Allison L. Roxburgh

801-608-1844 alroxburgh@gmail.com

EDUCATION

- Ph.D. Expected December 2022
 Education, Utah State University
 Specialization: Curriculum and Instruction
 Concentration: Mathematics Education and Leadership
 Dissertation: How Preservice Teachers' Awareness of Design Features and
 Academic Language Features Relates to Choosing and Evaluating Digital Math
 Games for English Language Learners.
 (Chair: Patricia S. Moyer-Packenham)
- M.Ed. Expected December 2022 Masters of Education, Utah State University Concentration: Instructional Technology
- M.Ed. December 2016 Masters of Education, Utah State University Mathematics Endorsement
- B.S. December 2012 Elementary Education, Utah State University Level 2 Elementary Teaching Certificate (1-8), Utah

EMPLOYMENT HISTORY

UNIVERSITY OF NORTHERN COLORADO

Adjunct Professor & Teacher Candidate Supervisor (Fall 2022) University of Northern Colorado, College of Education and Behavioral Sciences, School of Teacher Education, Greeley, Colorado

Responsibilities include teaching a face-to-face elementary introduction course and mentoring three elementary pre-service teachers in practicum settings.

UTAH STATE UNIVERSITY

Adjunct Professor (Fall 2022) Graduate Research & Teaching Assistant (2017-2022) Presidential Doctoral Research Fellow (2018-2022)

Utah State University, College of Education & Human Services, School of Teacher Education and Leadership, Logan, Utah

Research responsibilities included collaborating with professors on various research projects in mathematics education on coding data, writing literature reviews, conducting research interviews, conducting data analyses, writing, and presenting at professional conferences. Teaching assistant responsibilities included teaching face-to-face Mathematics Methods for Elementary Teachers, mentoring pre-service teachers in practicum settings, and teaching online Masters-level Elementary Math Endorsement courses for in-service teachers.

PUBLIC SCHOOL TEACHING EXPERIENCE

Elementary School Teacher, Grade 3, all subjects (2014-2017) Wilson Elementary, Logan, Utah

Responsibilities included planning, designing and teaching curricula in all content areas from the Utah Core Standards for third grade. Classes ranged from 19-24 ethnically diverse students, including students with resource services in math and reading, students with speech difficulties, and students with ESL services. Worked with a Professional Learning Community (PLC) to design data driven instructional assessments and interventions in a Response to Intervention (RtI) model to meet the needs of all learners.

Elementary School Teacher, Grade 4, all subjects (2013-2014) Stansbury Park Elementary, Stansbury, Utah

Responsibilities included planning, designing and teaching curricula in all content areas from the Utah Core Standards for fourth grade. Instructed thirty ethnically diverse students, including students with resource services in math and reading, students with speech difficulties, and students with behavioral issues. Worked with a Professional Learning Community (PLC) to design data driven instructional assessments and interventions in a Response to Intervention (RtI) model to meet the needs of all learners.

AWARDS & PROFESSIONAL RECOGNITION

Presidential Doctoral Research Fellowship (\$20,000 annually). Graduate Research and Teaching Assistantship, Utah State University, Logan, UT (2018-2022).

Teacher of the Year Graduate Student Award (2021). Teacher Education and Leadership, Utah State University, Logan, UT.

Outstanding Paper Award (2018). Society for Information Technology and Teacher Education (SITE). Paper: Moyer-Packenham, P. S., Lommatsch, C., Litster, K., Ashby, M. J., & **Roxburgh, A.** (2018). The role of design features in the affordances of digital math games. In E. Langran & J. Borup (Eds.), *Proceedings of the Society for Information Technology and Teacher Education (SITE) International Conference* (pp. 465-473), Waynesville, NC: Association for the Advancement of Computing in Education (AACE).

School of Teacher Education and Leadership (TEAL) Scholarship (\$17,000). Graduate Research and Teaching Assistantship, Utah State University, Logan, UT (2017-2018).

RESEARCH

Research Interests:

- Socio-cultural and linguistic issues related to how students learn mathematics.
- How technology mediates mathematics learning.
- Elementary mathematics teacher education.

Research Projects:

Affordances of Virtual Manipulatives Grades 3-6 (2017 - 2022). Utah State University (with PI Dr. Patricia Moyer-Packenham and the Virtual Manipulatives Research Group). My role: analyze and code data (qualitatively code videos of interviews with interaction of mathematics iPad apps); develop and lead collaborative presentations and publications.

