

**CURRICULUM  
VITAE  
Rebecca-Anne Dibbs**

Department of Mathematics  
Texas A&M University-Commerce  
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**EDUCATION**

2014 **PhD, Educational Mathematics**, University of Northern Colorado

Dissertation: *Formative assessment and students' Zone of Proximal Development in introductory calculus*

Adviser: Michael Oehrtman

Doctoral Minor: Educational Psychology (Measurement, Assessment & Testing)

2008 **MA, Mathematics**, Western Michigan University

Concentration: Collegiate Mathematics Education

2005 **MA, Mathematics**, Eastern Michigan University

2003 **BA, Mathematics**, Eastern Michigan University

**EMPLOYMENT** (Instructor of Record unless otherwise noted)

**Texas A&M University-Commerce (2014-2020): Assistant Professor**  
**(2020-Present) Associate Professor**

Graduate courses taught:

Continuous Mathematics<sup>1</sup>, Lebesgue Measurement<sup>1</sup>, Euclidean & Non-Euclidean Geometry<sup>1</sup>, Geometric Reasoning for Teachers<sup>1</sup>, Assessment & Measurement in Secondary Mathematics<sup>1</sup>, Math Modeling for Teachers<sup>1</sup>, Teaching & Learning Statistics<sup>1</sup>, Algebraic Reasoning for Teachers<sup>1</sup>, Abstract Algebra<sup>1</sup>, Probability Theory<sup>1</sup>, Statistics Theory<sup>1</sup>, Foundations of Analysis, Thesis, Research Methods and Techniques

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<sup>1</sup> Online

Undergraduate courses taught:

Mathematics for Liberal Arts Majors<sup>3</sup>, Calculus I<sup>2</sup>, Calculus II<sup>2</sup>, Calculus III<sup>3</sup>, Discrete Mathematics<sup>3</sup>, Linear Algebra, Introduction to Proof<sup>1,4</sup>, College Geometry<sup>1, 4</sup>, Abstract Algebra<sup>1,3</sup>, Math Modeling I & II for Middle School Mathematics Teachers, History of Mathematics, Mathematics Methods for Secondary Teachers<sup>5</sup>, Real Analysis, Research & Reading, Thesis

**University of Northern Colorado (2009-2014): Teaching Assistant**

Graduate courses taught: (co-instructor)

Continuous Mathematics, Problem Solving

Undergraduate Courses Taught

Introductory Statistics, Mathematics for Elementary Education Majors, Mathematics for Liberal Arts Majors, Topics in Calculus, Calculus I, Calculus II, Calculus III, Linear Algebra, College Geometry I & College Geometry II

**Western Michigan University (2006-2008): Teaching Assistant**

Undergraduate courses taught:

College Algebra, Pre-calculus, Calculus I, & Vector Calculus II

**Eastern Michigan University (2003-2005): Mathematics Student Services Center Coordinator**

I managed 20 tutors and three graduate assistants for the center, which assisted in remedial mathematics courses; provided exam proctors and tutors for all undergraduate courses; and conducted placement testing. My responsibilities included payroll and Academic Honesty Committee documentation, scheduling, signing students in/out of the lab, budget preparation, and preparation of lab use reports for the Departments of Mathematics and Remedial Mathematics. I also wrote the current tutor handbook.

**PUBLICATIONS**

**Journal Articles**

**Dibbs, R. A.,** Lewis, K., Moon, J, & Steward, R. (2023). Using Bafa Bafa to help pre-service teachers experience microaggressions. *The Mathematics Educator*, 31(1), 5-29.

**Dibbs, R. A.,** & Boyle, S. (2022). Mondrian rectangles: A rich review activity. *Journal of Mathematics Teacher Education-Texas*, 12(2), 10-13.

