

# Charity Cayton

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## Education

PhD in Mathematics Education, North Carolina State University, December 2012

Dissertation Title: Teachers' Implementation of Pre-constructed Dynamic Geometry Tasks in Technology-Intensive Algebra 1 Classrooms

Advisor: Dr. Karen Hollebrands

MAEd in Mathematics Education, East Carolina University, May 2007

Thesis Title: Assessing Connections between Multiple Representations of Linear Functions

Advisor: Dr. Robin Angotti (Formerly Rider)

BS Mathematics, East Carolina University, May 1996

## Licensure

North Carolina Teaching License, Secondary Mathematics

National Board Certification, Adolescent Young Adult Mathematics (2001-2021)

## Professional Experience

### Post-Secondary Experience

*Associate Professor, East Carolina University*

*August 2019-Present*

*Assistant Professor, East Carolina University*

*August 2013-July 2019*

Secondary Mathematics Education

- Teaching: MATE 1267 Functional Relationships; MATE 2129 Investigations into Concepts in Elementary Mathematics; MATE 3050 Mathematics and Methods for Grades K-2; MATE 3051 Mathematics Field Experience in Grades K-2; MATE 3060 Mathematics and Methods for Grades 3-6; MATE 3300 Geometry for High School Teachers; MATE 3523 Topics in High School Mathematics; MATE 4002 Mathematics Curriculum, Instruction, and Assessment in Grades 6-12; MATE 4324 Supervision of Interns; MATE 4503 Honors College Thesis Research; MATE 6323 Issues and Trends in Mathematics Education; MATE 6331 Reasoning with Number and Algebra in the Middle Grades; MATE 6341 Teaching & Learning Geometry for Middle Grades Teachers; MATE 6351 Data & Probability for Middle Grades Teachers; MATE 6400 Capstone Project in Mathematics Education; LEED 8035 Doctoral Seminar in Educational Leadership; LEED 8440 Applied Research Design in Educational Leadership; LEED 8055 Doctoral Seminar in Curriculum and Instruction
- Service: UNC System Community of Practice for Clinical Experiences (Co-Chair); Faculty Senator COE; Faculty Senate Agenda Committee; Teaching Grants Committee; Faculty Research Advisory Council; Council for Educator Preparation (CEP); CEP Vice Chair; CEP Admissions and Retention Sub-Committee (Chair); CEP Policy Committee; College of Education Co-Planning/Co-Teaching Committee; Co-Faculty Advisor Gamma Student Chapter of NCCTM; MSITE Curriculum Committee (Secretary); MSITE Bulletin Board and Display Case Committee (Chair); Mathematics Teacher Education Partnership; Mathematics Teacher Education Partnership Clinical Experiences Research Action Cluster (Lead Co-Planning/Co-Teaching); North Carolina Mathematics Teacher Education Partnership (Team Leader); NCCTM Vice President, Eastern Region for Colleges; NCCTM State Vice President for Colleges; NCCTM Eastern Region President; NCCTM Student Affiliate Committee (Chair)

### Professional Experience (cont.)

*Research Associate, North Carolina State University* August 2012-August 2013

Scaling Up STEM Learning with the Virtual Computing Lab, NSF Funded ITEST Grant

- Provide classroom level support for participating teachers
- Conduct classroom observations and process video from observations
- Coordinate data collection, processing, organization, and inventory
- Research teachers' use of dynamic geometry software in Algebra and Geometry classrooms
- Assist in writing final project report to be submitted to NSF
- Assist in writing new grant proposal

*Graduate Research Assistant, North Carolina State University* January 2010-August 2012

Scaling Up STEM Learning with the Virtual Computing Lab, NSF Funded ITEST Grant

- Co-planned/co-taught four, week-long summer institutes focused on using dynamic mathematics software in Algebra and Geometry 1:1 laptop classrooms
- Moderated online professional development
- Provided classroom level support for participating teachers
- Conducted classroom observations and process video from observations
- Researched teachers' use of dynamic geometry software in Algebra and Geometry classrooms

*Adjunct Mathematics Education Instructor, East Carolina University*

MATE 6341 Teaching and Learning Geometry

*Spring 2013*

MATE 3067 Algebra: Number and Foundations

*Spring 2008*

*Graduate Teaching Assistant, North Carolina State University*

EMS 203 Introduction to Teaching Mathematics

August 2008-December 2009

EMS 480/580 Technology in Mathematics Education

January-May 2010

*Student Teacher Supervisor, North Carolina State University* August 2008-December 2009

Supervised middle and high school student teachers in Wake County

*Professional Development Instructor, North Carolina State University*

STEM Career Awareness Technology Learning Workshop, Five days, 40 teachers, Weldon Middle School, Halifax, NC. August 2011

SMART for Teachers Technology Learning Workshop, Four days, 30 teachers, Chowan Middle School, Tyner, NC. June 2010.

SMART for Teachers Technology Learning Workshop, Five days, 30 teachers, Bertie Middle School, Windsor, NC. June 2009.

*Mathematics Instructor, Pitt Community College*

*Summer 2009*

MAT 161 College Algebra

## Professional Experience (cont.)

### High School

*Mathematics Teacher, Pitt County Schools, DH Conley High School* 1996-2006, 2007-2008

Courses Taught: Intro to Mathematics, Algebra I, Geometry, Algebra II, Discrete Math, AP Calculus AB/BC

Other Responsibilities: Mentor for Initially Licensed Teachers, Clinical Teacher for Interns, Mu Alpha Theta Mathematics Honor Society Sponsor, Comprehensive Math Team Coach

*Mathematics Teacher, Guilford County Schools, Northwest Guilford High School* 2006-2007

Courses Taught: Algebra I, AP Statistics

### Curriculum Evaluator/Author

- (2004) Cisco Learning Systems. Evaluated and wrote Calculus curriculum materials as part of a joint US/Jordanian team whose task was to evaluate and revise national Jordanian mathematics curriculum
- (2002) Math and Technology Resource Center, East Carolina University. Wrote online lessons for teacher training in Algebra strand of Principles and Standards for School Mathematics

### Awards

*ECU Outstanding Faculty for 2021*

*March 2022*

Annual recognition highlighting ECU faculty for outstanding research, scholarly, and artistic contributions. One of three selected from the College of Education.

*ECU Alumni Association Outstanding Teaching Awards (Finalist)*

*Dec 2021*

College of Education representative – will be awarded at the teaching awards ceremony at the close of the spring 2022 semester. Three such awards are presented.

*National Technology Leadership Initiative*

*February 2021*

The NTLI Award recognizes exemplary presentations related to integration of technology in core content areas at the annual meetings of each participating association. This award was presented at the Association of Mathematics Teacher Educators Conference, and the paper will be forwarded and recommended for publication in the CITE journal by the AMTE Technology committee.