Fractions Group for Undergraduate Pre-Service Teachers (2019). Utah State University (With PI Dr. Diana Moss, Dr. Beth MacDonald, Dr. Claudia M. Bertolone-Smith, and Dr. Steven Boyce). My role: analyze and code data (qualitatively code videos of student explanations during a fraction lesson).

Early Count Grade 1 (2018-2019). Utah State University (with PI Dr. Beth MacDonald). My role: Witness early count activities with first grade students, help determine activities for students, analyze and code video data; collaborative presentations and publications.

PUBLICATIONS

JOURNAL ARTICLES (Refereed)

Moyer-Packenham, P.S., **Roxburgh, A.L**., Litster, K., & Kozlowski, J.S. (2021). Relationships between semiotic representational transformations and performance outcomes in digital math games. *Technology, Knowledge, and Learning*. https://doi.org/10.1007/s10758-021-09506-5

Bullock, E.P., **Roxburgh, A.,** Moyer-Packenham, P.S., & Bektas, E. (2021). Connecting the dots: Understanding the interrelated impact of type, quality and children's awareness of design features and mathematics content learning goals in digital math games and related learning outcomes. *Journal of Computer Assisted Learning*, 37(2), 557-586. https://doi.org/10.1111/jcal.12508

Moyer-Packenham, P. S., Ashby, M. J., Litster, K., **Roxburgh, A. L**., & Kozlowski, J. S. (2020). Examining how design features promote children's awareness of affordances in digital math games. *Journal of Computers in Mathematics and Science Teaching*, *39*(2), 169-180.

MacDonald, B., Hunt, J., Litster, K., **Roxburgh, A.,** & Leitch, M. (2020). Diego's number understanding development through subitizing and counting. *Investigations in Mathematics Learning*, *12*(4), 275-288. https://doi.org/10.1080/19477503.2020.1824287

Litster, K., Lommatsch, C. W., Novak, J. R., Moyer-Packenham, P. S., Harmon, M. J., **Roxburgh, A. L.,** & Bullock, E.P. (2020). The role of gender on the associations among children's attitudes, mathematics knowledge, digital game use, perceptions of affordances, and achievement. *International Journal of Science and Mathematics Education*. https://doi.org/10.1007/s10763-020-10111-8

Moyer-Packenham, P., Lommatsch, C. W., Litster, K., Ashby, M. J., **Roxburgh, A.,** Shumway, J., Speed, E., Covington, B., Hartmann, C. Clarke-Midura, J., Skaria, J., Westenshow, A., MacDonald, B., Symanzik, J., & Jordan, K. (2019) How design features in digital math games support learning and mathematics connections. *Computers in Human Behavior*, *91*, 316-332. https://doi.org/10.1016/j.chb.2018.09.036

BOOK CHAPTER

Moyer-Packenham, P. S., Litster, K., **Roxburgh, A. L.,** Kozlowski, J. S., & Ashby, M. J. (2019). Relationships between mathematical language, representation connections, and learning outcomes in digital games. In D. C. Gibson & M. N. Ochoa (Eds.), *Research highlights in technology and teacher education 2019* (pp. 55-64). Association for the Advancement of Computing in Education (AACE).

CONFERENCE PROCEEDINGS

Roxburgh, A. & Moyer-Packenham, P.S. (2022). Preservice teachers' beliefs and awareness about design features and academic language features when choosing and evaluating digital math games for English language learners. In E. Langran (Ed.), *Proceedings of Society for Information Technology & Teacher Education International Conference* (pp. 1549-1558). San Diego, Ca, United States: Association for the Advancement of Computing in Education (AACE).

Roxburgh, A., Moyer-Packenham, P.S., & Bullock, E. P. (2022). Relationships between students' use of gestures and learning outcomes in digital math games. In E. Langran (Ed.), *Proceedings of Society for Information Technology & Teacher Education International Conference* (pp. 528-532). San Diego, Ca, United States: Association for the Advancement of Computing in Education (AACE).

Roxburgh, A. L., Moyer-Packenham, P., & Bullock, E. (2021). Children's use of systemic functional linguistic metafunctions during digital math gameplay. In E. Langran & L. Archambault (Eds.), *Proceedings of Society for Information Technology & Teacher Education International Conference* (pp. 1164-1170). Online, United States: Association for the Advancement of Computing in Education (AACE).