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<sup>2</sup> CLEAR Calculus

<sup>3</sup> Flipped class

<sup>4</sup> Modified Moore Method

<sup>5</sup> Capstone Course

- Dibbs, R. A.** (2021). Preservice teacher PCK gains in a special education supplemented methods course: A case study. *Journal of Mathematics Teacher Education-Texas*, 11(2), 12-14.
- McKinney, T., & **Dibbs, R.** (2021). Performance in Calculus II for students in CLEAR Calculus: A causal comparative study. *Pursue*, 4(1). Retrieved from <https://digitalcommons.pvamu.edu/pursue/vol4/iss1/3>.
- Dibbs, R. A.**, Hott, B. L., Martin, A., Raymond, L., & Kline, T. (2020). Combining like terms: A qualitative meta-synthesis of Algebra I interventions in mathematics and special education. *International Journal of Education in Mathematics, Science and Technology (IJEMST)*, 8(3), 219-232.
- Hott, B. L., & **Dibbs, R. A.** (2020). The faces of our research foundation: A qualitative synthesis of algebra strategy research. *International Journal of Research in Education and Science*, 6(1), 34-47.
- Dibbs, R. A.**, Beene, L., & Lewis, K. (2019). Using Classchatter to mediate controversial discussions in small teacher preparation programs: A case study. *Teaching for Equity and Excellence in Mathematics*.
- Hott, B. L., **Dibbs, R. A.**, Naizer, G., Raymond, L., Reid, C. C., & Martin, A. (2019). Practitioner perceptions of algebra strategy and intervention use to support students with mathematics difficulty or disability in rural Texas. *Rural Special Education Quarterly*, 38(1), 3-14.
- Dibbs, R. A.** (2019). Forged in failure: Necessary and sufficient conditions for student success in a repeated course. *Educational Studies in Mathematics*, 100(308), 1-16. <https://doi.org/10.1007/s10649-019-9877-0>
- Dibbs, R. A.** (2018). Modern Geometry I & II: A review. *Journal of Inquiry-Based Learning in Mathematics*, 47(1), 1-13.
- Dibbs, R.A.**, & Reynolds, J. (2018). Preservice teachers' noticing in a nontraditional calculus course: A case study. *Journal for Effective Schools Project*.
- Dibbs, R.A.**, Beach, J., & Rios, D. M. (2018). Limiting resources to build classroom community in a flipped pre-service teacher course for pre-service middle school teachers. *International Journal of Innovation in Education*, 5(1), 12-30.
- Dibbs, R.A.**, Beach, J. L., & Rios, D. M. (2018). Gotta walk them all: Using mathematical modeling to choose the best buddy in Pokémon Go. *Mathematics Teacher*, 112(1), 34-39.
- Dibbs, R.A.**, & Kline, T. (2018). Student achievement and test score calibration in introductory calculus. *Pursue*, 2(2), 27-33.
- Dibbs, R.A.**, & Hott, B. L. (2017). Using Smartpens to support classroom community development. *MAA Focus*, Jan 2017/Feb 2017, 34-35.
- Dibbs, R.A.**, Rios, D. M., & Christopher, B. (2017). Formative assessment and its influence on classroom community in calculus for life sciences. *The Qualitative Report*, 22(6), 1710-1726.
- Dibbs, R. A.**, Glassmeyer, D., & Yacoub, W. (2013). Students' perceived utility of precision taught calculus. *Qualitative Report*, 18(101), 1-15.

- Glassmeyer, D. M., & **Dibbs, R. A.** (2012). Researching from a distance: Using live web conferencing to mediate data collection. *International Journal of Qualitative Methods*, 11(3), 292-302.
- Glassmeyer, D. M., **Dibbs, R. A.**, & Jensen, R. T. (2011). Determining utility of formative assessment through virtual community: Perspectives of online graduate students. *Quarterly Review of Distance Education*, 12(1), 23-35.

### Chapters in edited volumes

- Hott, B. L., **Dibbs, R. A.**, Hayes, D., & Raymond, L. (2017). Assessment in inclusive settings. In C. Curran (Ed), *Handbook of Research on Classroom Diversity and Inclusive Education Practices*. Hershey, PA: IGI Global.
- Dibbs, R. A.**, Glassmeyer, D. M., & Lahman, M. (2014). In M Lictman (Ed), *Qualitative research in the social sciences*. Thousand Oaks: Sage Publications.

### Peer Reviewed Conference Proceedings

- Dibbs, R. A.**, & Celik, M. (2024). Investigating students' worldviews of complex multiplication and derivatives. In P. Drijvers, C. Csapodi, H. Palmér, K. Gosztonyi, & E. Kónya (Eds.), *Proceedings of the Thirteenth Congress of the European Society for Research in Mathematics Education (CERME13)*. Alfréd Rényi Institute of Mathematics and ERME. <https://hal.science/CERME13/hal-04406015v1>
- Dibbs, R. A.**, & Boyle, S. (2023). Building the bridge for collaborative mathematical instruction: Creating a community of practice among pre-service general and special education teachers. In J. Hodgen, E. Geraniou, G. Bolondi & F. Ferretti. (Eds.), *Proceedings of the Twelfth Congress of the European Society for Research in Mathematics Education (CERME12)* (pp.1-2). Free University of Bozen-Bolzano and ERME. [https://hal.science/CERME12/search/index/?q=%2A&domain\\_t=math](https://hal.science/CERME12/search/index/?q=%2A&domain_t=math)
- Boyle, S, & **Dibbs, R. A.** (2021). Building the bridge: Preparing general and special educators to teach math to students with significant disabilities. In A. Markelz, (Ed.), *TED 2021 Conference Proceedings: Steering into the Future* (pp 204-208). Teacher Education Division of the Council for Exceptional Children, Fort Worth, TX.
- Dibbs, R.A.**, & Beach, J. (2017). Transitioning from definitions to proof: Exploring non-Euclidean geometry in a college geometry course. In Dooley, T. & Gueudet, G. (Eds.) *Proceedings of the Tenth Congress of the European Society for Research in Mathematics Education (CERME10, February 1 – 5, 2017)*. Dublin, Ireland: DCU Institute of Education and ERME. <https://hal.archives-ouvertes.fr/CERME10-TWG04/hal-01925524v1>
- Beach, J., & **Dibbs R.A.** (2017). Raising reasoning through revision: A case study of an inquiry-based college course. *SIGMAA-RUME XX Conference Proceedings*.
- Dibbs, R.A.**, & Patterson, J. (2016). Clearing the way for STEM majors in undergraduate calculus. *SIGMAA-RUME XIX Conference Proceedings*.

