher, 8,* 40-45.

Moyer-Packenham, P. S., Shumway, J. F., **Bullock, E.**, Tucker, S. I., Anderson-Pence, K. L., Westenskow, A., Boyer-Thurgood, J., Maahs-Fladung, C., Symanzik, J., Mahamane, S., MacDonald, B., & Jordan, K. (2015). Young children's learning performance and efficiency when using virtual manipulative mathematics iPad apps. *Journal of Computers in Mathematics and Science Teaching, 34*(1), 41-69.

Journal Articles (Invited)

Bullock, E. (2014). Using the new SAGE assessment to increase student performance. *Charterology, 4(1), 24-25.*

Conference Proceedings (Refereed)

Bullock, E. P., Moyer-Packenham, P. S., Shumway, J. F., Watts, C., MacDonald, B. (2015, March). Effective teaching with technology: Managing affordances in iPad apps to promote young children's mathematics learning. In D. Rutledge & D. Slykhuis (Eds.), *Proceedings of the Society for Information Technology and Teacher Education International Conference* (pp. 2357-2364), Las Vegas, Nevada.

Moyer-Packenham, P. S., Westenskow, A., Shumway, J. F., **Bullock, E.**, Tucker, S. I., Anderson-Pence, K. L., Boyer-Thurgood, J., Maahs-Fladung, C., Symanzik, J., Mahamane, S., MacDonald, B., & Jordan, K., The Virtual Manipulatives Research Group at Utah State University. (2014, September). The effects of different virtual manipulatives for second graders' mathematics learning in the touch-screen environment. *Proceedings of the 12th International Conference of the Mathematics Education into the 21st Century Project*, (Vol. 1, p. 1-6). Herceg Novi, Montenegro.

Boyer-Thurgood, J., Moyer-Packenham, P., Tucker, S., Anderson, K., Shumway, J., Westenskow, A., & **Bullock, E**. (2014, January). Kindergartener's Strategy Development during Combining Tasks on the iPad. *Proceedings of the 12th Annual Hawaii International Conference on Education* (HICE), (pp. 1113-1114), Honolulu, Hawaii, ISSN# 1541-5880.

Moyer-Packenham, P. S., Anderson, K. L., Shumway, J. F., Tucker, S., Westenskow, A., Boyer-Thurgood, J., **Bullock, E.**, Mahamane, S., Baker, J., Gulkilik, H., Maahs-Fladung, C., Symanzik, J., & Jordan, K., The Virtual Manipulatives Research Group at Utah State University. (2014, January). Developing research tools for young children's interactions with mathematics apps on the iPad. *Proceedings of the 12thAnnual Hawaii International Conference on Education* (HICE), (pp. 1685-1694), Honolulu, Hawaii, ISSN# 1541-5880.

Tucker, S. I., Moyer-Packenham, P. S., Boyer-Thurgood, J. M., Anderson, K. L., Shumway, J. F., Westenskow, A., & **Bullock, E.**, The Virtual Manipulatives Research Group at Utah State University. (2014, January). Literature supporting investigations of the nexus of mathematics, strategy, and technology in children's interactions with iPad-

based virtual manipulatives. *Proceedings of the 12th Annual Hawaii International Conference on Education* (HICE), (pp. 2338-2346), Honolulu, Hawaii, ISSN# 1541-5880.

Other Publications

Moyer-Packenham, P. S., Shumway, J. F., **Bullock, E.**, Tucker, S. I., Anderson-Pence, K., Westenskow, A., Boyer-Thurgood, J., Maahs-Fladung, C., Symanzik, J., Mahamane, S., MacDonald, B., & Jordan, K., The Virtual Manipulatives Research Group at Utah State University. (2014, April). *Young children's learning performance and efficiency when using virtual manipulative mathematics iPad apps.* Paper presented at the annual National Council of Teachers of Mathematics Research Conference (NCTM-R), New Orleans, Louisiana.

Accepted with Revisions

Moyer-Packenham, P.S., Litster, K., **Bullock, E.**, Shumway, J.F. (under review, 2017). *Using Video Analysis to Explain How Virtual Manipulative App Alignment Affects Children's Mathematics Performance and Efficiency. TSG 41 monograph.* Unpublished manuscript.