*East Carolina University College of Education Outstanding Graduate (Nominee) January 2018*

The College of Education at ECU publication that featured the best and brightest graduates across an array of program areas and disciplines to highlight the COE's impact on not only the region, but also the profession. Ten graduates were chosen from among the nominees.

*Scholarship, Teaching and Research Fellow (STaR Fellow)*

*December 2013*

Accepted to 5<sup>th</sup> cohort of Service, Teaching and Research (STaR) Program. Thirty fellows selected nationwide per cohort for a 1 year induction program for early career mathematics educators working at institutions of higher education. The program was initiated through a grant from the National Science Foundation and included a 5-day summer institute, academic year networking via electronic means, and a follow-up session at the annual meeting of the Association of Mathematics Teacher Educators (AMTE).

### Awards (cont.)

- Provost Fellow, North Carolina State University* August 2008  
Award given to selected incoming graduate students that demonstrate high scholastic potential.
- State Finalist, Presidential Award for Excellence in Mathematics and Science Education* 2005  
National Science Foundation
- Katherine Hodgin Award for Teaching Excellence* July 2004  
Given to one teacher within 2-county service area exhibiting excellence, innovation, and professionalism
- University Award (Currently Robert H. Wright Leadership Award)* May 1996  
East Carolina University's most prestigious award for undergraduate seniors; presented by the ECU Alumni Association during annual spring commencement exercises.

### Grants

- Cayton, C.,** Grady, M., & Vance-Chalcraft, H. (2023-2028, \$1,449,713). **[Principal Investigator]** *Using a Microcredential Model to Prepare Secondary Mathematics and Science Teachers to Meet the Needs of Rural, High-needs Districts*. Robert Noyce Scholarship Program: National Science Foundation.
- Lovett, J., McCulloch, A., **Cayton, C.,** & Lee H. (2018-2024; \$1,778,285). **[Principal Investigator, ECU]** *Preparing to Teach Mathematics with Technology - Examining Student Practice [PTMT-ESP]*. Improving Undergraduate STEM Education: National Science Foundation.
- Militello, M., Anneta, L. A., **Cayton, C.** (2018-2022; \$6,680,687). **[Co-Principal Investigator]** *Project I4 — Innovate, Inquire, Iterate, and Impact: Igniting the Power of Network Improvement Communities to Enhance Professional Learning for Educational Leaders*. Supporting Effective Educator Development Grant Program: US Department of Education.
- Thompson, A., **Cayton, C.,** Jolls, C. L., Doster, E., & Vance-Chalcraft, H. (2017-2023; \$1,192,468). **[Co-Principal Investigator]** *Investigating teachers' use of tasks, discourse, and technology in high-need school districts*. Robert Noyce Scholarship Program: National Science Foundation.
- Strutchens, M. E., Sears, R., & Gobstein, H. (2017-2023; \$1,600,000). **[Consultant]** *Collaborative Research: Attaining Excellence in Secondary Mathematics Clinical Experiences with a Lens on Equity*. Improving Undergraduate STEM Education: National Science foundation.
- Cayton, C.** (2013-2016; \$33,357). **[Principal Investigator]** *Pursuing teaching excellence in secondary mathematics classrooms: Tasks, technology, discourse, and the edTPA*. Research Start-up: East Carolina University, Greenville, NC.

## Publications

### Peer Reviewed Journal Articles

\*graduate student, \*\*undergraduate student, \*\*\*classroom teacher

- Moye, M.\*\*\*, Baker, R.\*\*\*, Koen, A.\*\*\*, **Cayton, C.**, and Grady, M. (2023). Reflections on co-teaching with interns in high school. *Centroid*, 48(2), 4-9.
- Cayton, C.** & Chandler, K. (2022). A learning sequence for developing technology tasks that support students' mathematical thinking: A replication study". *International Journal of Mathematical Education in Science and Technology*.  
<https://doi.org/10.1080/0020739X.2022.2139776>
- Dick, L. K., Lovett, J. N., McCulloch, A. W., **Cayton, C.**, Bailey, N. G., & Yalman Ozen, D. (2022). Preservice teacher noticing of students' mathematical thinking in a technology-mediated learning environment. *The International Journal for Technology in Mathematics Education*, 29(3), 129-142. DOI: 10.1564/tme\_v29.3.02
- Bailey, N. G.\*, Yalman Ozen, D.\*, Lovett, J. N., McCulloch, A. W., Dick, L. & **Cayton, C.** (2022). Using a framework to develop preservice teacher noticing of students' mathematical thinking within technology-mediated learning. *Contemporary Issues in Technology and Teacher Education*, 22(3).
- McCulloch, A. W., Lovett, J. N., **Cayton, C.**, & Dick, L. K. (2021). Positioning students to explore math with technology. *Mathematics Teacher: Learning and Teaching PK-12*, 114(10), 738-749. [Note: Front & Center Article for Special issue on Digital Equity and the Digital Divide.
- McCulloch, A. W., Leatham, K. R., Bailey, N. G.\*, **Cayton, C.**, Fye, K.\*, & Lovett, J. N. (2021). Theoretically framing the pedagogy of learning to teach mathematics with technology. *Contemporary Issues in Technology and Teacher Education*, 21(2).
- Bailey, N. G.\*, Yalman Ozen, D.\*, Lovett, J., McCulloch, A. W., & **Cayton, C.** (2021). Parameters, sliders, marble slides, oh my! *Mathematics Teacher: Learning and Teaching PK-12*, 115(5), 386-394.
- Lovett, J. N., McCulloch, A. W., Dick, L. K., & **Cayton, C.** (2020). Design principles for examining student practices in a technology-mediated environment. *Mathematics Teacher Educator*, 8(3), 120-133. NCTM.
- Sherman, M. F., **Cayton, C.**, Walkington, C., & Funsch, A.\* (2020). An analysis of secondary mathematics textbooks with regard to technology integration. *Journal for Research in Mathematics Education*, 51(3), 361-374. NCTM.
- Grady, M., **Cayton, C.**, Preston, R. V., & Sinicrope, R. (2019). Co-planning strategies for mentor teachers and interns. *Theory and Practice in Rural Education*, 9(2), 79-91.  
<https://doi.org/10.3776/tpre.2019.v9n2p79-91>
- Grady, M., **Cayton, C.**, Middleton, C., Sinicrope, R., Preston, R., Schwartz, C., Adu-Gyamfi, K., & Hill, D. B. (2017). Literate mathematics educator's quiz: Updated for a new century. *Centroid*, 43(1), 3-6.

### Publications (cont.)

Sherman, M. F., **Cayton, C.**, & Chandler, K.\* (2017). Supporting teachers using appropriate tools strategically: A learning sequence for creating technology tasks that support student thinking. *Mathematics Teacher Educator*, 5(2), 122-134.

