

ZACHARIAH B. HURDLE

EDUCATION

Doctor of Philosophy (Ph.D.) in Mathematics Education Texas State University: San Marcos, Texas At least 18 credits of math/statistics Dissertation title: <i>Aspects that Arise in the Transition from the Montessori Method to a Traditional Method: A Fourth Grade Mathematics View</i> Advisor: Dr. M. Alejandra Sorto	Aug. 2013 – Aug. 2017
Master of Arts in Teaching (M.A.T.) in Mathematics Education University of Texas at Dallas: Richardson, Texas	Jan. 2010 – Dec. 2011
Bachelor of Science (B.S.) in Business Administration University of Texas at Dallas: Richardson, Texas	Aug. 2004 – May 2008

EMPLOYMENT HISTORY

Assistant Professor of Mathematics Department of Mathematics, Utah Valley University <i>Orem, Utah</i>	2020-present
Assistant Professor of Mathematics Department of Math & Computer Science, Southern Arkansas University <i>Magnolia, Arkansas</i>	2017-2020
Secondary and IB Mathematics Instructor Del Mar Academy <i>Nosara, Costa Rica</i>	2016-2017
Director of Mathematics Department Skybridge Academy <i>Dripping Springs, Texas</i>	2012-2016
Adjunct Instructor South University – North Austin Campus <i>Austin, Texas</i>	2012-2014

CERTIFICATIONS

Online Teaching Academy Certification	2020
Quality Matters Online-Course Certification	2018
IB-Certification	2016
Work Toward Alternative Texas Certification (4-8 and 8-12)	2012

PUBLICATIONS

Refereed Published Work

Hurdle, Z., & Mogilski, W. (in progress). The Impact of Prerequisites for Undergraduate Calculus I Performance (working title).

Stanford, A., **Hurdle, Z.**, Perry, N., & Hicks, K. (in progress). Self-Efficacy in Grade School Students paired with the Practicality of Nintendo Switch Labo Kits to Create STEM Environments (working title). *NSTA's Science and Children*.

Rhine, S., Driskell, S., **Hurdle, Z.**, Rolf, K., & Bundock, K. (under review). The Mathematics Digital Curriculum Boom: How Are Programs Selected? *Curriculum Teaching Dialogue*.

Hurdle, Z., Akbuga, E., & Schrader, P. (accepted with revisions). Exploring Calculus I Students' Performance Between Varying Course Times Among Other Predictive Variables. *International Journal of Innovation in Science and Mathematics Education*.

Hurdle, Z. (2020). Observing Effects of Hands-On Activities on Middle School Math Teacher Confidence in Geometry and Statistics: A Case Study. *Teachers and Curriculum: 20*(1). 31-42.

Akbuga, E., **Hurdle, Z.**, Daniel, S., & Laffey, R. (2019). Using Calculus Writing Assignments to Foster Student Motivation. *Mathematics in School: 47*(4). 37-39.

Hurdle, Z., Stanford, A., & Gardner, B. (2019). Transitioning from Montessori to Traditional Mathematics: A Third and Fourth Grade Case Study in Central America. *SUNY's Open Mathematical Education Notes: 9*(1). 1-21.

Hurdle, Z. (2018). A CGI Case Study Analyzing Montessori Math Effectiveness. *Journal of Education and Social Development: 2*(2). 15-18.

Akbuga, E., & **Hurdle, Z.** (2018). Using Area Models to Visualize the Difference of Squares. *Arkansas Council of Teachers of Mathematics Journal (NCTM Affiliate): 14*(3). 26-30.

Hurdle, Z. (2017). *Aspects that Arise in the Transition from the Montessori Method to a Traditional Method: A Fourth Grade Mathematics View*. Doctoral Dissertation, Texas State University.

Hurdle, Z., Warshauer, M., & White, A. (2016). The Place and Purpose of Combinatorics. *NCTM's Mathematics Teacher: 110*(3). 216-221.

