

FACULTY VITA

GILBERT (Gil) NAIZER

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PROFESSIONAL INTERESTS

Effective Uses of Inquiry in Teaching
Teacher Professional Development
Mathematics and Science Instruction
Student Conceptions of Science
Student Attitudes & Motivation toward STEM
Middle Level Teacher Preparation

EDUCATION

May 1984 B.S., Wildlife and Fisheries Science, Texas A&M University
August 1990 M. Ed., Curriculum and Instruction (Science Education), Texas A&M University
May 1993 Ph.D., Curriculum and Instruction (Science Education), Texas A&M University

RECENT SELECTED PROFESSIONAL EXPERIENCE

Current Professor, Department of Curriculum & Instruction, Texas A&M University Commerce
2001 – 2010 Associate Professor, Department of Curriculum & Instruction, Texas A&M University
Commerce
2007-2008 Interim Assistant Dean, College of Education and Human Services & Associate
Professor, Department of Curriculum & Instruction, Texas A&M University Commerce
2005 – 2007 Assistant Department Head & Associate Professor, Department of Curriculum & Instruction, Texas
A&M University Commerce.
2001 – 2002 Interim Department Head & Associate Professor, Department of Elementary Education, Texas
A&M University Commerce.
1997 – 2001 Assistant Professor, Department of Elementary Education -- Texas A&M University Commerce.

RECENT PROFESSIONALLY RELATED EXPERIENCE, COMMITTEE MEMBERSHIPS & SERVICE

Current Treasurer, the Southwest Association for Science Teacher Education
Current Editorial advisory team for the Electronic Journal of Science Education
Current (since 2003) Editorial Board for the Journal of Elementary Science Education
Current (since 1996) Manuscript Reviewer for School Science and Mathematics
Current Member, Office of Sponsored Programs Advisory Committee
Current Member, Council on Educator Preparation
Current Member, Planetarium Oversight Committee
Current Member, Admission and Retention of Students Committee (Faculty Senate)
Current Program Area Coordinator, MED in the Art of Teaching
Current Chair, Curriculum & Instruction Departmental Appeals Committee
Current Member, Teacher Education Admission, Retention and Appeals Committee
Current (since 2009) Member, University Studies Council

2015-2018	Association for Science Teacher Education Board Member at Large
2014-2016	School Science and Mathematics Association President
2016	Chair, College of Education and Human Services Promotion and Tenure Committee
2010-14	University Representative, College & Career Readiness Standards – Mathematic & Science
2013-14	Program Chair for the 2014 Annual Meeting of the Association for Science Teacher Education.
2009-13	School Science and Mathematics Association newsletter editor & ex officio Board Member
2003-2011	Southwest Association for Science Teachers Education, Director at Large.
2008-2010	PRISE – Policy Research in Science Education (NSF grant at TAMU) advisory committee
2010	Grant reviewer, Texas Education Agency, T-STEM Center grants Cycle 2
2007	President, Southwest Educational Research Association
2006-2009	Board of Directors, Association for Science Teacher Education
2006-2009	Board of Directors, School Science and Mathematics Association
2006-2009	Chair School Science & Mathematics Association Publications Committee
2006-2009	Co-chair Association for Science Teacher Education Technology Committee
2005-10	Proposal reviewer for Association for Science Teacher Education Annual Meeting
1999- 2010	External Grant Evaluator for Teacher Quality/Eisenhower Grants at TAMU Texarkana