**Cayton, C.**, Hollebrands, K., Okumuş S., & Boehm, E. (2015). Pivotal teaching moments in technology-intensive secondary geometry classrooms. *Journal of Mathematics Teacher Education*, 20(1), 75-100.

Sherman, M. F. & **Cayton, C.** (2015). Using appropriate tools strategically for instruction. *Mathematics Teacher*, 109(4), 306-310.

### Book Chapters

**Cayton, C.** & Grady, M. (Accepted). The use of co-planning to support equitable learning experiences during student teaching. In C. Tschida, E. Fogarty, K. Cuthrell, J. Stapleton, D. Lys, & A. Bullock (Eds.) *Co-Teaching in Teacher Education: Centering Equity*.

Lovett, J. N., McCulloch, A. W., Lee, H. S., Hollebrands, K. F., **Cayton, C.**, & Dick, L. K. (Accepted). Preparing secondary prospective teachers to teach mathematics with technology. Book chapter for the forthcoming AMTE Professional Book Series – *Reflection on Past, Present, and Future: Paving the Way for the Future of Mathematics Teacher Education*.

Sears, R., Brosnan, P., Gainsburg, J., Oloff-Lewis, J., Stone, J., Spencer, C., Riggs, L., Biagetti, S., **Cayton, C.**, Grady, M., Junor Clarke, P., & Andreason, J. (2017). Using improvement science to transform clinical experiences with co-teaching strategies. In L. West & M. Boston (Eds.), *Annual Perspectives in Mathematics Education 2017: Reflective and Collaborative Processes to Improve Mathematics Teaching* (pp. 265-273). Reston, VA: National Council Teachers of Mathematics.

Sherman, M. F., James, C. M., Hillen, A., & **Cayton, C.** (2014). Using dynamic geometry software to engage students in the standards for mathematical practice: The case of Ms. Lowe. In D. Polly (Ed.), *Cases on Technology Integration in Mathematics Education* (pp. 227-256). Hershey, PA: IGI Global.

### Peer Reviewed Proceedings

\*graduate student, \*\*undergraduate student, \*\*\*classroom teacher

**Cayton, C.**, Yalman Ozen, D.\*, McCulloch, A. W., Fye, K.,\* Fletcher, S.\*, & Brown, A.\* (Under Review). Preservice teachers' anticipations on a technology-enhanced algebra task. Paper for *the 15<sup>th</sup> International Congress on Mathematical Education*.

Witt, N. Chandler, K., Suh, J., McCulloch, A. W., Hollebrands, K., **Cayton, C.**, & Davis, J. (Accepted; Oct 2023). Conceptualizing the role of technology in equitable mathematics classrooms. Working Group at *North American Chapter of the International Group for the Psychology of Mathematics Education*.

### Publications (cont.)

- Chandler, K. & **Cayton, C.** (2022). The adapted IGS framework: Designing Desmos Tasks. *Proceedings of forty-fourth annual meeting of the North American Chapter of the International Group for the Psychology of Mathematics Education*, (pp. 1950-1954). Middle Tennessee State University.
- Yalman Ozen, D.\*, Bailey, N. G.\*, Fletcher, S.\*, Sanei, H.\*, McCulloch, A.W., Lovett, J.N., & **Cayton, C.** (2021). Preservice secondary teachers' reasoning about static and dynamic representations of function. *Proceedings of the forty-third annual meeting of the North American Chapter of the International Group for the Psychology of Mathematics Education*, (pp. 1639-1648). Philadelphia, PA.
- Bailey, N. G.\*, Yalman-Ozen, D.\*, McCulloch, A. W., Dick, L., Lovett, J. N., & **Cayton, C.** (2021). AMTE's 2021 NTLI Fellowship: Using a framework to teach preservice mathematics teachers how to professionally notice within technology-mediated learning environments. In E. Langran & L. Archambault (Eds.), *Proceedings of the 32nd annual conference of the Society for Information Technology and Teacher Education* (pp. 1359-1368). Association for the Advancement of Computing in Education.
- Watson, L.\*, Lovett, J., McCulloch, A. W., Dick, L. K., & **Cayton, C.** (2019). Preservice teachers' approximations of practice: Planning for and practicing while class discussions. In S. Otten, A. G. Candela, Z. de Araujo, C. Haines, & C. Munter (Eds.), *Proceedings of the forty-first annual meeting of the North American Chapter of the International Group for the Psychology of Mathematics Education*, (pp.1372-1373). St. Louis, MO: University of Missouri.
- McCulloch, A. W., Lovett, J. N., **Cayton, C.**, Dick, L. K., & Lee, H. S. (2018). Design principles for the development of professional noticing of students' technological mathematical practices. In Hodges, T. E., Roy, G. J., & Tyminski, A. M. (Eds.) *Proceedings of the 40th Annual Meeting of the North American Chapter of the International Group for the Psychology of Mathematics Education* (pp. 1195-1202). Greenville, SC: University of South Carolina & Clemson University.
- Cayton, C.**, Sherman, M. F., Walkington, C., & Funsch, A.\* (2018). Technology integration in secondary mathematics textbooks. In Hodges, T. E., Roy, G. J., & Tyminski, A. M. (Eds.) *Proceedings of the 40th Annual Meeting of the North American Chapter of the International Group for the Psychology of Mathematics Education* (pp. 1253-1238). Greenville, SC: University of South Carolina & Clemson University.
- Grady, M., **Cayton, C.**, Preston, R. V., & Middleton, C. (2018). Co-planning with interns: Envisioning new ways to support intern development of effective lesson planning. In Hodges, T. E., Roy, G. J., & Tyminski, A. M. (Eds.) *Proceedings of the 40th Annual Meeting of the North American Chapter of the International Group for the Psychology of Mathematics Education* (pp. 743-746). Greenville, SC: University of South Carolina & Clemson University.