Conference Proceedings

Driskell, S., Rhine, S., & Rolf, K., Bundock, K., & **Hurdle, Z.** (2020). PK-8 Mathematics Digital Curriculum Selection Process: Analysis Across States. In E. Langran (Ed.), *Proceedings of the Society for Information Technology and Teacher Education (SITE) Interactive 2020 Online Conference*. 463-468. Online: Association for the Advancement of Computing in Education (AACE).

Hurdle, Z. & Stanford, A. (2019). Analyzing the Transition Away From Montessori with a Mathematics Point of View. Otten, S., Candela, A.G., de Araujo, Z., Haines, C., & Munter, C. (Eds.). *Proceedings of the 41st annual meeting of the North American Chapter of the International Group for the Psychology of Mathematics Education*: 86-90. St. Louis, MO: University of Missouri.

Hurdle, Z. (2018). Influencing Factors that Appear in the Transition from Montessori Mathematics to Traditional Methods. 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*: 1008. Greenville, SC: University of South Carolina & Clemson University.

Hurdle, Z. (2018). A Case Study Analyzing Montessori Mathematics Effectiveness. *The 2018 IBII International Conference Proceedings*: 82. The Woodlands, TX: Sam Houston State University.

Other Non-Research Published Work

Akbuga, E., & **Hurdle, Z.** (in progress). Interactive Teaching IS Possible with Online Learning Technologies. *Edutopia*. www.edutopia.org.

Hurdle, Z. (2019). Thinking in Numbers: A Book Review. *The Texas Mathematics Teacher*. 65(2): 11-12.

Hurdle, Z. (2017). Teaching High-Level Math to Young Students. *Edutopia*. www.edutopia.org.

Hurdle, Z. (2016). A Way Outside of the Box. *Alt Ed Austin*. www.altedaustin.com.

PRESENTATIONS

International Conferences

Hurdle, Z., Stanford, A. (2019). *Analyzing the Transition Away From Montessori with a Mathematics Point of View: Three Particular Factors*. Research report presented at the 41st North American Chapter of the International Group for the Psychology of Mathematics Education Conference (PME-NA) on November 15, St. Louis, Missouri.

Hurdle, Z. (2019). *Observing Effects of Hands-On Activities in Improving Confidence and Content Knowledge in Middle School Mathematics*. Roundtable session presented at NISOD's 42nd International Conference on Teaching and Leadership Excellence, from National Institute for Staff and Organizational Development, on May 27, Austin, Texas.

Hurdle, Z. (2018). *Influencing Factors that Appear in the Transition from Montessori Mathematics to Traditional Methods*. Poster session presented at the 40th North American Chapter of the International Group for the Psychology of Mathematics Education Conference (PME-NA) on November 16, Greenville, South Carolina.

Hurdle, Z. (2018). *Observing Effects of Hands-On Activities in Improving Confidence and Content Knowledge in Middle School Teachers*. Focus session presented at the 7th International STEM Education Association (ISEA) on October 8, Branson, Missouri.

Hurdle, Z. (2018). *A CGI Case Study Analyzing Montessori Mathematics Effectiveness*. Presented at the International Conference on Education and Social Development (ICESD), subsection of IBII, April 6-7, The Woodlands, Texas. Additionally served as session chair.

National Conferences

Driskell, S., Rhine, S., & **Hurdle, Z.** (2020). *PK-8 Mathematics Digital Curriculum Selection Process: Analysis Across States*. Presented at Society for Information Technology and Teacher Education (SITE) Interactive Conference, October 27, Online.

Stanford, A., Oden, L., & Wilson, C. & **Hurdle, Z.** (2019). *The Value of Classroom Discussion: Are Teachers Cashing In?* Speed learning session presented at the 46th Association for Middle Level Education Conference (AMLE), November 7-9, Nashville, Tennessee.

Hurdle, Z. & Stanford, A. (2019). *Practicality of the Nintendo Switch Labo Kits in Promoting STEM Education Effectively for Young Students*. Speed learning session presented at the 46th Association for Middle Level Education Conference (AMLE), November 7-9, Nashville, Tennessee.

Stanford, A., Hill, J. & **Hurdle, Z.** (2018). *Collaborative Conversation in the Classroom*. Presented at the National Conference on Science Education, March 15, Atlanta, Georgia.