- Dibbs, R.A.** (2015). Formative assessment and achievement in introductory calculus: A growth model. *9th Congress of European Mathematics Education Proceedings*, Prague, Czech Republic. [https://hal.archives-ouvertes.fr/CERME9/public/CERME9\\_NEW.pdf](https://hal.archives-ouvertes.fr/CERME9/public/CERME9_NEW.pdf)
- Dibbs, R. A., & Oehrtman, M.** (2014). Differential participation in formative assessment and achievement in undergraduate calculus. *SIGMAA-RUME XVII conference proceedings*, Denver, CO; <http://sigmaa.maa.org/rume/RUME17.pdf>.
- Goss, M., **Dibbs, R.A.**, & Powers, R. (2014). Professional development and student achievement on standardized state exams. *SIGMAA-RUME XVII conference proceedings*, Denver CO; <http://sigmaa.maa.org/rume/RUME17.pdf>.
- Dibbs, R. A.** (2013). Formative assessment and students' Zone of Proximal Development in introductory calculus. *SIGMAA-RUME XVI conference proceedings*, vol. 1. Denver, CO. <http://sigmaa.maa.org/rume/RUME16Volume1.pdf>.
- Dibbs, R. A., & Oehrtman, M. C.** (2012). Learning trajectories and formative assessment in introductory calculus. *SIGMAA-RUME XV conference proceedings*, vol. 2. Portland, OR. [http://sigmaa.maa.org/rume/RUME\\_XV\\_Proceedings\\_Volume\\_2.pdf](http://sigmaa.maa.org/rume/RUME_XV_Proceedings_Volume_2.pdf).
- Dibbs, R. A., Glassmeyer, D. M., Oehrtman, M. C., Swinyard, C., & Martin, J.** (2012, February). Authority dynamics in mathematical discussions. *SIGMAA-RUME-XV conference proceedings*, vol 2. Portland, OR. [http://sigmaa.maa.org/rume/RUME\\_XV\\_Proceedings\\_Volume\\_2.pdf](http://sigmaa.maa.org/rume/RUME_XV_Proceedings_Volume_2.pdf).

#### Peer-Reviewed Newsletter Articles

- Rios, D. L., & **Dibbs, R.A.** (2016). Building classroom community using smartpens. *Connections*. <https://amte.net/connections/2016/08/building-classroom-community-using-smartpens>
- Dibbs, R. A., & Rios, D. M.** (2016). Mathematics in my voice: The experiences of non-native English-speaking preservice teachers. *Link*, 7(1).
- Dibbs, R.A. & Rios, D. L.** (2016). Authority dynamics and group norms of preservice middle school teachers during group work pencasts, *Link*, 6(2), 10-11.

#### Articles under review and in revision

- Dibbs, R. A., Rios, D., Seltzer, D., Steward, R.** (under revision). The experiences of Spanish-speaking pre-service teachers. *Educational Studies*.
- Dibbs, R. A., & Boyle, S.** (under revision). Building transdisciplinary knowledge for pre-service mathematics and special education teachers through a virtual community of practice, *The Mathematics Educator*.
- Bramblett, K., & **Dibbs R. A.** (under review). Hyflex modality and student achievement in introductory calculus. *Butler Journal of Undergraduate Research*.
- Rivera, J., & **Dibbs, R. A.** (in preparation). Student perceptions of grouping strategies in a flipped mathematics classroom, *International Journal of Education in Mathematics, Science and Technology (IJEMST)*.

## GRANTS

- 2024 **Dibbs, R. A.** (PI), Julie Mills (co-PI), and Fields, M. (co-PI). *First generation college students' transition to undergraduate mathematics: a photo elicitation study.* International Faculty Development Grant, \$500.
- 2022 **Dibbs, R.A.** (PI). *Building the bridge for collaborative mathematical instruction: Creating a community of practice among pre-service general and special education teachers.* International Faculty Development Grant, \$500.
- 2020 **Dibbs, R.A.** (PI). *Increasing secondary mathematics pre-service teachers' special education pedagogical content knowledge.* QEP, \$1000.
- 2019 **Dibbs, R. A.** (PI). *Increasing secondary mathematics pre-service teachers' special education pedagogical content knowledge.* Presidential GAR Initiative, \$14,667.
- 2018 Newton, W., Lock, R., **Dibbs, R. A.**, Starnes, S., & Delgado, J. (co-PI) *The Noyce Teacher Scholarship Program at Texas A&M University-Commerce.* The National Science Foundation, \$1,008,572.

## Grants Under Review and In Preparation

## SELECTED PRESENTATIONS

### International Conferences

- Dibbs, R.A.**, Mills, J., & Fields, M. (2024, July). First generation college students' transition to undergraduate mathematics: A photo elicitation study. The 15<sup>th</sup> International Congress on Mathematics Education, Sydney, Australia.
- Dibbs, R. A.**, Mills, J., & Fields, M. (2024, July). Secondary pre-service teachers' transition to college mathematics: A photo elicitation study. The 15<sup>th</sup> International Congress on Mathematics Education, Sydney, Australia.
- Dibbs, R. A.**, & Celik, M. (2023, July). Investigating students' worldviews of complex multiplication and derivatives. CERME 13, Budapest, Hungary.
- Dibbs, R. A.**, & Boyle, S. (2022, February). Building the bridge for collaborative mathematical instruction: Creating a community of practice among pre-service general and special education teachers. CERME 12, Bolzano, Italy (Virtual Conference).
- Dibbs, R. A.**, & Martinez, A. (2019, July). Expert vs. novice strategy use in multi-variable integration problems. Psychology of Mathematics Education, Pretoria, South Africa.