RECENT PUBLICATIONS

- Hott, Dibbs, Raymond, Martin, Reid, Naizer (2018). Practitioner Perceptions of Algebra Strategy and Intervention Use to Support Students with Mathematics Difficulty or Disability in Rural Texas. Submitted to *Rural Special Education Quarterly*. Revise & Resubmit
- Fields, M., Regian, S., Sinclair, B. & Naizer, G. (2017). *Examining Transfer: Effects of Professional Development on the Implementation of Inquiry-based Instruction*. In M. J. Mohr-Schroeder, & S. S. Harkness (Eds.), Proceedings of the 117th annual convention of the School Science and Mathematics Association (Vol. 4). Lexington, KY: SSMA.
- Marble, S., Kamen, M., Naizer, G. & Weinburgh, M. (2016). Allowing Our Professional Knowledge of Pre-Service Science Teacher Education to be Enhanced by Self-Study Research: Turning a Critical Eye on Our Practice. In *Self-Studies and Elementary Science Methods Courses*.
- Naizer, G., Hawthorne, M., & Henley, T. (2014) Narrowing the Gender Gap: Enduring Changes in Middle School Students' Attitude Toward Math, Science and Technology. *Journal of STEM Education* 15 (3) 29-34.
- Sinclair, B. & Naizer, G. (2012, Fall). Bringing more earth science knowledge to teachers. Texas Mining Magazine.
- Sinclair, B. B., Naizer, G. L., Ledbetter, C. (2011). Observed Implementation of a Science Professional Development Program for K-8 Classrooms. *The Journal of Elementary Science Education* 22:579-594
- Walker, C., Zeek, C., Foote, M., & Naizer, G. (2008) Recreating Teacher Education through Long-Term Partnerships. In I.N. Guadarrama, J.M. Ramsey, & J.L. Nath (Vol. Ed.), University and School Connections: Professional Development Schools Research Book Series, Volume III (pp. 203-220). Charlotte, NC: Information Age Publishing.
- Naizer, G. L., Bell, G. L., West, K., Chambers, S. (2003) Inquiry Science Professional Development with a Science Summer Camp for Immediate Application. The Journal of Elementary Science Education 15 (2) 31-37.
- Bell, G.L., Naizer, G.L., Cardwell, M., West, K., Petty, C., Boles, K., Myers, D., Mitchell, H., Chambers, S. (May 2003). A vision for P-8th Grade Science Education Enhancement through Partnership. Texas Study of Secondary Education 12(2) 8-13.
- Naizer, G. (2001). Creating community in the elementary classroom: A question of peer assessment in science. In D. Tippins, T. Koballa & B. Payne (Eds.). Learning from cases: Unraveling the complexities of elementary science teaching. Needham Heights, MA: Allyn & Bacon Publishing.

RECENT PRESENTATIONS (PEER REVIEWED)

- Fields, M., Regian, S., Sinclair, B. & Naizer, G. (2017). *Examining Transfer: Effects of Professional Development on the Implementation of Inquiry-based Instruction*. Presentation at the Annual Convention of the School Science and Mathematics Association. Lexington, KY.

- Naizer, G. & Weinburgh, M. (2017). *Our Journey of Understanding through Lesson Study*. Presentation at the Annual International meeting of the Association for Science Teacher Education. Des Moines, IA
- Naizer, G. & Glaze, A. (2016). The T-RES Teacher Residency Program: an Effective Alternative in Science Teacher Preparation. Poster accepted for presentation at the Annual International meeting of the Association for Science Teacher Education. Reno, NV.
- Naizer, G., Sinclair, B., & Ledbetter, C. (2015). The Effects of Professional Development on Student Test Scores. Presentation at the Annual Convention of the School Science and Mathematics Association. Oklahoma City.
- Mittag, K. & Naizer, G. (2015). *A Hands-on Mathematics Function Activity Integrating Science Gas Laws*. Presentation at the Annual Conference of the National Council of Teachers of Mathematics. Boston