Hurdle, Z. (2018). *Aspects that Arise in the Transition from the Montessori Method to a Traditional Method: A Fourth Grade Mathematics View*. Presented at the Critical Questions in Education Conference (CQiE), March 6, Portland, Oregon.

Akbuga, E. & **Hurdle, Z.** (2018). *Using Area Models to Visualize the Difference of Squares*. Presented at the Critical Questions in Education Conference (CQiE), March 6, Portland, Oregon.

Akbuga, E. & **Hurdle, Z.** (2017). *Discussing the Understanding of Difference of Squares Through Area Models*. Research poster presented at the 44th Annual Research Council on Mathematics Learning Conference (RCML), March 2-4, Fort Worth, Texas.

Andra, N., Miller, A., Merwin, T., & **Hurdle, Z.** (2016). *Failing Successfully in a School: True Confessions*. Presented at the SXSWedu Conference, March 9, Austin, Texas.

Regional Conferences and Workshops

Hurdle, Z. (2020). *Online Homework in Calculus: What Does the Research Say?* Utah Valley University Fall Math Department Colloquium Series on December 11, Orem, Utah.

Webb, D., & **Hurdle, Z.** (2020). *The College Mathematics Experience: A Springboard to Many Meaningful and Successful Career Choices*. Southern Arkansas University Junior Scholars Day on February 18, Magnolia, Arkansas.

Stanford, A., **Hurdle, Z.**, Oden, L., & Wilson, C. (2020). *STEM Education*. Southern Arkansas University Junior Scholars Day on February 18, Magnolia, Arkansas.

Stanford, A., & **Hurdle, Z.** (2019). *Teaching Strategies that Boost Student Engagement*. SAU Faculty Professional Development Series on October 3, Magnolia, Arkansas.

Hurdle, Z. Cook, L., Lemons, J., & Winfield, J. (2019). *Popcorn Prisms*. Workshop for “Girls in STEM” initiative at SAU on April 24, Magnolia, Arkansas.

Stanford, A. & **Hurdle, Z.** (2019). *Closing the Gap in STEM Education*. Presentation at Spring Faculty Colloquium Series at SAU on April 17, Magnolia, Arkansas.

Stanford, A. & **Hurdle, Z.** (2019). *Lafayette STEM Day Visit for 4th Grade*. Hosted 4th grade class from Lafayette Schools to station rotations on STEM topics on March 28, Magnolia, Arkansas.

Schrader, P., **Hurdle, Z.**, & Elamami, E., (2019). *A Bubble’s Tale: The Geometry of Soap Film*. Presentation for 3rd-12th grade students at Southwest Arkansas Regional Science Fair at SAU Campus on March 8, Magnolia, Arkansas.

Stanford, A., Crank, V., & **Hurdle, Z.** (2018). *5 Cs to Enhance Student Engagement*. Presentation at New Faculty Orientation Series at SAU on October 4, Magnolia, Arkansas.

Hurdle, Z. & Stanford, A. (2018). *Popcorn Prisms to Understand Volume*. ACTM Conference: Aspire to Create Thinkers of Math, on September 28, Little Rock, Arkansas.

Hurdle, Z. (2018). *Observing the effects of hands-on activities in improving confidence and content knowledge for mathematics*. Professional Development session for geometric and statistical topics at SAU, July 16-20, 23-27, Magnolia, Arkansas.

Hurdle, Z. Cook, L., & Perry, N. (2018). *Popcorn Prisms*. Workshop for “Girls in STEM” initiative at SAU on April 20, Magnolia, Arkansas.

Stanford, A., Perry, N., & **Hurdle, Z.** (2018). *Math and STEM Education*. Session for potential teaching degree students at SAU, SAU campus on February 20, Magnolia, Arkansas.

Hurdle, Z., Stanford, A., & Guevara, R. (2018). *Hope High School Math Day*. Workshop for students at Hope High School, collaboration with SAU students and ERZ initiative on February 14, Hope, Arkansas.

Hurdle, Z. (2017). *Popcorn Prisms*. Workshop for high school students at SAU College of Science and Engineering Open House on November 3, Magnolia, Arkansas.