### Publications (cont.)

- Sherman, M. F., Wenaas, S.\*, **Cayton, C.**, & Funsch, A.\* (2018). Dynamic geometry software (DGS) tasks in secondary curricula. In Hodges, T. E., Roy, G. J., & Tyminski, A. M. (Eds.) *Proceedings of the 40th Annual Meeting of the North American Chapter of the International Group for the Psychology of Mathematics* (pg. 133). Greenville, SC: University of South Carolina & Clemson University.
- Sears, R., Grady, M., **Cayton, C.**, Brosnan, P., Ahmad, S.\*, & Castro-Minnehan, C.\* (2018). Implications of a co-planning and co-teaching professional development training for preservice teachers and collaborating teachers. *Proceedings of the Seventh Annual Mathematics Teacher Education Partnership Conference*. Washington, DC: Association of Public Land-grant Universities.
- Cayton, C.**, Grady, M., Preston, R., Sears, R., Oloff-Lewis, J., Brosnan, P. (2017). Improving pre-service secondary mathematics clinical experiences through co-planning and co-teaching. In E. Galindo & J. Newton, (Eds.), *Proceedings of the 39th Annual Meeting of the North American Chapter of the International Group for the Psychology of Mathematics Education* (pp. 1524-1532). Indianapolis, IN: Hoosier Association of Mathematics Teacher Educators.
- Sears, R., Brosnan, P., Oloff-Lewis, J., Gainsburg, J., Stone, J., Biagetti, S., **Cayton, C.**, Grady, M., Spencer, C., Riggs, L., & Junor Clarke, P. (2017). Co-teaching mathematics: A shift in paradigm to promote student success. *Proceedings for the Hawaii International Conference on Education*. Honolulu, HI.
- Grady, M., **Cayton, C.**, Sinicrope, R., Preston, R. & Funsch, A.\* (2016). Shifting paradigms for pre-service teachers' internship experiences: Co-teaching as a model for relationships. In M. B. Wood, E. E. Turner, M. Civil, & J. A. Eli (Eds.), *Proceedings of the 38th Annual Meeting of the North American Chapter of the International Group for the Psychology of Mathematics Education* (pp. 869-872). Tucson, AZ: The University of Arizona.
- Sears, R., Brosnan, P., Grady, M., **Cayton, C.**, Oloff-Lewis, J., Biagetti, S., Stone, J., Andreasen, J., Maynor, J., Hollebrands, K., Spencer, C., Riggs, L., & Gainsburg, J. (2016). A collaborative effort to examine co-planning and co-teaching during clinical experiences. *Proceedings of the 13th International Congress on Mathematical Education (ICME-13)*. Hamburg, Germany.
- Cayton, C.**, Grady, M., Preston, R., & Sinicrope, R. (2016). Co-Planning strategies to support intern development. In Lawler, B. R., Ronau, R. N., & Mohr-Schroeder, M. J. (Eds.), *Proceedings of the Fifth Annual Mathematics Teacher Education Partnership Conference* (pp. 150-155). Washington, DC: Association of Public Land-grant Universities.
- Sherman, M. F., **Cayton, C.**, & Chandler, K.\* (2015). Supporting teachers using appropriate tools strategically: A practical framework for selecting and revising DGS Tasks. In Bartell, T. G., Bieda, K. N., Putnam, R. T., Bradfield, K., & Dominguez, H. (Eds.), *Proceedings of the 37th annual meeting of the North American Chapter of the International Group for the Psychology of Mathematics Education* (pp. 928-931). East Lansing, MI: Michigan State University. East Lansing, MI.



### Publications (cont.)

- Cayton, C.** (2013). Teachers' implementation of pre-constructed dynamic geometry tasks in technology-intensive Algebra 1 classrooms. In Martinez, M. & Castro Superfine, A (Eds.), *Proceedings of the 35th annual meeting of the North American Chapter of the International Group for the Psychology of Mathematics Education* (pp. 1037-1040). Chicago, IL: University of Illinois at Chicago.
- Hollebrands, K., **Cayton, C.**, & Boehm, E. (2013). Types of questions posed during pivotal teaching moments in a technology-intensive secondary geometry classroom. In Martinez, M. & Castro Superfine, A (Eds.), *Proceedings of the 35th annual meeting of the North American Chapter of the International Group for the Psychology of Mathematics Education* (pp. 1173-1176). Chicago, IL: University of Illinois at Chicago.
- Hollebrands, K., **Cayton, C.**, & Boehm, E. (2013). Pivotal teaching moments in a technology-intensive secondary geometry classroom. In A. M. Lindmeier & A. Heinze (Eds.), *Proceedings for the 37th Conference of the International Group for the Psychology of Mathematics Education* (Vol. 3, pp. 73-80). Kiel, Germany.
- Cayton, C.** (2012). Examining the cognitive demand of tasks in three technology-intensive high school algebra 1 classrooms. In J. J. Lo & L. Van Zoest (Eds.), *Proceedings for the 34th Annual Meeting of the North American Chapter of the International Group for the Psychology of Mathematics Education* (pp. 865-868). Kalamazoo, MI: Western Michigan University.
- Hollebrands, K., **Cayton, C.**, & Patterson, L. (2011). Characterizing discourse in two technology-intensive high school geometry classrooms. In Wiest, L. R., & T. Lamberg (Eds.), *Proceedings for the 33rd Annual Meeting of the North American Chapter of the International Group for the Psychology of Mathematics Education* (pp. 1723-1731). Reno, NV: University of Nevada, Reno.
- Cayton, C.** (2004). Fifteen years later: Multiple representations in upper-level high school mathematics. In D. McDougall & J. Ross (Eds.), *Proceedings of the 26th Annual Meeting of the North American Chapter of the International Group for the Psychology of Mathematics Education* (p. 315). Toronto, Ontario.

### Presentations

#### *Invited*

- Cayton, C.** & Walkington, C. (2021). Analysis of secondary mathematics textbooks with regard to technology integration. Invited speaker for *Mathematics Curriculum in Kindergarten–Grade 14, Miniature Open Online Seminar*.
- McCulloch, A. W., Lovett, J. N., Dick, L. K. & **Cayton, C.** (2021). Positioning students to explore math with technology. Invited webinar for *Mathematics Teacher: Learning and Teaching PK-12*.
- Lovett, J. N., McCulloch, A. W., Dick, L. K. & **Cayton, C.** (2020). Discussing design principles for examining student practices in a technology-mediated environment. Invited presentation for Episode 18 of the *Mathematics Teacher Educator Podcast*.

### **Presentations (cont.)**

McCulloch, A. W., Lovett, J. N., & **Cayton, C.** (2020). Design principles for examining student practices in a technology-mediated environment. Invited presentation for the *Wisconsin affiliate of the Association of Mathematics Teacher Educators*.

#### **International**

**Cayton, C.**, Yalman Ozen, D.\*, McCulloch, A. W., Fye, K.\*, Fletcher, S.\*, & Brown, A.\* (Under Review). Preservice teachers' anticipations on a technology-enhanced algebra task. Paper for *the 15<sup>th</sup> International Congress on Mathematical Education*.

Witt, N. Chandler, K., Suh, J., McCulloch, A. W., Hollebrands, K., **Cayton, C.**, & Davis, J. (Accepted; Oct 2023). Conceptualizing the role of technology in equitable mathematics classrooms. Working Group at *North American Chapter of the International Group for the Psychology of Mathematics Education*.

Chandler, K. & **Cayton, C.** (2022). *The adapted IGS Framework: Designing Desmos tasks*. North American Chapter of the International Group for the Psychology of Mathematics Education, Middle Tennessee State University.

Yalman-Ozen, D.\*, Bailey, N.G.\*, Fletcher, S.\*, Sanei, H.\*, McCulloch, A. W., Lovett, J. N., & **Cayton, C.** (2021). *Preservice secondary teachers' reasoning about static and dynamic representations of function*. North American Chapter of the International Group for the Psychology of Mathematics Education. Philadelphia, PA.