- Croissant, H. & Naizer, G. (2015). Mathematics Classroom Environment and Student Self-Efficacy in Elementary, Middle and High School. Paper presented at the Annual Convention of the School Science and Mathematics Association. Oklahoma City.
- Croissant, H. & Naizer, G. (2014). *Classroom Environment Influence on Student Self-Efficacy in Mathematics*. Paper presented at the Annual Convention of the School Science and Mathematics Association. Jacksonville, FL.
- Naizer, G., DeKock, M., Davis, D. (2014). *3-D Prining as an Instructional Tool*. Presentation at the Annual Convention of the School Science and Mathematics Association. Jacksonville, FL.
- Sparks, D., & Naizer, G. (2014). Reducing stereotype threat in the science classroom. Paper presented at the Annual International meeting of the Association for Science Teacher Education, San Antonio.
- Naizer, G., Sinclair, B. & Reed, K. (2014). *Elementary Science Teachers Content Knowledge and Confidence in Teaching Science*. Paper presented at the annual meeting of the Southwest Educational Research Association, New Orleans.
- Naizer, G. & Mittag, K. (2013). *Basics of Grant Writing for Beginners*. Presentation at the Annual Convention of the School Science and Mathematics Association. San Antonio.
- Popejoy, K. & Naizer, G. (2013). *Using the iPad in Science Methods: Next Steps!* Presentation at the Annual Convention of the School Science and Mathematics Association. San Antonio.
- Naizer, G. & Sinclair, B. (2013). *Teacher Perceptions about Field Site Visits During Science Teacher Professional Development*. Presentation at the Annual Convention of the School Science and Mathematics Association. San Antonio.
- Sinclair, B. & Naizer, G. (2013). *Investigating science teacher perceptions about their curriculum & teaching*. Presented at the Annual Meeting of the Southwest Educational Research Association. San Antonio
- Szabo, S. Sinclair, B., & Naizer, G. (2013). *Science Summer Institute: Using content and activities in the classroom*. Paper presented at the Annual Meeting of the Southwest Educational Research Association. San Antonio.
- Meyer, J. & Naizer, G. (2012). *Supporting New STEM Teachers from Recruitment to Induction*. Paper presented at the Association for Science Teacher Education International Conference. Clearwater, FL.
- Sinclair, B. & Naizer, G. (2012). *Perceptions about Industrial Minerals Field Site Visits as Part of a Science Teacher Professional Development Program*. Presented at the Annual Meeting of the Southwest Association for Science Teacher Education. Houston.
- Naizer, G., Hawthorne, M., Manning, C., & Haas, L. (2012). *Project M2T2: Middle School Students' Changes in Attitude Toward Math, Science and Technology*. Paper presented at the Annual Meeting of the Southwest Educational Research Association. New Orleans.
- Naizer, G., Sinclair, B., Reid, M. (2011). *Changes in Teacher Perceptions of Effective Lessons*. Paper presented at the Annual Meeting of the Southwest Educational Research Association. San Antonio.
- Naizer, G., Sinclair, B. & Reid, M. (2011). *Effective Lessons: Comparing Teacher Definitions and Lesson Descriptions*. Paper presented at the Annual Meeting of the School Science & Mathematics Association. Colorado Springs.
- Whalen, K. & Naizer, G. (2011). *The Role of Text in 5th Grade Science Instruction*. Paper presented at the Annual Meeting of the School Science & Mathematics Association. Colorado Springs.
- Naizer, G. (2011). *University Initiatives to Generate Student Interest in Science, Technology and Mathematics Among Rural Youth*. Paper presented at the Hawaii International Conference on Education. Honolulu.
- Naizer, G., Reid, M., & Sinclair, B. (2010). *Teacher Visions of Effective Lessons*. Presentation at the Annual Convention of the School Science and Mathematics Association. Ft. Meyers, FL.