Hurdle, Z., & Brock, C. (2017). *Popcorn Prisms/Sticks and Stones*. Workshop for Teachers at Arkansas Curriculum Conference on November 2, Little Rock, Arkansas.

Miller, A., **Hurdle, Z.**, Morrison, J., & Villareal, J. (2016). *Skybridge Academy Information*. Booth as part of Education Transformation Alliance in March, Austin, Texas.

Hurdle, Z. *The Place and Purpose of Combinatorics*. (2015). Poster presentation at Texas State Mathematics Department Graduate Open House in October, San Marcos, Texas.

Miller, A., Andra, N., & **Hurdle, Z.** (2014). *Skybridge Academy Information*. Booth as part of Education Transformation Alliance in August, Austin, Texas.

Terrell, W. & **Hurdle, Z.** (2014). *Organic and Connected Mathematics*. Workshop at the STEAM3 Playground on March 1 & 2, Austin, Texas.

Hurdle, Z. (2014). *Attitudes and Motivation for Learning Mathematics*. Poster presented in Texas State University Mathematics Department in July, San Marcos, Texas.

Relevant Professional Experience and Selections

(2020). *Success for All: Access and Equity in the New Normal*. Paid participant in UTLG Faculty Fall Conference (virtual) through Utah Valley University and Utah State University; September 19, Orem, Utah.

(2020). *Project Launchpad*. Online survey about early mathematics academic career, and COVID-19 impact through University of Colorado-Boulder.

(2019). *2nd Annual Symposium for Teaching*. Attended workshops that were presented for SAU faculty; August 15, Magnolia, Arkansas.

(2019). *Computerized Programs for Middle School Mathematics Teachers Proportional Reasoning*. Selected as participant in Institute of Education Sciences study for professional development materials feedback through University of Southern California; March.

(2019). *Quick Tips for Online Teaching Exchange*. Attended workshops that were presented for SAU faculty; March 6, Magnolia, Arkansas.

(2019). *Professional Learning Communities Mini-Institute*. Volunteer participants at Solution Tree, ADE professional development workshop with education department through University of Arkansas at Little Rock; February 15, Little Rock, Arkansas.

(2019). *Enhancing Statistics Teacher Education through E-Modules (ESTEEM)*. Selected as statistics education field tester in NSF workshop for methods teachers through North Carolina State University; February 6, Orlando, Florida.

(2018). *1st Annual Symposium for Teaching*. Attended workshops that were presented for SAU faculty; August 16, Magnolia, Arkansas.

(2018). *The Elementary Pre-Service Teachers Mathematics Project*. Selected as geometry field tester in NSF workshop for methods teachers through Boston University; June 6-8, Boston, Massachusetts.

(2018). *Arkansas/Oklahoma Pathway 2 Calculus*. Volunteer participant at workshop for teachers and faculty through the University of Arkansas at Fort Smith; February 2, Fort Smith, Arkansas.

(2016). *SXSWedu Conference & Festival*. Attended conference as an observer and representative of secondary private school Skybridge Academy; March 7-10, Austin, Texas.

Accepted But Declined

Hurdle, Z. (accepted). *History of Mathematics: A Potentially Effective Hybrid Classroom Experience*. Presented at the 82nd Annual Meeting for the Mathematical Association of America – Oklahoma/Arkansas Section (MAA OK-AR), April 2-4, Fayetteville, Arkansas. **Reason:** Cancellation due to COVID-19.

Hurdle, Z. (accepted). *Middle School Teachers' Development on Statistical and Geometrical Concepts*. Accepted for presentation at the 46th Annual Research Council on Mathematics Learning Conference; February 28-March 2, Charlotte, North Carolina. **Reason:** lack of 2018 funding.

RESEARCH EXPERIENCE

Primary Researcher: Unpacking Student Learning of Particular Calculus I Concepts While Working on Online Homework (working title)

(co-PI, Zachariah B. Hurdle, \$X; co-PI, Enes Akbuga)

2021-202X

Utah Valley University, Orem, Utah, USA; Drake University, Des Moines, Iowa, USA;

We aim to investigate to what extent online homework is useful and effective for calculus students in college settings. There is not enough knowledge to support and conclude online homework supporting students, with even less known about Calculus.