Revise and Resubmit

Bartholomew, S., Nadelson, L.S., **Bullock, E.P.** (revise and resubmit, 2017). *A Route Less Traveled: Principals' Perceptions of Alternative Lincensed CTE Teachers. Career and Technical Education Research.* Unpublished manuscript.

In Progress

Bullock, E. P. (in progress). *Teaching the Teachers: An International Literature Review on Effective Professional Development in Mathematical Discourse Through the Lens of Complexity Theory*. Unpublished manuscript.

UNIVERSITY TEACHING

Sam Houston State University, Huntsville, Texas (2017-present)

MATH 3377—Introduction to Linear Algebra and Matrices. Topics include: solving systems of linear equations, fundamental matrix theory (invertibility theorems, determinants), eigenvectors, and properties of linear transformations. Remaining topics are chosen from: Properties of general vector spaces, inner product spaces, and/or diagonalization of symmetric matrices.

MATH 1384—Foundations of Mathematics for Elementary Teachers (I). This course is the first in a series of courses designed to develop the necessary foundations in mathematics for prospective elementary teachers. Students are expected to practice communications skills and participate in hands-on activities, including the use of math manipulatives and technology. Topics include National and Texas standards for teaching mathematics, sets, numeration systems, natural numbers, integers, number theory and rational numbers. Throughout the course, the five main themes recommended by the NCTM Principles and Standards (problem solving, reasoning, communication, connections, and representation) will be emphasized. Students will also participate in class discussions and group work during this course.

Utah State University, Logan, Utah (2013-2017)
College of Education and Human Services

TEAL 6523/TEPD 5523—Mathematics for Teaching K-8: Algebraic Reasoning Graduate Course. Provides practicing teachers with a deeper understanding of algebraic expressions, equations, functions, real numbers and instructional strategies to facilitate the instruction of this content for elementary students.

TEAL 6524/TEPD 5524/EMTH 5060—Mathematics for Teaching K-8: Geometry & Measurement
Graduate Course. Provides practicing teachers with an in-depth understanding of measurement and geometry content correlated with the state core curriculum, and instructional strategies that facilitate the teaching of this content. Blended Format.

ELED 4060—Teaching Mathematics and Practicum Level III
Undergraduate Course. Relevant mathematics instruction in the elementary and middle-level curriculum; methods of instruction, evaluation, remediation, and enrichment. Included the six-week supervision of Level III practicum students in participating public school settings. Traditional Format.

CURRICULUM DEVELOPMENT

Utah State University, Logan, Utah (2013–2017)
Elementary Mathematics Teacher Academy – Developed course materials for master's level courses for Utah State University's Elementary Mathematics Teacher Academy (EMTA). Course designed to develop teachers' mathematical knowledge for teaching aligned with the Common Core State Standards for Mathematics. Materials developed included readings, video lectures, application assignments, and assessments for online course delivery. Developed the following fourth-grade curriculum modules (with more in progress regarding mathematical practices):

4.G.A.1	Drawing Points, Lines, and Angles and Identifying Them in Two-Dimensional Figures (2015)
4.G.A.2	Classifying Two-Dimensional Figures (2015)
4.G.A.3	Lines of Symmetry (2015)
4.G.Big Idea	Classifying Properties of Objects: Conjecturing, Solving, Explaining, and Proving (2015)
4.OA.Big Idea	Arithmetic as a Context for Algebraic Thinking (2014)

TEAL 6523/TEPD 5523/EMTH 5050—Mathematics for Teaching K-8: Algebraic Reasoning (2016)
Taught the course in a blended interactive broadcast hybrid format, used feedback to create completely online course containing 9 modules which include video presentations, slides, readings, learning activities, solutions to worked out problems, discussions, homework help and assessments. Available now through Utah State University's Elementary Mathematics Teacher Academy (EMTA) as an online course every term.

TEAL 6524/TEPD 5524/EMTH 5060—Mathematics for Teaching K-8: Geometry & Measurement (2015-2017)
Taught the course in a blended interactive broadcast hybrid format, used feedback to create completely online course containing 9 modules which include video presentations, slides, readings, learning activities, solutions to worked out problems, discussions, homework help and assessments. Available now through Utah State University's Elementary Mathematics Teacher Academy (EMTA) as an online course every term.