Litster, K., Moyer-Packenham, P., Ashby, J., **Roxburgh, A.** & Kozlowski, J. (2019). Digital math games: Importance of strategy and perseverance on elementary children's learning

opportunities. In K. Graziano (Ed.), *Proceedings of Society for Information Technology & Teacher Education International Conference* (pp. 2157-2162). Las Vegas, NV, United States: Association for the Advancement of Computing in Education (AACE).

Moyer-Packenham, P., Ashby, M.J., Litster, K., **Roxburgh, A.** & Kozlowski, J.S. (2019). How design features promote children's awareness of affordances in digital math games. In K. Graziano (Ed.), *Proceedings of Society for Information Technology & Teacher Education International Conference* (pp. 2192-2200). Las Vegas, NV, United States: Association for the Advancement of Computing in Education (AACE).

Moyer-Packenham, P. S., Lommatsch, C., Litster, K., Ashby, M. J., & **Roxburgh, A.** (2018, March). The role of design features in the affordances of digital math games. In E. Langran & J. Borup (Eds.), *Proceedings of the Society for Information Technology and Teacher Education* (*SITE*) *International Conference* (pp. 465-473), Waynesville, NC: Association for the Advancement of Computing in Education (AACE). **OUTSTANDING PAPER AWARD**

Moyer-Packenham, P. S., Litster, K., Lommatsch, C., Ashby, M. J., & **Roxburgh, A**. (2018, March). Mediators of learning in game-based mathematics apps. In E. Langran & J. Borup (Eds.), *Proceedings of the Society for Information Technology and Teacher Education (SITE) International Conference* (pp. 454-464), Waynesville, NC: Association for the Advancement of Computing in Education (AACE).

MANUSCRUPTS IN PREPARATION

Roxburgh, A. Students' use of counting routines and number lines to build number sense.

Roxburgh, A. Linguistic diversity in digital math games: Critical review of the literature.

TEACHING

UNIVERSITY TEACHING

Utah State University, Logan, Utah (2017-2022) College of Education and Human Services

TEAL 6521/5521- Mathematics for Teaching K-8: Numbers and Operations (*Spring 2018, Spring 2020, Fall 2021, Fall 2022*)

Graduate course. This course, for K-8 teachers, will cover the content of Number and Operations to develop comprehensive understanding of our number system and relate its structure to computation, arithmetic, algebra, and problem solving. Online Course.

TEAL 6522/5522-Mathematics for Teaching K-8: Rational Numbers and Proportional Reasoning (*Spring 2018, Spring 2020, Fall 2021, Fall 2022*) Graduate course. To provide practicing teachers a deeper understanding of rational numbers, operations with rational umbers, and proportionality, and instructional

strategies to facilitate the instruction of this content for elementary students. Online course.

TEAL 6523/5523 - Mathematics for Teaching K-8: Algebraic Reasoning (*Spring 2018, Spring 2020, Fall 2021, Fall 2022*)

Graduate course. To provide practicing teachers a deeper understanding of algebraic expressions, equations, functions, real numbers, and instructional strategies to facilitate the instruction of this content for elementary students. Online Course.

TEAL 6524/5524 – Mathematics for Teaching K-8: Geometry and Measurement (*Spring 2018, Spring 2020, Fall 2021, Fall 2022*)

Graduate course. To provide practicing teachers a deeper understanding of the geometry and measurement context that exists in the state core and instructional strategies to facilitate the instruction of this content. Online Course.

TEAL 6525/5525- Mathematics for Teaching K-8: Data Analysis and Problem Solving (*Spring 2020, Fall 2021, Fall 2022*)

Graduate course. To provide practicing teachers a deeper understanding of probability and data representation and analysis. Online course.

TEAL 6551/5551 - Mathematics for Teaching K-8: Assessment and Intervention (*Spring 2018, Spring 2020, Fall 2021, Fall 2022*)

Graduate course. To provide practicing teachers a deeper understanding of the various types of assessment and their appropriate use for guiding instruction, intervention and evaluation of student learning. Online Course.

TEAL 6552- Mathematics Education Leadership Knowledge and Skills (*Spring 2020, Fall 2021, Fall 2022*)

Graduate course. To develop the following mathematics education leadership knowledge and skills: policy and curriculum issues; research informing instructional practice; implementation and evaluation of professional development; evaluation of educational structures that affect equity; and responsibilities of math coaches and mentors. Online course.