Primary Researcher: Evaluating the Effectiveness of Nintendo Labo in a STEM Classroom

(PI, Zachariah B. Hurdle, \$7,999.76; secondary, Angela G. Stanford)

2019-2020

Southern Arkansas University, Magnolia, Arkansas, USA

Constructed and discussed potential lesson plans with 4-8 grade math and science teachers using the four Switch Labo kits that were available at that time. Study included interviews, but also created content in an action research study.

Primary Researcher: Observing Effects of Hands-On Activities on Middle School Math Teacher Confidence in Geometry and Statistics: A Case Study.

(PI, Zachariah B. Hurdle, \$7,845)

2018-2019

Southern Arkansas University, Magnolia, Arkansas, USA

Implemented pre- and post-tests for confidence and content knowledge to 15 regional middle school math educators. Transcriptions, coding, and brief interviews add to conclusions about one style of teaching compared to another.

Primary Researcher: Factors that Arise in the Transition from the Montessori Method to a Traditional Method: A Fourth Grade Math View. (PI, Zachariah B. Hurdle; Advisor, M. Alejandra Sorto, \$5,000)

2016-2017

Del Mar Academy, Nosara, Guanacaste Province, Costa Rica

Interviewed 30 students, interviewed 4 teachers, and observed 20 class periods.

Transcribed and conducted CGI assessments to evaluate certain factors that affect the mathematical transition out of Montessori programs.

TEACHING EXPERIENCE

Assistant Professor of Mathematics

2020-present

Department of Mathematics, Utah Valley University

Algebra for Secondary Mathematics Teaching (MATH 3030)

For Mathematics Education majors: Includes the exploration of important conceptual underpinnings, common misconceptions and students' ways of thinking, appropriate use of technology, and instructional practices to support and assess the learning of algebra. Teaches algebra as an extension of number, operation, and quantity; various ideas of equivalence as it pertains to algebraic structures; patterns of change as covariation between quantities; connection between representations; and the historical development of content and perspectives from diverse cultures. Focuses on deeper understanding of rational numbers, ratios and proportions, meaning and use of variables, functions, and inverses.

Trigonometry (MATH 1060)

Includes the unit circle and right triangle definitions of the trigonometric functions, graphing trigonometric functions, trigonometric identities, trigonometric equations, inverse trigonometric functions, the Law of Sines and the Law of Cosines, vectors, complex numbers, polar coordinates, and rotation of axes.

Mathematics for Elementary Teachers I (MATH 2010)

Is for pre-elementary education majors. Includes problem solving, sets, numerations systems, arithmetic of whole numbers, integers, rational numbers, real numbers, elementary number theory, ratios, proportions, decimals, and percents.

Mathematics for Elementary Teachers II (MATH 2020)

Is for pre-elementary education majors. Includes topics on probability, statistics, geometry and measurement.

Assistant Professor of Mathematics

2017-2020

Department of Math & Computer Science, Southern Arkansas University

Calculus I (MATH 1525)

The differential and integral calculus of functions of one variable with applications, and topics from plane analytic geometry.

History of Mathematics (MATH 4123/5123)

Presents the development of mathematics from antiquity to modern times. Explores how problem solving has spurred mathematical development. Examines the impact of culture on mathematics and the converse. Discusses mathematical literacy and proficiency from a historical perspective.

Introduction to Applied Probability and Statistics (MATH 3043)

Introduction to descriptive statistics, probability, binomial and normal distributions, hypothesis testing, correlation, and regression.

Higher Order Thinking in Mathematics (MATH 4053)

This course will provide pre-service middle level and secondary teachers in grades five through college with examples of lessons incorporating methods appropriate for students with different learning styles. These lessons will emphasize the use of manipulatives, hands-on materials, cooperative learning techniques, and technology. Topics include number sense and number theory, functions, probability and statistics, geometry, and measurement.