PAID CONSULTANCY

Bear River Charter School, Logan, Utah (2017-present)

Providing professional development services in K- elementary and middle school mathematics education for Bear River charter comprising 9 K-8 teachers. Professional development includes mathematics content knowledge, pedagogical content knowledge, and curriculum implementation.

Greenwood Charter School, Harrisville, Utah (2015-2017)

Providing professional development services in K-6 elementary mathematics education for Greenwood charter comprising 22 K-6 teachers. Professional development includes mathematics content knowledge and pedagogical content knowledge in the areas of numbers & operations, rational numbers & proportional reasoning, and geometry and measurement. In addition, the project includes professional development in action research, lesson study, and support for teacher lead publications and local, state, and national conference presentations.

Western Governors University, Salt Lake City, Utah (2013-2014)

Online Teachers College

Supervised administrative intern, Lisa Panek, as part of her Educational Leadership endorsement program.

GRANTS FUNDED

(Over *$155,000 Dollars in Total Grant Funding*)

Sherrie Reynolds Scholarship Award (Chaos and Complexity Theory SIG) ($500). *Best Graduate Student Paper Presentation.* (2017) American Educational Research Association (AERA)

Travel Grant, School of Teacher Education and Leadership (TEAL) ($800). *Presentations and Leadership Role at 101st American Educational Research Association (AERA) Conference.* (2017) Utah State University.

Graduate Student Travel Award, Office of Research and Graduate Studies ($300). *Presentations and Leadership Role at 101st American Educational Research Association (AERA) Conference*. (2017) Utah State University.

Frederick Q. Lawson Fellowship Award ($9000). *Emma Eccles Jones College of Education and Human Services.* (2016-2017). Utah State University.

School of Graduate Studies Dissertation Fellowship Award ($5000). *Dissertation Funding.* (2016-2017). Utah State University.

Graduate Student Senate Enhancement Award ($4000). *Utah State University Student Association (USUSA).* (2016-2017). Utah State University.

Graduate Research and Creative Opportunities (GRCO) Grant ($1000). *Utah State University Student Association (USUSA) Dissertation Funding.* (2016). Utah State University.

Graduate Research Assistant ($68,000). *Captivated! Young Children's Learning Interactions with iPad Mathematics Apps.* (2013-2017). Utah State University. Project Goal: build theory and knowledge about the nature of young children's ways of thinking and interacting with virtual manipulatives using touch-screen mathematics apps on the ipad. My role: code video observations of participant actions and find emerging themes. (with Principal Investigator Patricia Moyer-Packenham, Co-PI Cathy Maahs-Fladung, and the Virtual Manipulatives Research Group).

Division A Senior Graduate Representative (AERA) ($1800). *AERA 2017 Annual Meeting and Central Committee Meeting Travel Funding Stipend.* (2016-17) American Educational Research Association (AERA).

Division A Junior Graduate Representative (AERA) ($800). *AERA 2016 Annual Meeting Travel Funding Stipend.* (2015-16) American Educational Research Association (AERA).

Travel Grant, School of Teacher Education and Leadership (TEAL) ($700). *Presentation at 12th Annual Hawaii International Conference of Education (HICE).* (2014) Utah State University.

Research Travel Grant, Center for Women and Gender ($500). *Presentation at 12th Annual Hawaii International Conference of Education (HICE).* (2014) Utah State University.

Lead Writer. ($49,450). *Blue Sky Funding Award Mountainville Academy Solar Project*. (2012-2013). Rocky Mountain Power. Project goal: community-based renewable energy project. This funds the installation of solar panels at Mountainville Academy.

Co-Writer ($13,500). *Technology in the Classroom Initiative*. (2012). Daniel's Fund. Project goal: Provide SMARTboard technology to seven middle school classrooms at Mountainville Academy. (with co-writer – Becky Garzella, Grants and Donations Parent Volunteer)

Co-Writer ($2,900). *Storytelling Festival Initiative* (2012). Ashton Foundation. Project goal: Instigate a cross-curriculum storytelling program. In conjunction with money from the parent organization, the grant will help provide textbooks, a storytelling library, and interaction with professional storytellers from the Timpanogos Storytelling Festival. (with co-writer – Becky Garzella, Grants and Donations Parent Volunteer).