Watston, L.\*, Lovett, J. N., McCulloch, A. W., Dick, L., & **Cayton, C.** (2019). *Preservice teachers' approximations of practice: Planning for and practicing while class discussions*. Poster presented at the 41<sup>st</sup> Annual Meeting of the North American Chapter of the International Group for the Psychology of Mathematics Education. St. Louis, MO.

McCulloch, A. W., Lovett, J. N., **Cayton, C.**, Dick, L. K., & Lee, H. (2018). *Design principles for the development of professional noticing of students' technological mathematical practices*. Research report presented at the 40<sup>th</sup> Annual Meeting of the North American Chapter of the International Group for the Psychology of Mathematics Education. Greenville, SC: University of South Carolina & Clemson University.

**Cayton, C.**, Sherman, M. F., Walkington, C., & Funsch, A.\* (2018). *Technology integration in secondary mathematics textbooks*. Brief research report presented at the 40<sup>th</sup> Annual Meeting of the North American Chapter of the International Group for the Psychology of Mathematics Education. Greenville, SC: University of South Carolina & Clemson University.

Grady, M., **Cayton, C.**, Preston, R. V., & Middleton, C. (2018). *Co-planning with interns: Envisioning new ways to support intern development of effective lesson planning*. Brief research report presented at the 40<sup>th</sup> Annual Meeting of the North American Chapter of the International Group for the Psychology of Mathematics Education. Greenville, SC: University of South Carolina & Clemson University.

### **Presentations (cont.)**

- Sherman, M. F., Wenass, S.\*, **Cayton, C.**, & Funsch, A.\* (2018). *Dynamic geometry software (DGS) tasks in secondary curricula*. Poster presented at the 40th Annual Meeting of the North American Chapter of the International Group for the Psychology of Mathematics Education. Greenville, SC: University of South Carolina & Clemson University.
- Cayton, C.**, Grady, M., Preston, R., Sears, R., Brosnan, P., & Oloff-Lewis, J. (2017). *Improving pre-service secondary mathematics clinical experiences through co-planning and co-teaching*. Working group at the at the 39<sup>th</sup> Annual Meeting of the North American Chapter of the International Group for the Psychology of Mathematics Education. Indianapolis, IN.
- Sears, R., Brosnan, P., Oloff-Lewis, J., Gainsburg, J., Stone, J., Biagetti, S., **Cayton, C.**, Grady, M., Spencer, C., Riggs, L., & Junor Clarke, P. (2017). *Co-teaching mathematics: A shift in paradigm to promote student success*. Research report presentation at the Hawaii International Conference on Education. Honolulu, HI.
- Grady, M., **Cayton, C.**, Sinicrope, R., Preston, R., & Funsch, A.\* (2016). *Shifting paradigms for pre-service teachers' internship experiences: Co-teaching as a model for relationships*. Presentation at the 38<sup>th</sup> Annual Meeting of the North American Chapter of the International Group for the Psychology of Mathematics Education. Tuscon, AZ.
- Sears, R., Brosnan, P., Grady, M., **Cayton, C.**, Oloff-Lewis, J., ilitello, S., Stone, J., Andreasen, J., Maynor, J., Hollebrands, K., Spencer, C., Riggs, L., & Gainsburg, J. (2016). *A collaborative effort to examine co-planning and co-teaching during clinical experiences*. Research report presentation at the 13<sup>th</sup> International Congress on Mathematical Education (ICME-13). Hamburg, Germany.
- Sherman, M. F., **Cayton, C.** & Chandler, K.\* (2015). *Supporting teachers using appropriate tools strategically: A practical framework for selecting and revising DGS Tasks*. Brief Research Report Presented at the 37<sup>th</sup> Annual Meeting of the North American Chapter of the International Group for the Psychology of Mathematics Education. East Lansing, MI.
- Hollebrands, K., **Cayton, C.**, & Boehm, E. (2013). *Pivotal teaching moments in a technology-intensive secondary geometry classroom*. Research Report Presented at the 36<sup>th</sup> Conference of the International Group for the Psychology of Mathematics Education. Kiel, Germany.
- Cayton, C.** (2013). *Teachers' implementation of pre-constructed dynamic geometry tasks in technology-intensive algebra 1 classrooms*. Brief Research Report Presented at the 35<sup>th</sup> Annual Meeting of the North American Chapter of the International Group for the Psychology of Mathematics Education. Chicago, IL.
- Hollebrands, K., **Cayton, C.**, & Boehm, E. (2013). *Types of questions posed during pivotal teaching moments in a technology-intensive secondary geometry classroom*. Brief Research Report Presented at the 35<sup>th</sup> Annual Meeting of the North American Chapter of the International Group for the Psychology of Mathematics Education. Chicago, IL.

### **Presentations (cont.)**

Hollebrands, K., **Cayton, C.**, & Patterson, L. (2011). *Characterizing discourse in two technology-intensive high school geometry classrooms*. Brief research report presented at the 33<sup>rd</sup> Annual Meeting of the North American Chapter of the International Group for the Psychology of Mathematics Education. Reno, NV.

**Cayton, C.** (2004). *Fifteen years later: Multiple representations in upper level high school mathematics*. Poster presentation at the 26<sup>th</sup> Annual Meeting of the North American Chapter of the International Group for the Psychology of Mathematics Education. Toronto, Canada.

#### ***National***

Grady, M., Oloff-Lewis, J., & **Cayton, C.**, (2023). *Navigating the benefits & challenges of implementing co-planning & co-teaching in clinical experiences*. Individual session submitted to the Annual Meeting of the Association of Mathematics Teacher Educators. New Orleans, LA.

Brown, A.\*, **Cayton, C.**, & Thompson, A. (2023). *A five year look at Noyce Scholars task selection and rubric score on the edTPA*. Poster submitted to the Annual Meeting of the Association of Mathematics Teacher Educators. New Orleans, LA.

Lovett, J. N., McCulloch, A. W., **Cayton, C.**, Lee, H., Dick, L., Bailey\*, N. Fletcher\*, S., Yalman-Ozen, D.\*, Muthitu, P.\*, Brown\*, A. (2023). *Incorporating video cases into secondary methods, content, and technology courses*. Workshop submitted to the Annual Meeting of the Association of Mathematics Teacher Educators. New Orleans, LA.

Grady, M., **Cayton, C.**, Oloff-Lewis, J. (2022). *Examining the benefits and challenges of co-planning and co-teaching: A four-year, across-institutional study*. Session submitted to the 7<sup>th</sup> Annual Meeting for the National Association for Co-Teaching. St. Cloud, MN.

Thompson, T., & **Cayton, C.** (2022). *Teachers' perceptions of their experiences as Noyce Scholars at ECU*. Noyce Summit (Poster Presentation) Washington, DC.