Math for Teachers I (MATH 2053)

A study of numeration systems and the structure of arithmetic with an emphasis on problem solving for the classroom teacher. Includes interaction with community, student teaching, hands-on experience, and introduction to teaching styles. K-6 focus.

Math for Teachers II (MATH 2063)

A study of rational numbers, geometry, measurement, and statistics for the classroom teacher. Includes interaction with community, student teaching, hands-on experience, and introduction to teaching styles. K-8 focus.

Pre-Calculus Mathematics (MATH 1045)

A study of quadratic, polynomial, rational, exponential, logarithmic, and trigonometric functions, their graphs and inverses as well as systems of equations and inequalities, determinants, matrices, sequences and series, conic sections, angles, identities, trigonometric operation formulae, laws of sines and cosines, trigonometric form of complex numbers, vectors, DeMoivre's Theorem, and n^{th} roots of complex numbers.

Mathematical Literacy (MATH 1053)

Introduces various topics to provide students with an approach to problem solving through mathematical logic and reasoning. The course will identify, analyze, generalize, communicate quantitative relationships, and introduce the fundamental notation and rules of mathematical systems as well as construct and interpret visual representations of mathematical relationships.

Secondary and IB Mathematics Instructor

2016-2017

High School Program, Del Mar Academy

Courses Taught:

IB Mathematical Studies (Standard Level)

An outline of many topics: numbers and algebra, logic and sets with probability, descriptive statistics, statistical applications, geometry and trigonometry, mathematical models, and an introduction to differential calculus.

Saxon Math, Algebra 2

This course provides a substantial review of all topics in Algebra 1, then moves into major topics that include advanced algebraic principles, such as linear equations, polynomial functions, quadratic equations, exponential and logarithmic functions, and strategies of solving and graphing all of the above.

Saxon Math, Algebra 1

Covers the essential principles of algebra, including linear equations, graphing and identifying functions, introduction to polynomials and quadratics, rational expressions, and radicals.

Saxon Math, Course 3

This course serves as a follow-up to Course 2, in taking more advanced approaches and problem solving methods to more difficult, high school level situations.

Saxon Math, Course 2

This course emphasizes the application of pre-algebraic concepts to prepare for advanced high school math courses.

Director of Mathematics Department

2012-2016

Skybridge Academy (formerly Bronze Doors Academy)

Courses Designed and Taught:

Pre-Calculus, Algebra 2, Algebra 1, Geometry

High school courses were designed for a self-paced, flipped classroom with student-driven questions. Courses followed Texas standards, but allowed deeper exploration on case-by-case basis.

Elementary Algebra, Pre-Algebra

Pre-Algebra covered fractions, decimals, long division, introduction to graphing linear functions, basic geometry, percentages, and word problems. Elementary Algebra covered multivariable equations, combinatorics, geometric proofs, radicals, quadratics, complex functions, and using the graphing calculator.

Organic Math

This STEM course was co-taught with science department, covering topics such as exponential growth, weather patterns, electricity, behavior of animals, scale of the universe, population dynamics, the golden ratio,

waves, physics, pendulums, rates and derivatives, projectile motion, music, and applications of Pythagorean Theorem.

SAT/TSI Prep

A test preparation course that became more crucial as concurrent credit was available at earlier high school ages, and focused on both content and testing strategies.

Business Math, Real World Math I, Real World Math II

This application course was focused on a wide variety of topics, such as owning a business, how loans work, Microsoft Excel, credit vs. debit, owning vs. renting, linear programming, profit maximization, supply and demand, mathematical induction, the power of proof, interest rates, how to do taxes, rate of change, statistics, money and finance, the graphing calculator, probability, proposing a business plan, the relationship of art and math, the number e, the significance of pi and its uses, non-Euclidean Geometry, fractals, how to tip, platonic solids, history of mathematics, graph theory and networking, and line of best fit.

Adjunct Instructor

2012-2014

South University, Austin Campus

Principles of Algebra (MAT 0099)

An introduction to developmental concepts such as fractions, exponents, operations, solving for variables, word problems, and graphing.

