

Curriculum Vitae

R. Cavender Campbell, Ph. D.

Texas A&M – Commerce • 2200 Campbell St. • Commerce, TX 75428
Office Phone: (903) 468-8660
Email: robert.campbell@tamuc.edu

Education:

- 2011 B.S. Mathematics
Abilene Christian University, Abilene, TX
- 2014 M.S. Mathematics
Thesis Title: *Reconciling Secondary Inservice Teachers Definitions of Problem Solving with those Found in the Research Literature*
University of Texas at Arlington
- 2017 Ph. D. Mathematics (Advisor: James Alvarez)
Dissertation: *Characterizing College Algebra Students' Mathematical Problem Solving*
University of Texas at Arlington

Research Experience:

- 2013-2016 Graduate Research Assistant, University of Texas at Arlington
(AURAS-Arlington Undergraduate Research-Based Achievement in STEM)
- 2015-2017 Graduate Research Assistant, University of Texas at Arlington
(MPSI Development Project)
- 2015-2017 Mathematical Problem Solving Item (MPSI) Development Project,
Researcher (NSF DUE#1544545)
- 2017-2019 Assessment Committee Data Review – Ohio Valley University

Teaching Experience:

- 2011-2017 Graduate Teaching Assistant, University of Texas at Arlington
- 2013-2015 Instructor – Emerging Scholars Program Calculus Workshop
Treisman Style Additional Lab Period for AURAS students
- 2015-2016 Instructor – Peer Academic Leader (PAL) Workshop
Training for Undergraduate Teaching Assistants in AURAS Program
- 2016 Precalculus Instructor – University of Texas at Arlington
- 2017-2019 Assistant Professor and Mathematics Director – Ohio Valley University
(Instructor for all Calculus and upper-level curriculum, lower-level course coordinator, supervised adoption of textbooks for mathematics courses)
- 2019-present Assistant Professor and Professional Faculty – Texas A&M – Commerce

Awards, Honors, Fellowships:

- 2011 Student Employee Award, Abilene Christian University Math Department
- 2011-2015 GAANN Fellowship, University of Texas at Arlington
- 2017 Graduate Student Teaching Award, University of Texas at Arlington

Grant Experience:

- 2015 Graduate Assistant for “Mathematical Problem Solving Inventory (MPSI) Development Project” National Science Foundation (EAGER) \$270,518
Lead PIs: James A. M. Epperson, Kathryn Rhoads

Additional Training and Certifications:

2011-current Texas Teaching Certificate, 8-12 Mathematics
2012-2014 Coursework in using SAS software package

Additional Experience:

2008-2011 Undergraduate Tutor and Teaching Assistant, Abilene Christian University
2015-2016 New Graduate Student Mentor, University of Texas at Arlington
2014-2017 AURAS Peer Academic Leader (PAL) Scheduling Coordinator, UTA
2016-2017 AURAS Peer Academic Leader (PAL) Director, UTA
2017-2019 Mathematics Program Director, Ohio Valley University
Mathematics Seminar and Practicum Coordinator
2017-2019 Assessment Committee Member, Ohio Valley University
2018-2019 Undergraduate Research Day Judge, Ohio Valley University
2018-2019 Assessment Committee Chair, Ohio Valley University
2018-2019 Scheduling Committee Member, Ohio Valley University
2018-2019 Honors Program Committee Member, Ohio Valley University
2020-present Curriculum Committee Member, Texas A&M University – Commerce, Math Department
2020-2024 Search Committee Member, Texas A&M University – Commerce
Math Assistant Professor
Math Administrative Profession
Physics Instructor
2021-present Quality Teaching Committee Chair, Texas A&M University – Commerce, Math Department
2023-present Admissions and Retention Subcommittee of the Faculty Senate, Member

Teaching Developments:

Connecting Calculus Content with 4-8 Math Standards

- MATH 361 Peer Teaching Lesson
- TEKS Connection Assignment

Learning Assistant (LA) usage in Calculus classes – Some pre-service teachers

Adaptation of online homework for Linear Algebra

Videos for Linear Algebra – for a “flipping” a classroom or supplementing instruction

Calculus I and II problem solving labs

Publications and Presentations:

Campbell, R.C. (2013, August) *Reconciling secondary inservice teachers definitions of problem solving with those found in the research literature*. (unpublished Master's thesis)

Campbell, R.C. (2015, March) *Definitions of mathematical problem solving from the mathematics education literature*, Presentation at the Texas Section of the Mathematics Association of America, Laredo, TX.

Campbell, R.C., Epperson, J.A.M., Rhoads, K. (2016, February) *Separating issues in the learning of algebra from mathematical problem solving*. Proceedings of the 19th Annual Conference on Research in Undergraduate Mathematics Education, Pittsburgh, PA: RUME.

Campbell, R.C. (2016, April) *Mathematical problem solving and success in gateway mathematics courses*. Presentation at Annual Celebration of Excellence by Students, Arlington, TX.

Campbell, R.C. (2017, January) *Mathematical problem solving practices: A comparison of a student in College Algebra to a student in Calculus*. Presentation at the Joint Mathematics Meetings, Atlanta, GA

Campbell, R.C., Epperson, J.A.M., Rhoads, K. (2017, January) *The Mathematical Problem Solving Item Development Project*. Poster presented at the Joint Mathematics Meetings, Atlanta, GA

Epperson, J.A.M., Rhoads, K., Campbell, R.C. (2016, July) *Toward developing an instrument to assess mathematical problem solving*. Paper presented at International Congress on Mathematics Education, Hamburg, Germany.

Epperson, J.A.M., Rhoads, K., & Campbell, R.C. (2016, April). *Developing Likert Items to Capture Mathematical Problem Solving*. Poster presented at the Envisioning the Future of Undergraduate STEM Education (EnFUSE): Research and Practice Symposium sponsored by the American Association for the Advancement of Science (AAAS) and the NSF's Division of Undergraduate Education (DUE), Washington, D.C.

Rhoads, K., Epperson, J.A.M., Campbell, R.C. (2016, January) *Mathematical problem solving item (MPSI) development project*. Paper presented at the Joint Mathematics Meetings, Seattle, WA.

Rhoads, K, Epperson, J.A.M., Campbell, R.C. (2017, January) *The Role of Justifying in Entry-Level Undergraduates' Mathematical Problem Solving*. Presentation at the Joint Mathematics Meetings, Atlanta, GA

Alvarez, J. A., Rhoads, K., & Campbell, R. (2019). Toward Designing and Developing Likert Items to Assess Mathematical Problem Solving. In *Mathematical Problem Solving: Current Themes, Trends, and Research* (ICME-13 Monographs, pp. 231-260). Springer.

Campbell, R.C. & Wang T. (2024). "Incorporating ChatGPT in College Mathematics Teaching." Presentation at *MAA Mathfest*, Indianapolis, IN.

Campbell, R.C. & Wang T. (In Press). "Student Responses to ChatGPT Instruction in College Math Courses." Presentation at *MAA Mathfest*, Indianapolis, IN.

Campbell, R. C. & Gross, E. (In Press). Examining Undergraduate Math Students' Problem Solving Strategies.

Alvarez, J. A., Campbell, R.C., Riley, T. (In Press). Examining the influence of a course in mathematical problem solving on practicing secondary mathematics teachers' definitions of mathematical problem solving.

Campbell, R. C. (In Press) "Pathways to teaching representation through mathematical problem solving strategies" Journal TBD.

Campbell, R. C. (In Press) "Understanding student mathematical problem solving through their associated domains, techniques, and strategies." Journal TBD.

Interests:

Undergraduate Education

Mathematics Education

Mathematical Problem Solving

Calculus Vertical Alignment