Chandler, K. & **Cayton, C.** (2022). *Supporting students' thinking when using math action tools: A framework for evaluating and designing tasks*. Individual session presented at the 26<sup>th</sup> Annual Meeting of the Association of Mathematics Teacher Educators. Las Vegas, NV.

**Cayton, C.**, McCulloch, A.W., Lovett, J.N., Bailey, N.\*, Yalman-Ozen, D.\*, Fletcher, S.\*, & Sanei, H.\* (2022). *Leveraging the five practices and teacher noticing in preparing secondary teachers to teach with technology*. Individual session presented at the 26<sup>th</sup> Annual Meeting of the Association of Mathematics Teacher Educators. Las Vegas, NV.

Thompson, T., & **Cayton, C.** (2021). *Teachers' perceptions of their experiences as Noyce Scholars*. School Science and Mathematics Association Convention (Virtual Conference).

Bailey, N. G.\*, Yalman-Ozen, D.\*, McCulloch, A. W., Dick, L. K., Lovett, J. N., & **Cayton, C.** (2021). *Using a framework to teach preservice mathematics teachers how to professionally notice within technology-mediated learning environments*. Presentation at the 2021 Society for Information Technology and Teacher Education.

### **Presentations (cont.)**

- Grady, M. & **Cayton, C.** (2021). *“The best way to grow an intern”*: Co-planning in internship experiences. Individual session presented at the 25<sup>th</sup> Annual Meeting of the Association of Mathematics Teacher Educators.
- McCulloch, A. W., Lovett, J. N., Bailey, N. G.\*, Yalman-Ozen, D.\*, **Cayton, C.**, & Sanei, H.\* (2021). *Learning to teach mathematics with technology through engaging with video artifacts of secondary students’ work*. Workshop presented at the 25<sup>th</sup> Annual Meeting of the Association of Mathematics Teacher Educators.
- Bailey, N. G.\*, Yalman-Ozen, D.\*, McCulloch, A. W., Dick, L. K., Lovett, J., & **Cayton, C.** (2021) *Using a framework to teach preservice mathematics teachers how to professionally notice within technology mediated environments*. Individual session presented at the 25<sup>th</sup> Annual Meeting of the Association of Mathematics Teacher Educators. [NTLI Award]
- Tschida, C., Grady, M., & **Cayton, C.** (2020). *Poor planning means poor instruction: Strategies for co-planning during internship*. Presentation at the American Association of Colleges for Teacher Education. Atlanta, GA.
- Bailey, N.\*, McCulloch, A. W., Leatham, K. R., Lovett, J. N., **Cayton, C.**, Reed, S.\*, & Fye, K.\* (2020). *Theoretically framing the pedagogy of learning to teach mathematics with technology*. Individual session presented at the 24<sup>th</sup> Annual Meeting of the Association of Mathematics Teacher Educators. Phoenix, AZ.
- Thompson, T., **Cayton, C.**, Preston, R., Vance-Chalcraft, H., Jolls, C. & Doster, E. (2019). *Teachers’ perceptions of their experiences as Noyce Scholars at East Carolina University*. Presentation at the Annual School Science and Mathematics Convention, Salt Lake City, UT.
- Cayton, C.** & Grady, M. (2019). *Building a strong foundation using co-teaching to prepare teacher candidates for student teaching*. Invited speaker at the National Conference on Co-Teaching and Collaboration. Bloomington, MN.
- Preston, R., Thompson, T., **Cayton, C.**, Jolls, C., Vance Chalcraft, H., & Doster, E. (2019). *Teachers’ perceptions of their experiences as Noyce Scholars at East Carolina University*. Poster Session presented at the Noyce Summit, Washington, DC.
- Cayton, C.**, Grady, M., & Middleton, C. (2019). *Everyone wins! Co-planning with interns and colleagues to improve student learning*. Presentation at the National Council Teachers of Mathematics Annual Meeting & Exposition. San Diego, CA.
- Lovett, J. N., McCulloch, A. W., Dick, L. K., & **Cayton, C.** (2019). *Modules for examining students’ mathematical practices on technological tasks*. Individual session presented at the 23<sup>rd</sup> Annual Meeting of the Association of Mathematics Teacher Educators. Orlando, FL.
- Cayton, C.**, Sherman, M. F., Walkington, C. (2019). *Technology integration in secondary curricula*. Research report presented at the 23<sup>rd</sup> Annual Meeting of the Association of Mathematics Teacher Educators. Orlando, FL.

### **Presentations (cont.)**

- Grady, M., **Cayton, C.**, Moye, M.\*\*\*, & Preston, R. (2018). *Finding ways to talk: How interns and mentors are using co-planning strategies*. Research report presented at the Seventh Annual Mathematics Teacher Education Partnership Conference. Denver, CO.
- Sears, R., Grady, M., **Cayton, C.**, Brosnan, P., & Castro-Minnehan, C. (2018). *Implications of a co-planning and co-teaching professional development training for preservice teachers and collaborating teachers*. Research report presented at the Seventh Annual Mathematics Teacher Education Partnership Conference. Denver, CO.
- Cayton, C.**, Grady, M., Preston, R. V., & Sinicrope, R. (2017). *Co-planning strategies to support co-teaching*. National Conference on Co-Teaching and Collaboration. Bloomington, MN.
- Grady, M. & **Cayton, C.** (2017). *Co-planning to support intern development*. National Conference on Co-Teaching and Collaboration. Bloomington, MN.
- Cayton, C.**, Grady, M., & Baker, R.\*\*\* (2017). *Beginning with the end in mind: Embedding co-planning and co-teaching throughout secondary mathematics education*. Research report presented at Proceedings of the Sixth Annual Mathematics Teacher Education Partnership Conference. New Orleans, LA.
- Grady, M., **Cayton, C.**, & Baker, R.\*\*\* (2017). *How interns and mentors are using co-planning in clinical experiences*. Research report presented at the Sixth Annual Mathematics Teacher Education Partnership Conference. New Orleans, LA.
- Cayton, C.**, Sherman, M. F., Chandler, K., & Funsch, A.\* (2017). *Teachers' use of the IGS framework to design and implement tasks in high school mathematics*. Research report presented at the 21<sup>st</sup> Annual Meeting of the Association of Mathematics Teacher Educators. Orlando, FL.
- Grady, M., **Cayton, C.**, Preston, R., Sinicrope, R., & Funsch, A.\* (2017). *Co-planning strategies for mentors and interns*. Poster presented at the 21<sup>st</sup> Annual Meeting of the Association of Mathematics Teacher Educators. Orlando, FL.
- Cayton, C.**, Grady, M., Preston, R., Sinicrope, R. & Funsch, A.\* (2016). *Co-planning strategies for mentors and interns*. National Conference on Co-Teaching and Collaboration. Bloomington, MN.
- Sears, R., Grady, M., **Cayton, C.**, Brosnan, P., Sinicrope, R., Preston, R., & Strutchen, M. (2016). *Transforming clinical experiences for secondary mathematics with co-teaching strategies*. Presented at National Conference on Co-Teaching and Collaboration, Bloomington, MN.
- Sears, R., Oloff-Lewis, J., Biagetti, S., Brosnan, P., Stone, J., Grady, M., **Cayton, C.**, Andreason, J., Gainsburg, J., Spencer, C., Riggs, L., Junor Clarke, P. , & Cheng, I. (2016). *Measuring co-teaching at various stages of a plan-do-study-act cycle*. Presented at National Conference on Co-Teaching and Collaboration, Bloomington, MN.