- Dibbs, R.A., & Beach, J.** (2017, February). Transitioning from definitions to proof: Exploring non-Euclidean geometry in a college geometry course. CERME 10, Dublin, Ireland.
- Dibbs, R.A.** (2016, July). Differential participation and concept acquisition in introductory calculus. International Congress of Mathematics Education, July 2016, Frankfurt, Germany.
- Dibbs, R.A.** (2015, February). Formative assessment and achievement in introductory calculus: A growth model. CERME 9, Prague, Czech Republic.

### National Conferences

- Celik, M., & **Dibbs, R. A.** (2024, August). Student perceptions of a flipped complex analysis class and complex variables. MAA MathFest, Indianapolis, IN.
- Boyle, S., & **Dibbs, R.A.** (2024, March). Project Bridgebuilder: Supporting collaboration between special and general educators. Council for Exceptional Children, San Antonio, TX.
- Celik, M, & **Dibbs, R. A.** (2023, August). Investigating Students' Worldviews of Complex Multiplication and Derivatives, MathFest, Tampa, FL.
- Boyle, S., & **Dibbs, R. A.** (2022, November). Bridging over gaps: Secondary math for students with disabilities in teacher education. Teacher Education Division Conference, Richmond, VA.
- Boyle, S., & **Dibbs, R. A.** (2021, November). Building the Bridge: Preparing General and Special Educators to Teach Math to Students with Significant Disabilities. Teacher Education Division Conference, Fort Worth, TX.
- Dibbs, R. A.** (2021, February). Preservice Teacher Pedagogical Content Knowledge Gains in a Special Education Supplemented Methods Course: A Case Study. Poster presented at AMTE National Meeting, Virtual Conference.
- Martinez, A., & **Dibbs, R. A.** (2019, February). Expert vs. novice strategy use in multi-variable integration problems. Poster presented at SIGMAA-RUME, Oklahoma City, OK.
- Miles, J., & **Dibbs, R.A.** (2018, February). Mathematics intervention for students with autism: A single case study. Poster presented at AMTE National Meeting, Houston, TX.
- Dibbs, R. A.,** Hott, B. L., Reid, C., Carter, C., Rios, D., & Holt, M. (2018, February). Through the looking glass: A qualitative metasynthesis of Algebra I instructional strategies. Paper presented at the Association of Mathematics Teacher Educators National meeting, Houston, TX.
- Rios, D. L. & **Dibbs, R. A.** (2018, February). Authority dynamics of pre-service middle school teachers during group work Pencasts: authority vs. influence. Paper presented at the AMTE National meeting, Houston, TX.
- Dibbs, R. A., & Beene, L.** (2018, February). History of mathematics meets ethnomathematics. Poster presented at AMTE National Meeting, Houston, TX.
- Beene, L., & **Dibbs R.A.** (2017, February). Formative assessment and mindset changes in introductory calculus. Poster presented at SIGMAA-RUME, San Diego, CA.

- Kline, T., & **Dibbs, R.A.** (2017, February). Formative assessment and calibration in introductory calculus. Poster presented at SIGMAA-RUME, San Diego, CA.
- Beach, J., & **Dibbs, R. A.** (2017, February). Students' proof schemes changes in a college geometry course. Poster presented at AMTE National meeting, San Diego, CA.
- Beach, J., & **Dibbs R.A.** (2017, February). Raising reasoning through revision: A case study of an inquiry-based college course. SIGMAA-RUME, San Diego, CA.
- Dibbs, R. A.** (2017, February). Using Classchatter to mediate online discussion in small teacher preparation programs. AMTE National Meeting, Orlando, FL.
- Rios, D. M. & **Dibbs, R. A.** (2017, February). Mathematics in my voice: The experiences of native Spanish-speaking preservice teachers. AMTE National Meeting, Orlando, FL.
- Patterson, J., & **Dibbs, R.A.** (February, 2016). Mindsets in introductory calculus. Poster presented to the 19<sup>th</sup> Research on Undergraduate Mathematics Education Conference in February 2016.
- Rios, D. & **Dibbs, R.A.** (January, 2016). *Authority dynamics and group norms of preservice teachers during group work pencasts: a discourse analysis*. Poster presented at the AMTE national meeting in Irvine, CA.
- Dibbs, R.A.** (2015, October). Using post-class reflections to change students' mindsets. Poster presented at the Fall 2015 Research on Teaching & Learning Summit, Atlanta, GA.
- Dibbs, R. A.** (2015, January). "How does this help me?" *Modeling growth in introductory calculus by using participation in formative assessment*. Paper presented at the MAA-AMS Joint Meeting, San Antonio, TX.
- Dibbs, R.A.** (2015, January). *Attribution, participation, and formative assessment in introductory calculus: A growth model*. Paper presented at the MAA-AMS Joint Meetings, San Antonio, TX.
- Miller, N., **Dibbs, R.A.**, Roberson, L., & Rozner, S. (2014, June). *Discussion on a mentoring program for using IBL methods in teaching college geometry*. Paper presented at the Legacy of R.L. Moore Conference, Denver, CO.
- Dibbs, R. A.**, & Oehrtman, M. (2014, February). *Differential participation in formative assessment and achievement in undergraduate calculus*. Paper presented at SIGMAA- RUME, Denver, CO.
- Goss, M., **Dibbs, R.A.**, & Powers, R. (2014, February). *Professional development and student achievement on standardized state exams*. Paper presented at the SIGMAA-RUME conference, Denver, CO.
- Dibbs, R.A.**, & Hoskinson, A. M. (2014, January). *Breathing life into mathematics for biologists: teaching quantitative practices to undergraduate biology students*. Paper presented at the MAA-AMS Joint Meeting, Baltimore, MD.
- Dibbs, R. A.**, & Christopher, B. (2014, January). *Formative assessment and classroom community in calculus for the life sciences*. Paper presented at the MAA-AMS Joint Meeting, Baltimore, MD.