PRESENTATIONS

Invited Addresses

Bullock, E. P. (2016, April). *Discussant: Mathematics and Technology-Based Learning Environments.* Paper Session, American Educational Research Association (AERA) Annual Meeting, Washington, D.C.

International Presentations-Scholarship

Bullock, E. P. (2016, July). *Preliminary Results of an Explanatory Sequential Mixed Methods Study of the School Leader's Role in Students' Mathematics Achievement Through the Lens of Chaos and Complexity Theory.* 25th Annual International Society for Chaos Theory in Psychology & Life Sciences (SCTPLS), Salt Lake City, Utah.

Moyer-Packenham, P. S., Shumway, J. F., **Bullock, E.**, Anderson-Pence, K., Tucker, S. I., Westenskow, A., Boyer-Thurgood, J., Gulkilik H., Watts, C. M., & Jordan, K., The Virtual Manipulatives Research Group at Utah State University. (2016, July). *Using Virtual Manipulatives on IPads to Promote Young Children's Mathematics Learning.* 13th International Congress on Mathematical Education (ICME), Hamburg, Germany.

Moyer-Packenham, P.S., **Bullock, E.**, Watts, C., Tucker, S. I., Shumway, J. F., Anderson-Pence, K. L., Westenskow, A., Boyer-Thurgood, J., Gulkilik, H. Jordan, K., (2015, April), *The Relationship Between Affordances od Virtual Manipulatives Mathematics Apps and Young Children's Learning Performance And Efficiency.* Paper Presentation, International Conference on Education in Mathematics, Science, & Technology, Anatalya, Turkey.

Bullock, E. P., Moyer-Packenham, P. S., Shumway, J. F., MacDonald, B., Watts, C. (2015, March). *Effective teaching with technology: Managing affordances in iPad apps to promote young children's mathematics learning*. Paper Presentation, Society for Information Technology and Teacher Education International Conference 2015, Las Vegas, Nevada.

Moyer-Packenham, P. S., Westenskow, A., Shumway, J. F., **Bullock, E**., Tucker, S. I., Anderson-Pence, K. L., Boyer-Thurgood, J., Maahs-Fladung, C., Symanzik, J., Mahamane, S., MacDonald, B., & Jordan, K., The Virtual Manipulatives Research Group at Utah State University. (2014, September). *The Effects of Different Virtual Manipulatives for Second Graders' Mathematics Learning and Efficiency in the Touch-Screen Environment.* Paper Presentation, 12th International Conference of the Mathematics Education into the 21st Century Project, Herceg Novi, Montenegro.

Moyer-Packenham, P. S., Shumway, J., Westenskow, A., Tucker, S., Anderson, K., Boyer-Thurgood, J., & **Bullock, E**. (2014, January). *Young Children's Mathematics Interactions with Virtual Manipulatives on iPads*. Research Presentation, 12thAnnual Hawaii International Conference on Education (HICE), Honolulu, Hawaii.

Tucker, S. I., Moyer-Packenham, P. S., Boyer-Thurgood, J. M., Anderson, K. L., Shumway, J., Westenskow, A., & **Bullock, E**. (2014, January). *The Nexus of Mathematics, Strategy, and Technology in Second-Graders' Interactions with an iPad-Based Virtual Manipulative*. Paper Session, 12th Annual Hawaii International Conference on Education (HICE), Honolulu, Hawaii.

Boyer-Thurgood, J., Moyer-Packenham, P. S., Shumway, J., Westenskow, A., Tucker, S., Anderson, K., & **Bullock, E**. (2014, January). *Kindergartener's Strategy Development during Combining Tasks on the iPad*. Research Presentation, 12thAnnual Hawaii International Conference on Education (HICE), Honolulu, Hawaii.

National Presentations-Scholarship

Bullock, E. P. (2017, April). *The School Leaders' Role in Students' Mathematics Achievement Through the Lens of Complexity Theory.* Roundtable Paper Presentation—Roundtable Session: Teaching, Learning and Educational Leadership from a Complexity Perspective. American Educational Research Association (AERA) Annual Meeting, San Antonio, TX.