- Snyder, C., Naizer, G., O'Conner, K. (2010). *Project STEEM: Promoting Participation in STEM Careers Among Rural Youth*. Paper presentation at the American Educational Research Association. Denver.
- Sinclair, B., Naizer, G., Ledbetter, C. (2009). *Perceived lasting effects of science professional development*. Paper presented at the Annual Meeting of the School Science and Mathematics Association, Reno.
- Naizer, G., Price-Blount, K., Littleton, P., & Scott, T. (2008). *Follow-up Conversations with TxCETP Scholars*. Paper presented at the Annual Meeting of the School Science and Mathematics Association, Raleigh Durham, NC.
- Naizer, G., Sinclair, B., & Ledbetter, C. (2007). *A teacher professional development program for K-8 science*. Paper presented at the Annual Meeting of the School Science and Mathematics Association, Indianapolis.
- Mittag, K. & Naizer, G. (2007). *Integrated Mathematics & Science Hot Wheels Activity: Determining Speed, Velocity, & Acceleration*. Presentation at the Annual Meeting of the School Science and Mathematics Association, Indianapolis.

RECENT GRANTS (External competitive)

- 2017, National Science Foundation. *Examining Algebra Goals of Learners and Educators to Support Outstanding Algebra Readiness (Project EAGLE SOAR)*. Co-PI with Brittany Hott & Rebecca Dibbs. Amount Requested \$450,000. Submitted 11-15-17
- 2017, National Science Foundation. *Noyce Master Physics Teachers in North and South Texas*. Co-PI with William Newton & Robynne Lock. Amount Requested \$1,196,332. Under Review
- 2017, Teacher Quality Grant Administered by the Texas Higher Education Coordinating Board, *Integrated Mathematics and Science for 4th-6th Grade*. Co-PI's Becky Sinclair, Melanie Fields, Kit Price Blount. Continuation Funded for \$106,352.
- 2016, Texas Higher Education Coordinating Board. *Texas Teacher Residency Program (T-RES) Phase2: An Apprenticeship Model for Texas*. Funded for \$1,396,421
- 2016, National Science Foundation, NOYCE. *A Community-Based Approach to Building the Capacity of Physics Teacher Preparation at Texas A&M University-Commerce*. Co-PI with William Newton & Robynne Lock. Award # 1557398. Funded for \$74,981.
- 2016, Teacher Quality Grant Administered by the Texas Higher Education Coordinating Board, *Integrated Mathematics and Science for 4th-6th Grade*. Co-PI's Becky Sinclair, Melanie Fields, Kit Price Blount. Funded for \$150,000.
- 2015, National Science Foundation, NOYCE. *A Community-Based Approach to Building the Capacity of Physics Teacher Preparation at Texas A&M University-Commerce*. Co-PI with William Newton & Robynne Lock. Amount requested \$74,941 (pending)
- 2015, Teacher Quality Grant Administered by the Texas Higher Education Coordinating Board, *Integrated Mathematics and Science for 4th-6th Grade*. Co-PI's Becky Sinclair, Melanie Fields, Kit Price Blount. Requested \$398,175 – Under Review.
- 2014, Texas Higher Education Coordinating Board. *Texas Teacher Residency Program (TRes): An Apprenticeship Model for Texas*. Funded for \$1,290,000.
- 2014, National Science Foundation, Improving Undergraduate STEM Education (IUSE). Collaborative Learning and Research in STEM Student and Teacher Preparation. Co-PI with Kit Price-Blount, Stephen Starnes, Will Newton. Amount requested \$1,936,910. (Not funded)
- 2014, National Science Foundation, Noyce Capacity Building. *A Community-Based Approach to Building the Capacity of Physics Teacher Preparation at Texas A&M University-Commerce*. Co-PI with Will Newton, Robynne Lock, Kent Montgomery. Amount requested \$294,592. (Not funded)
- 2013, Mathematics and Science for Middle School Teachers. Submitted to the Teacher Quality Grant Administered by the Texas Higher Education Coordinating Board. Co-PI with Dr. Pamela Webster & Dr. Cheri Davis. Amount requested \$478,099. (Not funded)
- 2012, Northeast Texas STEM Center. Texas Higher Education Coordinating Board; Science, Technology, Engineering & Mathematics (STEM) Center for Teacher Professional Learning. Amount requested \$740,166. (Not funded)
- 2012, Teacher Quality Grant (Continuation) Administered by the Texas Higher Education Coordinating Board. *Geology for 4-8th Grade Teachers*, Co-PI with Dr. Becky Sinclair. Funded for \$92,820.