Goss, M., **Dibbs, R.A.**, & Powers, R. (2014, January). *Professional development and student achievement on standardized state exams*. Paper presented at the MAA-AMS Joint Meeting, Baltimore, MD.

### State Conferences

**Dibbs, R.A.**, Rios, D., Seltzer, D., & Steward, R. (2023, September). The experiences of Spanish-speaking pre-service teachers. AMTE-TX, Denton, TX.

**Dibbs, R.A.**, & Boyle, S. (September 2022). Building virtual communities of practice for pre-service mathematics and special education teachers. Association of Mathematics Teacher Educators of Texas State Conference, Corpus Christi, TX.

**Dibbs, R. A.**, & Boyle, S. (September, 2021). Project Bridgebuilder: Partnering methods classes to prepare pre-service teachers to support students with disabilities. Association of Mathematics Teachers of Texas Annual Conference, Virtual Conference.

**Dibbs, R. A.** (2018, September). Incorporating equity through capstone research in a secondary methods class. Paper presented at the Annual Association of Mathematics Teacher Educators of Texas meeting, Nacogdoches, TX.

**Dibbs, R. A.**, Beene, L., & Lewis, K. (2017, October). Ethnomathematics meets math history: Incorporating equity into a middle school content course. Association of Mathematics Teacher Educators of Texas Conference, Fort Worth, TX.

Hott, B. L., **Dibbs, R. A.**, Kline, T., Holt, M. Carter C., & Rios, D. (2017, October). A qualitative synthesis of algebra strategy and research. Association of Mathematics Teacher Educators of Texas Conference, Fort Worth, TX.

Miles, J., & **Dibbs, R. A.** (2017, March). *Math intervention for students with autism*. MAA Texas Section Meeting, Commerce, TX.

Kline, T., & **Dibbs, R. A.** (2017, March). *Reflection, calibration, and achievement in introductory calculus*. MAA Texas Section Meeting, Commerce, TX.

Beene, L., & **Dibbs, R. A.** (2017, March). *STEM major mindset changes during their first undergraduate course*. MAA Texas Section Meeting, Commerce, TX.

Beach, J., & **Dibbs, R. A.** (2017, March). *Relating proofs and revisions: A case study of an inquiry-based college geometry course*. MAA Texas Section Meeting, Commerce, TX.

**Dibbs, R. A.**, Hott, B. L., Carter, C., Rios, D. L., Kline, T., Reid, C., & Holt, M. (2017, March). *A metasynthesis of Algebra I interventions, 1981-2017*. MAA Texas Section Meeting, Commerce, TX.

Hott, B. L., **Dibbs, R.A.**, Rios, D. L., Reid, C., & Carter, C. (2017, March). *Houston, we have a problem: A needs assessment of Algebra I professional development in Texas*. MAA Texas Section Meeting, Commerce, TX.

**Dibbs, R.A.** & Rios, D. M. (2016, September). *Mathematics in My Voice: The Experience of Non-native English-speaking Pre-service Teachers*. AMTE-TX Conference, Abilene, TX.

- Dibbs, R.A.** (2016, April). *Using Smartpens to build classroom community in a per-service middle school teachers mathematics course*. MAA Texas Section Meeting, Nacogdoches, TX.
- Beach, J., & **Dibbs, R.A.** (2016, September). *Pre-Service Teachers Geometric Understanding and Modified Moore Method: A Case Study*. AMTE-TX Conference, Abilene, TX.
- Lewis, K., & **Dibbs, R.A.** (April 2016). *History of mathematics meets ethnomathematics*. MAA Texas Section Meeting, Nacogdoches, TX.
- Beach, J., & **Dibbs, R.A.** (April, 2016). *Effects of a modified Moore method college geometry course on students' understanding of proof construction: A case study*. MAA Texas Section Meeting, Nacogdoches, TX.
- Rios, D., & **Dibbs, R.A.** (April, 2016). *Authority dynamics in group work pencasts: A discourse analysis*. MAA Texas Section Meeting, Nacogdoches, TX.
- Patterson, J., & **Dibbs, R.A.** (April, 2016). *Clearing the way for mindset changes through formative assessment*. MAA Texas Section Meeting, Nacogdoches, TX.
- Patterson, J., & **Dibbs, R.A.** (2015, April). *Mindsets in introductory calculus*. Paper presented at the MAA Texas Section Meeting in San Antonio, TX.