Moyer-Packenham, P. S., **Bullock, E. P.**, Shumway, J. S., Tucker, S. I., Watts, C. M., Westenskow, A., Anderson-Pence, K. L., Boyer-Thurgood, J. Jordan, K. (2017, April). *Affordances of Virtual Manipulative Math Apps: How They Help and Hinder Young Children's Learning*. Paper Presentation. American Educational Research Association (AERA) Annual Meeting, San Antonio, TX

Watts, C., Moyer-Packenham, P.S., Tucker, S.I., **Bullock, E.P.**, Shumway, J.F., Westenskow, A., Boyer-Thurgood, J., Anderson-Pence, K., Mahamane, S., Jordan, K. (2017, April). *Learning Progression Shifts: How Touch-Screen Virtual Manipulative Mathematics App Design Promotes Children's Productive Struggle.* Poster Presentation—Poster Session: Expanding the Scope of Learning with Innovative Technologies. American Educational Research Association (AERA) Annual Meeting, San Antonio, TX.

Bullock, E. P. (2017, April). *Chair: Leadership in High-Poverty Schools.* Roundtable Session. American Educational Research Association (AERA) Annual Meeting, Washington, D.C.

Moyer-Packenham, P. S., **Bullock, E. P.**, Shumway, J. S. (2017, April). *The Impact of Technology Affordances in Children's Mathematical Learning*. Paper Presentation—Paper Session: Achieving the Promise in Digital Leadership. National Council of Teachers of Mathematics (NCTM) Research Conference and Annual Meeting, San Antonio, TX

Bullock, E. P. (2016, November). *The School Leaders' Role in Students' Mathematics Achievement Through the Lens of Complexity Theory*. Paper Presentation. 30th Annual University Council for Educational Administration (UCEA) Convention, Detroit, Michigan.

Bullock, E. P. (2016, November). *GSS The School Leaders' Role in Students' Mathematics Achievement Through the Lens of Complexity Theory*. Graduate Student Paper Presentation. 30th Annual University Council for Educational Administration (UCEA) Convention, Detroit, Michigan.

Moyer-Packenham, P. S., **Bullock, E.**, Shumway, J. F., Tucker, S. I., Watts, C. M., Westenskow, A., Anderson-Pence, K., Maahs-Fladung, C., Boyer-Thurgood, J., Gulkilik H., & Jordan, K., The Virtual Manipulatives Research Group at Utah State University. (2016, April). *Using Virtual Manipulatives on iPads to Promote Young Children's Mathematics Learning.* American Educational Research Association (AERA) Annual Meeting, Washington, D.C.

Bullock, E. P. (2015, Nov.). *Growing Teachers' Mathematics Pedagogical Content Knowledge Through the Expectation of Action Research in the Classroom,* Graduate Student Abstract Exchange Round Table Session, Graduate Student Summit, University Council for Educational Administration (UCEA), San Diego, CA

Moyer-Packenham, P. S., Shumway, J. F., **Bullock, E.**, Tucker, S. I., Anderson-Pence, K., Westenskow, A., Boyer-Thurgood, J., Maahs-Fladung, C., Symanzik, J., Mahamane, S., MacDonald, B., & Jordan, K., The Virtual Manipulatives Research Group at Utah State University. (2014, April). *Young children's learning performance and efficiency when using virtual manipulative mathematics iPad apps.* Paper presented at the annual National Council of Teachers of Mathematics Research Conference (NCTM), New Orleans, Louisiana.

Moyer-Packenham, P. S., Shumway, J., Tucker, S., Boyer-Thurgood, J., Hunt, J., & **Bullock, E**. (2014, April). *Children's Mathematics Interactions with Virtual Manipulatives on iPads*. Paper Presentation, National Council of Teachers of Mathematics (NCTM) Research Conference, New Orleans, Louisiana.

State & Regional Presentations

Bullock, E.P. (2016, November). *Addressing the Standards Equitably in a Multi-Grade Expeditionary Setting.* Workshop Presentation. The Utah Council of Teachers of Mathematics (UCTM) Annual Conference, Salt Lake City area, Utah.

Bullock, E. P. (2016, June). *Effective Teaching with Technology: Managing Affordances in IPad Apps to Promote Young Children's Mathematics Learning.* 10th Annual Utah Association of Public Charter Schools (UAPCS) Conference, Layton, Utah.

Bullock, E.P. (2016, June). *Teaching Algebraic Reasoning Through the Criteria for Representation-Based Proof.* 10th Annual Utah Association of Public Charter Schools (UAPCS) Conference, Layton, Utah.