OTHER EXPERIENCE

Tutoring

Upward Bound Summer Program	2019-2020
SAU Academic Enrichment Tutoring Center	2018-2020
Upward Bound School Year ACT Preparation	2017-2019
Mathematics Lab at Skybridge	2015-2016
Mathnasium Tutoring Center	2012-2015
Austin Community College	2013
Karen Dillard College Prep	2010-2012

Camps and Clubs

The Math Club; Advisor and Sponsor at UVU	2020-present
Mulerider Teen College (Summer) at SAU; Instructor	2019
Mulerider Kid's College (Summer) at SAU; Instructor	2019
The Math Club; Advisor and Sponsor at SAU	2017-2020
The Math Club; Lead Instructor for Del Mar	2016
Math, Cooking, Reading, Playing: A Summer Camp; Counselor	2015-2016
Mathworks at Texas State University; Lead Instructor	2014-2016
Math/Chess Mathnasium Summer Camp; Assistant	2014

GRANTS SUBMITTED AND AWARDED

In Progress

Hurdle, Z., Akbuga, E., (in progress). "Analyzing the Effectiveness and Shortcomings of Online Homework in College Calculus Courses" (working title). NSF Grant for Improving Undergraduate STEM Education: Education and Human Resources (IUSE: EHR). **\$undisclosed.**

Approved

Hurdle, Z., Stanford, A. (2019). "Student Travel Scholarship." SAU Student Travel Grant through The Foundation. Southern Arkansas University. **\$485.68.**

Hurdle, Z. (2019). "SAU Foundation Professional Development." SAU Faculty Travel Grant through The Foundation. Southern Arkansas University. **\$537.00.**

Hurdle, Z. (2019). "Evaluating the Effectiveness of Nintendo Labo in a STEM Classroom." Summer SAU Faculty Research Grant. Southern Arkansas University. **\$3999.76.**

Hurdle, Z. (2018). "Observing the effects of hands-on activities in improving confidence and content knowledge for mathematics." Summer SAU Faculty Research Grant. Southern Arkansas University. **\$3,845.00.**

Hurdle, Z. & Stanford, A. (2018). "Effect of Technological Tools on Student Pre-Service Teacher Confidence and Interest in Math Related Classrooms." SAU Teaching with Technology FDTT Grant. Southern Arkansas University. **\$2000.00.**

Hurdle, Z. & Stanford, A. (2017). "Higher Education STEM-Building for Pre-service Teachers." ERZ Mini-Grant. Southern Arkansas University. **\$399.46.**

Rejected

Hurdle, Z. & Simmons, T. (under review). "School In-Service Training Grants (PreK-5) (6-8) (9-12)." Mathematics Education Trust: Clarence Olander Fund and NCTM. **\$12,000.**

Graves, R. & **Hurdle, Z.** (2020). "Prospective 7-12 Secondary Teacher Course Work Scholarship." Mathematics Education Trust: Texas Instruments Demana-Waits Fund. **\$8,280.**

Hurdle, Z. Stanford, A., & Nix, K. (2020). “Implementing Nintendo Switch Labo Kits to Promote STEM Education and STEM Futures in Young Students.” Arkansas State Teachers Association Classroom Grant. **\$500.00.**

Hurdle, Z. (2020). “SAU Foundation Professional Development.” SAU Faculty Travel Grant through The Foundation. Southern Arkansas University. **\$700.00.**

Hurdle, Z. & Gunter, J. (2019). “Using interactive lesson plans to improve proportions and ratio skills for at-risk students.” 7–12 Classroom Research Grant. Mathematics Education Trust: NCTM. **\$4,720.00.**

FELLOWSHIPS, HONORS AND AWARDS

Service-Learning Faculty Fellowship (\$500) **Fall 2020**
Utah Valley University
Orem, Utah

SAU Faculty Research Fellowship (\$4,000) **Summer 2019**
Southern Arkansas University
Magnolia, Arkansas

Student Support Services Faculty of the Year Award **Spring 2019**
Southern Arkansas University
Magnolia, Arkansas

SAU Faculty Research Fellowship (\$4,000) **Summer 2018**
Southern Arkansas University
Magnolia, Arkansas