### University Talks

- Dibbs, R. A.**, Hott, B. L., Carter, C., Rios, D. L., Kline, T., Reid, C., & Holt, M. (2017, April). *A metasynthesis of Algebra I interventions, 1981-2017*. TAMUC Research Symposium, Commerce, TX.
- Dibbs, R. A.** (2016, September). *Mindsets in introductory mathematics*. CFEI Faculty Fellow Talk, Commerce, TX.
- Dibbs, R. A.** (2016, April). *Formative assessment and achievement in introductory calculus: A Hierarchical Linear Model*. TAMUC Research Symposium, Commerce, TX.
- Rios, D. M. & **Dibbs, R. A.** (2016, April). *Authority dynamics and group norms in pre-calculus*. TAMUC Research Symposium, Commerce, TX.
- Beach, J., & **Dibbs, R.A.** (2016, April). *Proof and revisions: A case study of a Modified Moore Method college geometry course*. TAMUC Research Symposium, Commerce, TX.
- Patterson, J., & **Dibbs, R. A.** (2015, April). *Mindsets in introductory calculus*. Poster presented at TAMUC Research Symposium, Commerce, TX.

### Invited Talks

- November, 2018. Patching the pipeline: Increasing the flow of STEM majors. Presented to the University of Texas-San Antonio Mathematics Department Colloquium.
- January, 2017. Algebra of decision making: Choosing the most efficient Pokemon Go Buddy. Mathematics in the Galaxy, University of Texas-Dallas.
- April, 2016. Softening the Shock: Helping students through critical transition periods. Leoteach Council STEM Education Summit.

October 2014. Differential participation and student achievement in introductory calculus. Presented to the University of Dallas Mathematics Department Colloquium.

## STUDENT RESEARCH SUPERVISION

### Undergraduate Honors Thesis Projects

Kenzie-Lou Bramblett. *Grouping techniques and achievement in introductory calculus: A quasi-experimental study*. (Proposal defense 9.17.2020, Project Defense 8.9.2021)

- HIGHEST HONORS

Amelia Martin (co-chair): *A qualitative analysis of response to intervention in rural East Texas schools* (Proposal defense: 4.5.2018, Project Defense 5.15.2019)

- HONORS

Ja'Bria Miles: *Autism & algebra: A single case study* (Proposal defense: 1.10.2018, Project Defense 12.3.18)

- HIGH HONORS

Ty McKinney: *Performance in second semester calculus based upon introductory calculus delivery method: A casual comparative study* (Proposal Defense: 5.25.2018, Project Defense 8.3.2018)

- HONORS

Taylor Kline: *Formative assessment, calibration, and retention of CLEAR calculus students* (Proposal defense: 9.15.2016; Project Defense: 4.15.2017)

- HIGHEST HONORS

Daniel Rios: *Authority dynamics and group norms of preservice teachers during group work pencasts: A discourse analysis* (Proposal Defense: 8.2015; Project Defense: 1.2017).

- 2015-2016 Outstanding Mathematics Education Research Award
- HIGHEST HONORS

Jennifer Patterson: *Attribution changes in calculus students in traditional & CLEAR Calculus*.

(Proposal Defense: 5.2015; Project Defense: 5.2016)

- 3<sup>rd</sup> Place (Mathematics Research) 2015 Texas A&M System Research Pathways Conference
- HIGH HONORS

### Graduate Thesis Projects

Jennifer Smith. *Developing students' number sense*. (Defense 5.4.2024)

Jessica Rivera. *Students' perceptions of grouping strategies in a flipped calculus class*. (Defense 12.6.23)

Hazal Sirinel. *Response to Intervention in Mathematics in Secondary Schools: A Literature Review*. (Defense 5.2.2022)

Cally Pausewang. *Education in a disaster: an investigation of Hurricane Katrina and recommendations for Covid 19*. (Defense 12.6.2020)