TEAL 6300/5560 - Special Topics: Elementary Mathematics Teaching Academy (*Spring 2018, Spring 2020, Fall 2021, Fall 2022*)

Graduate course. Field-based program focusing upon characteristics of effective teaching methodologies, teaching performance, curriculum decision making, value guidelines, and the characteristics of the learner. Online course.

EDUC 4061 – Teaching Elementary School Mathematics I: Rational Numbers, Operations, and Proportional Reasoning (*Fall 2019, Fall 2020, Spring 2021, Spring 2022, Fall 2022*)

Undergraduate Course. Develop pedagogical content knowledge in rational number, operations, and proportional reasoning for teaching grades preschool to grade 6.

Understanding characteristics of instruction, assessments, and intervention are considered critically. Online Course.

EDUC 4062 - Teaching Elementary School Mathematics II: Number, Operations, and Algebraic Reasoning (*Fall 2017, Fall 2018, Spring 2019, Spring 2022*) Undergraduate Course. Development of pedagogical content knowledge in number, operations, and algebraic reasoning for teaching grades preschool to grade 6. Methods for designing and implementing mathematics instruction, assessment, remediation, and intervention will be applied in a field-based placement. Face-to-Face Course combined with Practicum Supervision.

ITLS 5500- Integration and Innovation of Technology in Education (*Fall 2018*) Undergraduate course. Research and practice means to creatively and effectively integrate technology into teaching and learning, based on local and national standards. Develop methods and resources to implement standards using technologies pertinent to student's field of study. Produce a portfolio of artifacts. Online Course.

University of Northern Colorado, Greeley, Colorado (2022) College of Education and Behavioral Sciences

EDEL 101- Elementary Teaching as a Profession (Fall 2022) Undergraduate course. Introduces the Interdisciplinary Studies Elementary Teaching major (ISET) and the Elementary Professional Teacher Education Program (PTEP). Examines professional expectations of today's elementary teachers and how UNC coursework prepares candidates for teaching. Face-to-Face Course.

CURRICULUM DEVELOPMENT

Utah State University, Logan, Utah (Summer 2019) College of Education and Human Services

TEAL 6551/TEPD 5551: Mathematics for Teaching K-8: Assessment and Intervention. Graduate course. To provide practicing teachers a deeper understanding of the various types of assessment and their appropriate use for guiding instruction, intervention and evaluation of student learning. Materials developed included readings, video lectures, application assignments, and assessments for online course delivery. Developed nine modules as equivalent to a 15-week 3-credit course.

GRANTS FUNDED

Travel Grant, Research and Graduate Studies, School of Teacher Education and Leadership (TEAL). (\$600). Presentation at the Society for Information Technology and Teacher Education (SITE). (2022) San Diego, California.

Travel Grant, Research and Graduate Studies. (\$500). Presentation at the National Council of Teachers of Mathematics (NCTM). (2019) San Diego, California.

Travel Grant, Research and Graduate Studies, School of Teacher Education and Leadership (TEAL). (\$600). Presentation at Society For Information Technology and Teacher Education (SITE). (2018) Washington, D.C.

Battle of the Books (\$400). Logan City School District. The purpose of this grant was to buy books for third grade students to participate in a district book battle during the 2016-2017 school year. This was intended to motivate students to read and help build comprehension skills.

PRESENTATIONS

International and National Presentations

Roxburgh, A. & Moyer-Packenham, P.S. (2022, April). *Preservice Teachers' Beliefs and Awareness about Design Features and Academic Language Features when Choosing and Evaluating Digital Math Games for English Language Learners.* 33rd annual conference of the Society for Information Technology and Teacher Education (SITE), San Diego, CA.

Roxburgh, A., Moyer-Packenham, P.S., & Bullock, E. P. (2022, April). *Relationships Between Students' Use of Gestures and Learning Outcomes in Digital Math Games.* 33rd annual conference of the Society for Information Technology and Teacher Education (SITE), San Diego, CA.

Roxburgh, A., Moyer-Packenham, P. & Bullock, E. (2021, April). *Children's use of systemic functional linguistic metafunctions during digital math gameplay*. Virtual Research Paper Presentation, 31st Society for Information Technology & Teacher Education International Conference.