Academic Excellence at Doctoral Level Award **Spring 2017**
Texas State University, The Graduate College
San Marcos, Texas

Doctoral Research Support Fellowship (\$5,000) **Fall 2016**
Texas State University, The Graduate College
San Marcos, Texas

International Education Fee Scholarship (\$1,000) **Summer 2016**
Texas State University, Center for International Studies
San Marcos, Texas

Academic Excellence at Doctoral Level Award **Spring 2016**
Texas State University, The Graduate College
San Marcos, Texas

Ross and Sarah Wayment Endowed Scholarship (\$4,000) **Spring 2016**
Texas State University, Department of Mathematics
San Marcos, Texas

Student Government Scholarship (\$1,000) **Fall 2015**
Texas State University, Dean of Students Office

San Marcos, Texas

Ross and Sarah Wayment Endowed Scholarship (\$4,000)

Spring 2015

Texas State University, Department of Mathematics

San Marcos, Texas

Summer Incentive Scholarship Program (\$2,000)

Summer 2014

Texas State University, The Graduate College

San Marcos, Texas

Academic Excellence Scholarship (\$40,000)

Summer 2004

The University of Texas at Dallas, Office of Undergraduate Education

Richardson, Texas

SERVICE

University Service

Mathematics Education Committee	2020
Calculus Sequence Revamp Committee	2020
CCE Committee Member for concurrent credit for UVU math	2020
UVU Math Department Outreach Committee	2020
UVU Undergraduate Activities Committee	2020
SAU Biology Instructor Hiring Committee Member	2020
SCUDEM Challenge Coaching Representative	2019
Math Education Representative for Donor Meetings	2019
Resident Director of Fincher Hall	2019-present
Southern Arkansas University Faculty Senate Member	2019-2021
SAU Math Instructor Hiring Committee Member	2019
SAU Agriculture Education Assistant Professor Hiring Committee Member	2019
SAU-UALR Math Club Trip Chaperone	2019
CCM Leadership Team	2019
Mulerider LEAD Leadership Development Program Member	2018-2019
EPP (Educator Preparation Program) Committee Member	2018-present
Program Director for Secondary Mathematics Education	2018-present
Teacher Education Committee Member	2018-present
IEPC (Initial Educator Preparation Committee) Member	2018-present
SAU Mathematics Education Undergraduate Advisor	2017-present
SAU Math in the Picture Director	2017-present
CCE Regional Coordinator for concurrent credit at SAU	2017-present
SAU Student Media Committee	2017-present
Mentoring Minority Males in Education (M ³ E) Collaborator	2018
Planned Math & Computer Science Department End of Year Picnic	2018
SAU Science Fair Guest Judge	2018
“Year of Math” Organizer and Coordinator	2017-2018

Team Study – Faculty Night Volunteer

2017-2018

Community Service

ACTM Executive Board Member (4-year institution representative)	2020
ACTM Contest Pre-Calculus Test Co-Writer for Arkansas	2020
ACTM Contest Algebra II Test Co-Writer for Arkansas	2019
Participant in NSF’s “Survey of Instructional Practices” for Calculus	2019
ACTM Regional Contest Coordinator, host campus at SAU	2017-present
Hope High School “Math Day” Coordinator	2018
Washington Middle School “STEAM Day” SAU-Help Coordinator	2018
Montessori Program Evaluator of Mathematics, for Del Mar Academy	2016-2017
Guest Teacher, Fifth Grade, for Del Mar Academy	2016-2017
Math in the Picture Competition, submitted student work, for Texas State University	2015
Professional Development Committees for Mathworks	2014-2016
Guest Speaker, STEAM3 Meetings	2014

Global Service and Memberships

NCTM Membership	2018-present
ACTM Membership	2020-2021
AMLE Membership	2019-2020
RCML Membership	2017-2018
<u>OMEN</u> Article Submission Reviewer	2019-present
<u>PME-NA</u> Proposal Reviewer	2018-present
<u>Texas Math Teacher</u> Reviewer	2017-present
Bandera Azul Celebración, host campus for Guanacaste, Costa Rica	2016