Bullock, E.P & Kidd, J. (2015, Nov.). *A Model of Principles to Actions: Growing GreenWood Teachers' Mathematics Pedagogical Content Knowledge Through Action Research—Results so Far*, Workshop Presentation, Utah Council of Teachers of Mathematics Annual State Conference (UCTM), Lehi, Utah.

Bullock, E.P. and Kidd, J. (2015, June). *Growing GreenWood Elementary Teachers' Mathematics Pedagogical Content Knowledge Through Saxon Math and Action Research in the Classroom*, Workshop Presentation, Utah Association of Public Charter Schools (UAPCS) Annual Conference, Provo, Utah.

Bullock, E., (2014, November) *Orchestrating Whole Class Discourse as Part of a Problem-Solving Intervention Group in a 5th grade Classroom: One Practitioner/Researcher's Experience*. Workshop Presentation, Utah Council of Teachers of Mathematics Annual State Conference (UCTM), Layton, Utah.

Bullock, E., (2014, November) *Subitizing and Counting: Foundations for Pattern Building and Algebraic Reasoning*. Workshop Presentation, Utah Council of Teachers of Mathematics Annual State Conference (UCTM), Layton, Utah.

Bullock, E.P. (2014, June). *Don't Throw the Baby Out with the Bath Water: A School Leader's Guide to Developing Elementary Teachers' Mathematics Capacity and Pedagogy to Meet the Needs of the CCSSM*, Workshop Presentation, Utah Association of Public Charter Schools (UAPCS) Annual State Conference, Layton, Utah.

Bullock, E.P., Spencer, B., Ashby, J., Myers, K, & Manderino, K. (2014, June). *Saxon Math in the Middle Grades: A Content Analysis*, Workshop Presentation, Utah Association of the Public Charter Schools (UAPCS) Annual State Conference, Layton, Utah.

Bullock, E.P. (2012). *Saxon Math and the Common Core*, Workshop Presentation, Utah Association of Public Charter Schools (UAPCS) Annual State Conference, Sandy, Utah.

Bullock, E.P. and Fountaine, C. (2008, June). *Ability Grouping: The Good, the Bad, and the Ugly: Mathematics Ability Grouping at Mountainville Academy: A Case Study*, Workshop Presentation, Utah Association of Public Charter Schools (UAPCS) Annual State Conference, Provo, Utah.

Professional Presentation

Presenter, (2012, June), *Why Do You Want To Be a Charter School Principal?* Principal's Candidate Seminar, USOE, Provo, Utah.

Professional Presentations – Panels

Bullock, E., Sun, W.L. (2017, April). *Division A Fireside Chat— STEM Education and School Leadership: Equitably Accessing the Playing Field*. Co-chair Panel Presentation Special Session, American Educational Research Association (AERA) Annual Meeting, San Antonio, TX.

Panelist, (2017, April). *Graduate Student Orientation: Navigating AERA's Multiple Offerings*. Invited Speaker Session. American Educational Research Association (AERA) Annual Meeting, San Antonio, TX.

Panelist, (2016, September). *Welcome to AERA Division A: Who We Are, What We Do, And How to Get Involved*. Connect Series Panel, Online, Live Interactive Broadcast, Division A, American Educational Research Association (AERA).

La Londe, P. G., **Bullock, E.** (2016, April). *Division A Fireside Chat—Politics and Power in Community Policing and Community Schooling.* Co-chair Panel Presentation Special Session, American Educational Research Association (AERA) Annual Meeting, Washington, D.C.

Rivera, M. D., DeMartino, L., La Londe, P. G. & **Bullock, E.P.** (2015, Nov.). *AERA Division A & L Graduate Student Breakfast: Publish and "Live": Taking the Fear out of Publishing,* Co-chair Panel Presentation Special Session, University Council for Educational Administration (UCEA), San Diego, CA.

Panelist, (2015, November), *What Are Utah Charter Schools?* Utah State University Charter School Panel, USU, Logan, Utah.

Panelist, (2015, October), *Sharing PhD Experiences* Division A. Connect Series Panel, Online, Live Interactive Broadcast, Division A, American Educational Research Association (AERA).

Panelist, (2015, July), *What Are Utah Charter Schools?* Utah State University Charter School Panel, USU, Logan, Utah.