Moyer-Packenham, P., S., **Roxburgh, A.,** Litster, K., & Kozloweski, J. S. (2020, April). *Students Connections Among Semiotic Representation in Digital Games and Their Influence on Mathematics Learning*. Research Paper Presentation, American Educational Research Association (AERA) Annual Meeting, San Francisco, CA. [Conference Cancelled].

Bullock, E. K., **Roxburgh A.**, Moyer-Packenham, P. S. (2020, April). *The Importance of Quality of Design Features in Digital Math Games*. Research Paper Presentation , American Educational Research Association (AERA) Annual Meeting, San Francisco, CA. [Conference Cancelled].

Moyer-Packenham, P. S., **Roxburgh, A. L.**, & Kozlowski, J. S. (2019, November). *Students' Uses of Mathematical Representations and Their Learning Outcomes in Digital Games.* Research Paper Presentation, School Science and Mathematics Association (SSMA) Convention, Salt Lake City, UT. Bullock, E.P., **Roxburgh, A.,** Moyer-Packenham, P.S., & Bektas, E. (2019, November). *The Impact of High-Quality Features in Digital Math Games on Children's Learning*. School Paper Presentation, Science and Mathematics Association (SSMA) Convention, Salt Lake City, UT.

Kozlowski, J. S., Shumway, J., **Roxburgh, A. L.** (2019, October). *Adapting Textbook Lessons to Help Students Construct Mathematics and to Access Diverse Mathematical Knowledge*. Presentation, National Council of Teachers of Mathematics Research Conference (NCTM) Regional Conference and Exposition, Salt Lake City, UT.

MacDonald, B. L., Litster, K., & **Roxburgh**, A. (2019, October). *Students' Actions with Early Number to Guide Educators' Instruction*. Presentation, National Council of Teachers of Mathematics (NCTM) Regional Conference and Exposition, Salt Lake City, UT.

MacDonald, B. L., Urbanek-Carney, S., & **Roxburgh, A.** (2019, October). *Supporting Students with Severe Special Education Needs in Early Number Development*. Presentation, National Council of Teachers of Mathematics (NCTM) Regional Conference and Exposition, Salt Lake City, UT.

MacDonald, B. L., **Roxburgh, A.**, & Jenson, A. (2019, October). *Tasks Which Leverage Conceptual Number Understanding for Students Identified as Low-Achieving*. Presentation, National Council of Teachers of Mathematics (NCTM) Regional Conference and Exposition, Salt Lake City, UT.

Roxburgh, A. L., & Kozlowski, J. S. (2019, October). *Fostering Mathematical Discourse Through Inquiry-Based Tasks*. Presentation, National Council of Teachers of Mathematics Research Conference (NCTM) Regional Conference and Exposition, Salt Lake City, UT.

MacDonald, B. L., Urbanek-Carney, S., & **Roxburgh, A.** (2019, April). *Supporting Students with Severe Special Education Needs in Early Number Development*. Presentation, National Council of Teachers of Mathematics (NCTM) Annual Conference and Exposition, San Diego, CA.

Hackenberg, A. J., Jones, R., Hunt, J. H., Silva, J., MacDonald, B. L., & **Roxburgh, A.** (2019, April). *Differentiating Instruction in Mathematics Education*. Research Symposium at the Presentation, Annual National Council of Teachers of Mathematics Research Conference (NCTM-R), San Diego, CA.

Moyer-Packenham, P. S., Litster, K., Ashby, M. J., **Roxburgh, A. L.,** & Bullock, E. P. (2019, April). *Design Features of Digital Math Games through the Lens of ACAT*. Research Paper Presentation, National Council of Teachers of Mathematics Research Conference (NCTM-R), San Diego, CA.

Litster, K., Moyer-Packenham, P. S., Ashby, M. J., **Roxburgh, A. L.**, & Kozlowski, J. S. (2019, March). *Digital Math Games: Importance of Strategy and Perseverance on Elementary Children's Learning Opportunities*. Research Paper Presentation, Society for Information Technology and Teacher Education (SITE), Las Vegas, NV.

Moyer-Packenham, P. S., Ashby, M. J., Litster, K., **Roxburgh, A. L.,** & Kozlowski, J. S. (2019, March). *How Design Features Promote Children's Awareness of Affordances in Digital Math Games*. Research Paper Presentation, Society for Information Technology and Teacher Education (SITE), Las Vegas, NV.