### **Presentations (cont.)**

- Cayton, C.** & Grady, M. (2016). *Co-planning strategies to support intern development*. Research report presented at the Fifth Annual Mathematics Teacher Education Partnership Conference. Atlanta, GA.
- Sherman, M. F., **Cayton, C.** & Chandler, K.\* (2016). *Using DGS strategically to support students' thinking*. Interactive paper presented at the National Council Teachers of Mathematics Research Conference. San Francisco, CA.
- Cayton, C.**, Sherman, M. F., & Chandler, K.\* (2015). *Beyond bells and whistles: Evaluating and designing dynamic geometry tasks*. Workshop presented at the National Council Teachers of Mathematics Annual Meeting & Exposition. Boston, MA.
- Sherman, M. F., **Cayton, C.**, & Chandler, K.\* (2015). *Supporting teachers using appropriate tools strategically: A framework for evaluating and designing DGS tasks*. Research report presented at the 19<sup>th</sup> Annual Meeting of the Association of Mathematics Teacher Educators. Orlando, FL.
- Okumuş S., Hollebrands, K., & **Cayton, C.** (2015). *Teacher and student interactions in technology-intensive high school algebra classrooms*. Research symposium presented at the 19<sup>th</sup> Annual Meeting of the Association of Mathematics Teacher Educators. Orlando, FL.
- Cayton, C.**, Sherman, M. F., McCulloch, A., Nickell, J.\*, & Chandler, K.\* (2014). *Technological tasks & cognitive demand in secondary classrooms & teacher education*. Research symposium presented at the National Council Teachers of Mathematics Research Conference. New Orleans, LA.
- Hollebrands, K., **Cayton, C.**, Stockero, S., & Leatham, K. (2014). *Analyzing critical moments in high school mathematics classrooms*. Research Symposium presented at the National Council Teachers of Mathematics Research Conference. New Orleans, LA.
- Patterson, L., Wiebe, E., Okumuş S., **Cayton, C.**, & Hollebrands, K. (2014). *An investigation of teacher pedagogical strategies and student engagement in 1:1 laptop mathematics classrooms*. Presented at the AERA Annual Meeting. Philadelphia, PA.
- Cayton, C.** (2013). *Implementation of pre-constructed dynamic tasks in 1-1 algebra 1 classrooms*. Interactive paper session presented at the National Council Teachers of Mathematics Conference. Denver, CO.
- Cayton, C.** (2013). *Teacher's implementation of pre-constructed dynamic sketches in three technology-intensive high school algebra 1 classrooms*. Brief report presented at the 17<sup>th</sup> Annual Meeting of the Association of Mathematics Teacher Educators. Orlando, FL.
- Cayton, C.**, Hollebrands, K., & Wiebe, E. (2012). *Characterizing discourse in technology-intensive high school geometry classrooms*. Interactive paper session presented at the National Council Teachers of Mathematics Conference. Philadelphia, PA.

### **Presentations (cont.)**

Wiebe, E. N., Hollebrands, K., Patterson, L., & **Cayton, C.** (2012). *Ubiquitous computing environments and mathematics discourse: differential approaches by teachers*. Presented at the AERA Annual Meeting. Vancouver, BC.

#### **State**

**Cayton, C.**, Grady, M., Edgington, C., & Slate, E. (2022) *Who me? YES, YOU are a math teacher educator too!!* Session submitted to the State Conference of the North Carolina Council Teachers of Mathematics. Winston-Salem, NC.

Grady, M. & **Cayton, C.** (2022). *Co-Planning: "The best way to grow an intern"*. Session submitted to North Carolina Association of Colleges for Teacher Education. Raleigh, NC.

**Cayton, C.**, Callahan, J. A.\*\*, Chandler, K. (2019). *Is this vending machine functioning?!* Session presented at the State Conference of the North Carolina Council Teachers of Mathematics. Greensboro, NC.

**Cayton, C.**, Grady, M., & Reaper, J. (2019). *Co-planning: Working strategically with colleagues*. Workshop presented at the State Conference of the North Carolina Council Teachers of Mathematics. Greensboro, NC.

**Cayton, C.**, Grady, M., & Reaper, J. (2018). *Everyone wins! Co-planning with interns and colleagues to improve student learning*. Workshop presented at the State Conference of the North Carolina Council Teachers of Mathematics. Greensboro, NC.

**Cayton, C.**, Preston, R., & MAEd High School Graduate Students Cohort 2\*. (2018). *Cultivating connections between teaching, learning, and assessment*. Session presented at the State Conference of the North Carolina Council Teachers of Mathematics. Greensboro, NC.

**Cayton, C.**, Grady, M., & Baker, R.\*\*\* (2017). *Enhance rapport and learning through co-planning*. Workshop presented at the State Conference of the North Carolina Council Teachers of Mathematics. Greensboro, NC.

**Cayton, C.** (2016). *Encouraging student discourse*. Session presented at the Meredith Mathematics Leadership Institute. Raleigh, NC.

**Cayton, C.** & MAEd High School Graduate Students Cohort 1\*. (2015). *Principles to practice*. Session presented at the State Conference of the North Carolina Council Teachers of Mathematics. Greensboro, NC.

**Cayton, C.** & Preston, R. (2014). *Co-teaching in mathematics*. Workshop presented at the State Conference of the North Carolina Council Teachers of Mathematics. Greensboro, NC.

**Cayton, C.**, Patterson, S.\*, Clemson, J.\*\*, & Springer, L.\*\* (2014). *EdTPA: Experiences and reflections*. Presentation at the State Conference of the North Carolina Council Teachers of Mathematics. Greensboro, NC.