Panelist, (2010, May). *Principal Training Panel*. Brown Bag Panel Discussion, USOE, Salt Lake City, Utah.

National Presentations-Scholarship (Under Review)

Bullock, E.P. (2018, April). *Differences in Principal Decisions and Actions Impacting School-Wide Student Mathematics Performance*. Paper Session. American Educational Research Association (AERA) Annual Meeting, New York, NY.

Bullock, E.P. (2018, April). *Complexity theory: What do I do with all these variables?—An argument for random forests and variable importance plots*. Paper Session. American Educational Research Association (AERA) Annual Meeting, New York, NY.

Bullock, E. P., Shumway, J. F., Watts, C., Moyer-Packenham, P. S. (2018, April). *Preschool children's Learning Progressions While Interacting With Touch-Screen Mathematics Apps and How Affordance Access Matters*. Paper Session. American Educational Research Association (AERA) Annual Meeting, New York, NY.

Moyer-Packenham, P. S. Watts, C., Litster, K., **Bullock, E. P.,** Shumway, J. F., Ashby, J. (2018, April). *Affordances of Digital Games for Mathematics Learning in Grades 3-6.* Paper Session. American Educational Research Association (AERA) Annual Meeting, New York, NY.

SOFTWARE SKILLS

Proficient in the following mathematics/statistical analysis software/code:

- SPSS
- NVIVO
- MatLab
- LaTek

- Wolfram Mathematica
- Geometer's SketchPad
- R

STATE SERVICE—LEADERSHIP ACTIVITIES

Board Trustee (2014-2017)	*Thomas Edison Charter Schools—North and South Campus. (Academic Achievement Committee)* Help oversee the fidelity of charter implementation, ensure fiscal responsibly, practice sound governance, and ensure adherence to laws and charter requirements regarding employees, students, and the school environment. Protect the public's interests and ensure that the schools are organizationally stable. Chair: Academic Excellence Committee
Committee Member (2013-2014)	*Utah State Office of Education Policy Advisory Committee on Assessment*. Represent Utah Public Charter Schools at state meetings. Collaborate with traditional public school representatives, state office representatives, and political representatives in the development and implementation of state-wide assessment systems. Meet monthly, or as needed to advise on state standardized assessment needs and/or changes.

PROFESSIONAL AFFILIATIONS & LEADERSHIP ROLES

AMERICAN EDUCATIONAL RESEARCH ASSOCIATION (AERA)

- Division A Senior Graduate Representative/AERA Graduate Student Council Member (2016-2017) Responsibilities include: Collaborating with the Division A Graduate Student Committee to strengthen and broaden the graduate school experience for Division A students by disseminating information about annual AERA and UCEA conference sessions, inviting participation in the Connect Series webinars, and informing of various scholarships and awards through the AERA Graduate Student listserv and social media outlets. AERA Division A conference sessions and the Connect Series are planned to help fellow graduate students navigate academic life, to provide opportunities for networking with fellow graduate students, faculty, and practitioners in the field, and to offer guidance in transitioning from graduate student life to careers as professional scholars and researchers.
- Division A Junior Graduate Representative (2015-2016)
- Division C Learning and Instruction
- Division K Teaching and Teacher Education
- Division L Educational Policy and Politics
- SIG Chaos and Complexity Theory
- SIG Research in Mathematics Education
- SIG Charters and School Choice
- SIG Leadership for School Improvement
- SIG Mixed Methods
- SIG Professional Development
- SIG Supervision and Leadership
- Member (2014-present)

SOCIETY FOR CHAOS THEORY IN PSYCHOLOGY & LIFE SCIENCES (SCTPLS)

- Member (2016-present)

NATIONAL COUNCIL OF TEACHERS OF MATHEMATICS (NCTM)

- Member (2001-present)

SOCIETY FOR INFORMATION TECHNOLOGY AND TEACHER EDUCATION (SITE)

- Member (2015-present)

ASSOCIATION FOR MATHEMATICS TEACHER EDUCATORS (AMTE)

- Member (2017-present)

UTAH COUNCIL OF TEACHERS OF MATHEMATICS (UCTM)

- Member (2009-2017)

UTAH ASSOCIATION OF PUBLIC CHARTER SCHOOLS (UAPCS)

- Member (2009-2017)