Moyer-Packenham, P. S., Litster, K., **Roxburgh, A. L.**, Kozlowski, J. S., & Ashby, M. J. (2019, March). *Relationships between Mathematical Language, Representation Connections, and Learning Outcomes in Digital Math Games*. Research Paper Presentation, Society for Information Technology and Teacher Education (SITE), Las Vegas, NV.

Moyer-Packenham, P. S., Litster, K., Lommatsch, C., Ashby, M. J., & **Roxburgh, A**. (2018, March). *Mediators of Learning in Game-Based Mathematics Apps*. Research Paper Presentation, 29th annual conference of the Society for Information Technology and Teacher Education (SITE), Washington D.C.

Moyer-Packenham, P. S., Lommatsch, C., Litster, K., Ashby, M. J., & **Roxburgh, A**. (2018, March). *The Role of Design Features in the Affordances of Digital Math Games*. Research Paper Presentation, 29th annual conference of the Society for Information Technology and Teacher Education (SITE), Washington D.C.

State Presentations

Roxburgh, A. & Jensen, A. (2018, October). *Affordances in Early Conceptual Understanding Number Tasks in Grade 1 for Low-Achieving Students*. Presentation, Annual Utah Council of Teachers of Mathematics (UCTM) Conference, Draper, UT.

Local Presentations

Roxburgh, A. (2021, April). *How Preservice Teachers' Awareness of Design Features and Academic Language Features Relates to Choosing and Evaluating Digital Math Games for English Language Learners.* Virtual Research Presentation, SRS Student Research Symposium, Utah State University, Logan, UT.

Roxburgh, A. (2020, April). A Systemic Functional Linguistic Approach to Examining Children's Language use in Digital Math Games. Virtual presentation. SRS Student Research Symposium, Utah State University, Logan, UT.

Roxburgh, A. (2019, April). *Preliminary Findings on the Role of Feedback Design Features on Grade 4 Student Learning Outcomes and Student Awareness of Feedback Features.* Poster Presentation, SRS Student Research Symposium, Utah State University, Logan, UT.

Roxburgh, A. (2018, April). *Preliminary Findings on the Role of App Design on Grade 4 Student Success and Learning*. Poster Presentation, SRS Student Research Symposium, Utah State University, Logan, UT. Litster, K., MacDonald, B. L., & **Roxburgh, A**. (2018, August).*Virtual Cookies: Online Digital Resources and Strategies to Enhance In-Class and Distance Learning Experiences and Promote an Active Learning Environment*. Presentation, Together We Teach Conference, Utah State University, Logan, UT.

CONSULTING

Utah State Board of Education (USBE)

Facilitator, Mathematics Summer Professional Learning- What the Tech (2019, May, June) Responsibilities include presenting material for technology incorporation in mathematics classrooms for secondary and elementary school practicing teachers, supply teachers with physical and online resources, and teach them the Triple E Framework.

SERVICE

Institutional Leadership & Service, Utah State University

Application Reviewer, Undergraduate Research Fellow (April 2021)

Responsibilities included scoring applications for the Undergraduate Research Fellow award.

Peer Reviewer, COMD 2600 (December 2019)

Responsibilities include using a rubric to score an online course by reviewing content in each module and providing feedback on ways to improve the course.

Judge, Fall Undergraduate Student Research Symposium (November 2018)

Responsibilities include scoring poster presentations of five undergraduate students, scoring one oral presentation, and providing feedback on presentation delivery.

Reviewer, Undergraduate Research and Creative Opportunities (URCO) Grant (November 2018)

Responsibilities include scoring grant proposals and providing feedback to undergraduate students.

STATE SERVICES

Granite School District, Utah. Application Reviewer, Utah PTA/PTSA Student Scholarship Cyprus High School (May 2021; May 2022)

Responsibilities included reviewing high school student essays for the PTA/PTSA student scholarship.

CONTINUOUS LEARNING & SELF-DEVELOPMENT

PROFESSIONAL AFFILIATIONS

American Educational Research Association (Since 2018) National Council of Teachers of Mathematics (Since 2018) School Science and Mathematics Association (Since 2019) Society for Information Technology and Teacher Education (Since 2019)

CONTINUING EDUCATION UNITS

Reading Endorsement, Northern Utah Curriculum Consortium (Spring, 2017). Intro R for Social Researchers (Fall, 2018) Intermediate R (Fall, 2018)