- Stephanie Soto: *Effective and evidence-based Algebra I strategies: A review*. (defense: 3.25.2020)
- Casey Cook: *RTI and choice boards: An action research project* (defense: 3.18.2020)
- Taylor Kline: *Student perceptions of flipped classrooms: An educational ethnography* (defense: 3.16.2020)
- Jennifer Moon: *Achievement in the flipped calculus classroom: A quasi-experimental study* (defense: 3.8.2020)
- Nathan Scarcelli: *Mindset changes in the flipped calculus classroom: A quasi-experimental study*. (defense: 3.1.2020)
- Kehinde Jegede: *The differences in lived experiences between supplemental instructors and learning assistants in introductory calculus*. (Defense: 5.19.2019)
- Jacquelyn Abbott: *Changing from homework to classwork and its effect on student conceptual understanding of geometry concepts: An action research project* (Defense: 5.3.2019)
- Ana Martinez: *Students' understanding of integration in multivariate calculus* (Defense: 3.9.2019)
- Ishak Alptekin: *Formative assessment and student understanding in algebra: An action research project* (Defense: 12.7.2018)
- Jonathan Foresee: *A Meta-synthesis of undergraduate practitioner journals for content, type alignment, and quality for undergraduate mathematics students and pre-service mathematics teachers: PRIMUS and Mathematics Teacher Educator*. (Defense 6.20.2018).
- Mustafa Sirinal: *TI-NSPIRE calculators and student motivation: An action research project*. (Defense: 5.4.2018)
- Laura Beene: *Mindset changes in entry-level mathematics courses*. (Defense: 4.28.2017).
- 2017 MAA-TX Best Presentation Award
  - 2017 Bill Aslan Outstanding Graduate Student Award
- Janessa Beach: *Pre-service teachers' geometric understanding and modified Moore method: A case study*. (Defense: 4.7.2017).
- 2017 Graduate Global Research Award
  - 2017 Bill Aslan Outstanding Graduate Student Award
- Kelly Lewis: *History of mathematics meets ethnomathematics: Building cultural awareness in pre-service middle school teachers*. (Defense: 8.5.2016).

## SELECTED AWARDS

- 2024 CATE System teaching award, campus nominee
- 2021 MODULE(S<sup>2</sup>) Fellowship (Statistics teaching fellowship)
- 2020 MODULE(S<sup>2</sup>) Fellowship (College Geometry teaching fellowship)
- 2019 CalcPlot3D Workshop (Calculus III teaching fellowship-competitive application process)

- 2018 TAMUC Faculty Senate Teaching Award: Innovation  
MODULE(S<sup>2</sup>) Fellowship (College Geometry teaching fellowship)
- 2017 TAMU-C Global Research Award  
ESTEEM Fellowship (statistics education methods fellowship)
- 2016 NLTI Fellowship finalist  
TAMU-C Global Faculty Fellow  
ICME Early Career Faculty Fellowship
- 2015 STaR Fellowship  
Texas NeXT Fellowship  
Texas A&M Commerce Faculty Research Fellowship
- 2014 Building Future Faculty Participant (National Faculty Development Program)
- 2013 Modified Moore Method College Geometry Fellowship (2013-2014); funded by  
the Educational Advancement Foundation (EAF)

## **INTERNATIONAL SERVICE**

- 2023 External Reviewer, Mathematics Education, University of Science and Technology  
of Southern Philippines
- 2022 External Reviewer, Mathematics Education, University of Science and Technology  
of Southern Philippines
- 2020 External Reviewer, Mathematics Education, University of Science and Technology  
of Southern Philippines
- 2018 External Reviewer, Mathematics Education, University of Science and Technology  
of Southern Philippines
- 2017 External Reviewer, Mathematics Education, University of Science and Technology  
of Southern Philippines

## **SERVICE TO THE PROFESSION**

- 2024 *Journal of Mathematics Teacher Education-Texas*, Copy Editor & Associate Editor  
TODOS, Teaching for Equity and Excellence in Mathematics, reviewer  
RUME conference proposal reviewer  
CERME conference reviewer  
ESM, Educational Studies in Mathematics, Reviewer  
MTL, Mathematical Thinking and Learning, Reviewer

- 2023 *Journal of Mathematics Teacher Education-Texas*, Copy Editor & Associate Editor  
 TODOS, Teaching for Equity and Excellence in Mathematics, reviewer  
 RUME conference proposal reviewer  
 CERME conference reviewer  
 ESM, Educational Studies in Mathematics, Reviewer  
 NSF, IUSE Panel Reviewer  
 ICME Reviewer
- 2022 *Journal of Mathematics Teacher Education-Texas*, Copy Editor  
*Connections* Editorial Board Member  
 AMTE-TX, Annual Conference Registration Committee Member  
 TODOS, Teaching for Equity and Excellence in Mathematics, reviewer  
 RUME conference proposal reviewer  
 AMTE conference reviewer  
 ESM, Educational Studies in Mathematics, Reviewer  
 PURSUE, Reviewer
- 2021 *Connections* Editorial Board Member  
 TODOS, Teaching for Equity and Excellence in Mathematics, reviewer  
 RUME conference proposal reviewer  
 AMTE conference reviewer  
 ESM, Educational Studies in Mathematics, Reviewer  
 IML, Investigations in Mathematics Learning, Reviewer  
 IJSTEME, International Journal of STEM Education, Reviewer  
 CERME conference reviewer
- 2020 *Connections* Editorial Board Member  
 AMTE-TX, Treasurer  
 TODOS, Teaching for Equity and Excellence in Mathematics, reviewer  
 RUME conference proposal reviewer  
 AMTE conference reviewer  
 ESM, Educational Studies in Mathematics, Reviewer  
 NSF, IUSE Panel Reviewer
- 2019 *Connections* Editorial Board Member  
 AMTE-TX, Treasurer  
 TODOS, Teaching for Equity and Excellence in Mathematics, reviewer  
 RUME conference proposal reviewer  
 AMTE conference reviewer