### **Presentations (cont.)**

- Chandler, K.\*, **Cayton, C.** & Nickell, J.\* (2014). *Designing technological tasks*. Workshop presented at the State Conference of the North Carolina Council Teachers of Mathematics. Greensboro, NC.
- Cayton, C.** (2013). *Dynamic geometry in high school math*. Presentation at the State Conference of the North Carolina Council Teachers of Mathematics. Greensboro, NC
- Cayton, C.** (2004). *From here to there: A look at multiple representations*. Presentation at the State Conference of the North Carolina Council Teachers of Mathematics. Greensboro, NC.
- Local**
- Grady, M. & **Cayton, C.** (2022). *Helping interns enrich traditional math lessons*. Latham Clinical Teacher's Conference. Greenville, NC
- Grady, M., **Cayton, C.**, Tschida, C. (2019). *Sharing our co-teaching experiences*. Latham Clinical Teacher's Conference. Greenville, NC
- Grady, M., & **Cayton, C.** (2018). *Co-teaching to support intern development*. Latham Clinical Teacher's Conference. Greenville, NC
- Cayton, C.**, Grady, M., & Middleton, C. (2017). *Co-planning to facilitate intern development*. Presentation at Spring 2017 Latham Clinical Teachers Conference. Greenville, NC.
- Cayton, C.** & Grady, M. (2016). *Co-planning strategies to support clinical teachers and interns*. Presentation at the ECU University Supervisors Training. Greenville, NC.
- Cayton, C.** Grady, M., Middleton, C. & Funsch, A.\* (2016). *Strategies for co-planning with your intern*. Spring 2016 Latham Clinical Teachers Conference. Greenville, NC.
- Cayton, C.** (2013). *Teachers' implementation of pre-constructed dynamic geometry tasks in technology-intensive Algebra 1 Classrooms*. Poster presented at North Carolina State Graduate Research Symposium. Raleigh, NC.
- Cayton, C.** (2013). *Facilitating mathematical discussions in middle and secondary mathematics classrooms*. Eastern Regional Conference for the North Carolina Council Teachers of Mathematics. Greenville, NC.
- Cayton, C.** (2012). *Algebra 1 teachers' use of pre-constructed dynamic Geometry tasks in 1:1 computing environments*. Poster session presented at the Math, Science, and Technology Education Research Symposium. Raleigh, NC.
- Cayton, C.**, Patterson, L & Ware, J. (2011). *Scaling up STEM learning with the VCL*. Poster session presented at the Math, Science, and Technology Education Research Symposium. Raleigh, NC.

## Professional Service

### *Workshops/Professional Development*

- McCulloch, A. W., Lovett, J. N., **Cayton, C.**, Lee, H. S., Dick, L. K., Bailey, N. G.\*, Yalman-Ozen, D.\*, Fletcher, S.\*, Muthitu, P.\*, Fye, K.\*, and Brown, A.\* (2023). *Preparing to teach mathematics with technology - Examining student practices*. Workshop for Mathematics Teacher Educators. New Orleans, LA.
- Cayton, C.** & Grady, M. (2021). *Meaningful mentorship using co-teaching and co-planning*. Hybrid Workshop presented for Auburn University and East Carolina University. Auburn, AL & Greenville, NC.
- Grady, M. & **Cayton, C.** (2021). *Meaningful mentorship using co-Teaching and co-Planning*. Virtual Workshop presented for the University of Hawaii at Manoa. Manoa, HI.
- Cayton, C.** & Grady, M. (2021). *Co-planning during your internship*. Noyce Symposium presented virtually at Columbus State University. Columbus, GA.
- Grady, M., & **Cayton, C.** (2021). *Co-planning for mathematics instruction*. Virtual Workshop presented to Prospective Teachers of Mathematics Association at Appalachian State. Boone, NC.
- Cayton, C.**, Grady, M., Brosnan, P., Strutchens, M., Stone, J. & Sears, R. (2019). *Using co-planning and co-teaching to support equitable teaching practices*. Workshop presented for the Collaborative Research: Attaining Excellence in Secondary Mathematics Clinical Experiences with a Lens on Equity [NSF IUSE Grant] at the University of South Florida. Tampa, FL.
- Cayton, C.** & Grady, M. (2018). *Co-planning & co-teaching*. Workshop for Mathematics Education Clinical Teachers and Teacher Candidates at Auburn University. Auburn, AL.
- Cayton, C.** & Grady, M. (2018). *Co-planning with multi-classroom teachers and co-teachers*. Workshop for South Central High School. Winterville, NC.
- Cayton, C.** & Grady, M. (2018). *Co-planning with multi-classroom teachers and co-teachers*. Workshop for Pitt County Schools DEEL Grant. Greenville, NC.
- Grady, M., **Cayton, C.**, Brosnan, P., & Sears, R. (2018). *Co-planning & co-teaching (CPCT): An apprenticeship model for learning*. Workshop presented for the Collaborative Research: Attaining Excellence in Secondary Mathematics Clinical Experiences with a Lens on Equity [NSF IUSE Grant] at the University of South Florida. Tampa, FL.
- Cayton, C.** & Grady, M. (2016). *Co-planning/Co-teaching as a model to build relationships and support pre-service teachers' during secondary internship experiences*. Workshop Presented for the PRISMS Grant, Residency in Secondary Education (RiSE) Program at the University of California at Chico. Chico, CA.
- Grady, M., **Cayton, C.**, Brosnan, P., & Sears, R. (2016). *Co-planning/Co-teaching during internship experiences in middle school mathematics and science*. Workshop Presented for the HELIOS Project at the University of South Florida. Tampa, FL.

### Professional Service (cont.)

**Cayton, C., Grady, M., Brosnan, P., & Sears, R.** (2015). *Co-planning/Co-teaching as a model to build relationships and support pre-service teachers' during internship experiences in middle school mathematics and science*. Workshop Presented for the HELIOS Project at the University of South Florida. Tampa, FL.

#### *Reviewer of Research*

Mathematics Teacher: Learning and Teaching PK–12	2021-Present
Journal of Mathematics Teacher Education	2016-Present
Association of Mathematics Teacher Educators	2014-Present
National Council Teachers of Mathematics	2013-Present
Psychology of Mathematics Education, North American Chapter Strand Leader 2021, 2022	2012-Present
The High School Journal, School of Education at the University of North Carolina at Chapel Hill	2014
Editorial Board Member <i>Meridian: A Middle School Computer Technologies Journal</i>	2009-2013

#### *Curriculum Evaluator/Reviser*

2006-2008

North Carolina Department of Public Instruction  
Reviewed and revised 2003 North Carolina High School Mathematics Curriculum in reference to national standards including the American Diploma Project, Principles and Standards for School Mathematics, and College Board Standards for the 2008 curriculum

#### *Curriculum Alignment & Resource Author*

2002

Pitt County Schools  
Assisted AP Calculus teachers in aligning textbooks with North Carolina and College Board standards, created pacing guides, instructional guides, and classroom resources

### Professional Organizations

Association of Mathematics Teacher Educators	2012-Present
Association of Mathematics Teacher Educators-North Carolina	2015-Present
Mathematics Teacher Education Partnership	2013-Present
National Association for Co-Teaching	2020-Present
National Council Teachers of Mathematics	2009-Present
North Carolina Council Teachers of Mathematics	1994-2006, 2013-Present
North American Chapter of the International Group for the Psychology of Mathematics Education	2004, 2010-Present
International Group for the Psychology of Mathematics Education	2013