- 2018 AMTE-TX, Treasurer  
 CAMT, Conference for the Advancement of Mathematics Teachers: conducted two professional development sessions  
 TODOS, Teaching for Equity and Excellence in Mathematics, reviewer  
 RUME conference proposal reviewer  
 AMTE conference reviewer  
 Consulted with Texas A&M-Texarkana RE: MTE 554 course design
- 2017 AMTE-TX, Treasurer  
 CAMT, Conference for the Advancement of Mathematics Teachers conducted three professional development sessions  
 TODOS, manned recruitment booth at CAMT 2017  
 AMTE-TX, reviewer for AMTE-TX CAMT proposals  
 AMTE-TX, member, 2017 conference committee  
 TODOS, Teaching for Equity and Excellence in Mathematics, reviewer  
 RUME conference proposal reviewer  
 AMTE conference reviewer
- 2016 AMTE National Conference, reviewer  
 CAMT, conducted one professional development session  
 CERME, Tenth Congress of European Mathematics Education (CERME 9), reviewer  
 RUME, SIGMAA RUME XX, reviewer  
 TODOS, Teaching for Equity and Excellence in Mathematics, reviewer
- 2015 AMTE National Conference reviewer  
 CAMT, Conference for the Advancement of Mathematics Teachers (CAMT), conducted two professional development sessions
- 2014 RUME, SIGMAA-RUME XVII, conference volunteer  
 CERME, Ninth Congress of European Mathematics Education (CERME 9), reviewer  
 RUME, SIGMAA-RUME XVIII, reviewer
- 2013 RUME, SIGMAA RUME XVI, reviewer  
 PME-NA, Pi Mu Epsilon-North America 2013, reviewer  
 SIGMAA RUME XVI, conference volunteer
- 2012 RUME, SIGMAA RUME XV, reviewer

## SERVICE TO THE UNIVERSITY

- 2024 Member, Department Curriculum Committee  
Member, departmental SACS committee  
Member, departmental scheduling committee  
Member, University Hearing Committee  
Faculty Development Grant Committee Member
- 2023 Department Curriculum Committee Member  
Member, departmental SACS committee  
COSE Tenure & Promotion Committee Member  
Faculty Development Grant Committee Member
- 2022 Department Curriculum Committee Member  
Member, departmental SACS committee  
QEP Global committee member  
COSE Tenure & Promotion Committee Member  
Faculty Development Grant Committee Member
- 2021 Department Curriculum Committee Member  
Member, departmental SACS committee  
QEP Global committee member  
COSE Tenure & Promotion Committee Member  
Faculty Development Grant Committee Member
- 2020 Department Curriculum Committee Member  
Member, departmental SACS committee  
QEP Global committee member  
COSE Tenure & Promotion Committee Member  
Faculty Development Grant Committee Member
- 2019 Department Curriculum Committee Member  
IRB Member  
Member, departmental SACS committee  
QEP Global committee member  
Search Committee Chair, Mathematics Education
- 2018 IRB Member  
IRB Mentor  
Member, departmental SACS committee  
QEP Global Committee Member  
Search Committee Member, Physics Education  
Research Day Symposium Judge



- 2017 IRB Member  
 2017 MAA Regional Meeting Conference Committee  
 Member, SACS committee  
 QEP Global Committee Member  
 Search Committee Member, Mathematics Instructor (2 hires)
- 2016 IRB Member  
 Leoteach Council Member  
 Coach, Calculus Team  
 Member, IE search committee  
 2017 MAA Regional Meeting Conference Committee  
 Member, SACS committee  
 QEP Global Committee Member
- 2015 IRB Member  
 LeoTeach Council Member  
 Assistant Coach, Calculus Team (our three teams took 1<sup>st</sup>, 4<sup>th</sup> & 12<sup>th</sup> place in the state competition)  
 Mathematics Association of America (MAA) Regional Meeting Conference Committee  
 Search Committee member
- 2014 Chair, 5-Year BS/MS Committee  
 2017 MAA Regional Meeting Conference Committee, Search Committee member  
 Undergraduate mathematics seminar talk; Texas A&M-Commerce
- 2013 Freshmen Orientation Mathematics Adviser  
 Judge for Applied Statistics & Research Methods Research Evening
- 2012 Freshmen Orientation Mathematics Adviser  
 Judge for ASRM Research Evening  
 Mathematical Sciences Graduate Student Representative
- 2011 Freshmen Orientation Mathematics Adviser

## **K-12 TEACHING EXPERIENCE**

- 2002-2003 Secondary pre-student teaching, Detroit Public Schools
- 2002 Math tutor, Pinckney High School, one semester  
 Substitute teacher; Pinckney High School, one semester
- 2001 Elementary Education pre-service teaching, 50 hours

2000-2003     Upward Bound mathematics tutor; Remedial Mathematics Undergraduate  
TA

### **PROFESSIONAL MEMBERSHIPS**

National Council of Teachers of Mathematics

Mathematics Association of America

MAA-Research in Undergraduate Mathematics Education Special Interest Group

Association of Mathematics Teacher Educators (AMTE)

AMTE-Texas

TODOS

Benjamin Banneker Society

PME

CERME

ICME