- 2012, (Varadraj Gurupur PI) National Science Foundation grant submitted. STEM Analysis and Learning Tool (SALT): Assessing and Guiding Future Generation of STEM Fields. Amount requested \$182,332. (Not funded)
- 2011, MASTA Grant awarded supplement/extension for additional \$150,000.
- 2011, Teacher Quality Grant Administered by the Texas Higher Education Coordinating Board. Geology for 4-8th Grade Teachers, Co-PI with Dr. Becky Sinclair. \$217,489 requested; funded for \$114,400.
- 2011, (Thomas Faulkenberry PI) National Science Foundation grant submitted in the ITEST solicitation. PRIDE: Partnerships in Research to Inspire Developing Engineers, \$908,068. (Not funded)
- 2011, (Sang Suh PI) National Science Foundation Planning grant submitted in the Computer Education for the 21st Century solicitation. Computer Programming Technology Training Center, \$192,345. (Not funded)
- 2011, (Sang Suh PI) National Science Foundation grant submitted in the Research Experiences for Teachers in Engineering and Computer Science solicitation. RET in Engineering and Computer Science – Computational Science, \$448,143. (Not funded)
- 2010, Improving STEM Skills for Rural Youth in Northeast Texas (STEM Skills). U.S. Department of Education. Award amount \$100,000.
- 2010, Time Shifting Mathematics Instruction for Generation NeXt. Co-Pi, (Mark Reid, PI). National Science Foundation Discovery Research K-12. Amount requested \$447,887. (Not funded)
- 2009, Texas A&M Commerce Math & Science Teacher Academy. Co-PI with Dr. Faulkenberry (Mathematics). Texas Higher Coordinating Board. Award amount \$685,000.
- 2008, *Maximizing Motivation, Targeting Technology* (M^2T^2). National Science Foundation Innovative Technology Experiences for Students & Teachers program. Award amount \$992,663.
- 2008, Texas A&M Commerce Math & Science Teacher Academy. Co-PI with Dr. Kreminski (Mathematics). Texas Higher Coordinating Board. Amount requested \$319,850. (Not funded – resubmitted & funded in 2009)
- 2008, Improving Science & Mathematics Education in Texas (ISMET). Submitted by invitation to the Greater Texas Foundation. Collaborative work with a team of Texas A&M-Commerce faculty & the University Foundation Office. Amount requested \$2.97 million. (Not funded)
- 2008, Lead author of Letter of Inquiry submitted February 1 to the Greater Texas Foundation for \$3,000,000 over 6 years in collaboration with the College of Arts & Sciences & the University Foundation Office. Invited to submit full proposal.
- 2007, Texas Regional Collaborative for Excellence in Science Education Grant funded in collaboration with Region 10 ESC. Region 10 serves as the fiscal agent. Award amount \$110,000
- 2007, Teacher Quality Grants Program coordinated by the Texas Higher Education Coordinating Board, Elementary Earth Science Enhancement: Northeast TX. Co-PI with Dr. Becky Sinclair. Award amount \$82,947.
- 2007, Teacher Quality Grants Program coordinated by the Texas Higher Education Coordinating Board, Elementary Earth Science Enhancement: Greenville. Co-PI with Dr. Becky Sinclair. Amount requested \$82,947 (not funded).
- 2006, The Greater Texas Foundation. Project STEEM: Student and Teacher Development. Co-PI with Dr. Ben Doughty, Dr. Rick Kreminski, & Dr. Sam Saffer. Award amount \$1.5 million.
- 2006, Teacher Quality Grants Program coordinated by the Texas Higher Education Coordinating Board. Northeast Texas Earth/Space Science Enhancement, B. Co-PI with Dr. Glenda Love Bell. Award amount \$82,887.
- 2006, Teacher Quality Grants Program coordinated by the Texas Higher Education Coordinating Board. Northeast Texas Earth/Space Science Enhancement, A. Co-PI with Dr. Glenda Love Bell. Amount requested \$82,887 (not funded).
- 2005, Teacher Quality Grants Program coordinated by the Texas Higher Education Coordinating Board. Science Education Enhancement: Quality teaching for All Learners, A. Co-PI with Dr. Glenda Love Bell. Award amount \$81,698.
- 2005, Teacher Quality Grants Program coordinated by the Texas Higher Education Coordinating Board, Science Education Enhancement: Quality teaching for All Learners, B. Co-PI with Dr. Glenda Love Bell. Award amount \$81,698.
- 2005, Texas Regional Collaborative for Excellence in Science Education Grant funded in collaboration with Region 10 ESC. Region 10 serves as the fiscal agent. Award amount \$225,000
- 2004, Submitted for funding to the National Science Foundation. Preservice Teacher Transition Points: Understanding Critical Components of the Teacher Professional Continuum (PTTP). Co-PI with Dr. Price-Blount, TAMU Corpus, and others. Amount requested \$2.1 million. (Not funded.)

- 2003, Teacher Quality Grants Program coordinated by the Texas Higher Education Coordinating Board, Quality teaching for the improvement of math and science collaborative: Greenville, Bland ISDs. Co-PI with Dr. Glenda Love Bell. Award amount \$78,830.
- 2003, Teacher Quality Grants Program coordinated by the Texas Higher Education Coordinating Board, Quality teaching for the improvement of math and science collaborative: Commerce, Quinlan, Boles ISDs. Co-PI with Dr. Glenda Love Bell. Award amount \$78,830.
- 2002, Texas Eisenhower Higher Education Grants Program, Inquiry-based instruction, connected learning in elementary science. Co-PI with Dr. Glenda Love Bell. Award amount \$78,978.
- 2001, Texas Eisenhower Higher Education Grants Program, Inquiry-based instruction, connected learning in elementary science. Co-PI with Dr. Glenda Love Bell. Award amount \$74,463.
- 2001, NASA Opportunities for Visionary Academics Implementation Planning Grant proposal, Co-PI with Dr. Glenda Love Bell. Award amount \$10,060.
- 2000, Texas Eisenhower Higher Education Grants Program, Elementary Physical Science. Proposed project consists of the development and presentation of a three week content and pedagogy teacher enhancement institute for elementary teachers. Amount requested \$68,398. (Not funded)
- 2000, TAMUS Inter-Institutional Collaborative Research and Scholarship Program, Proposed project will assist in the development of an outdoor learning environment for Commerce ISD. Co-PI with Alan Sowards, Stephen F. Austin State University. Amount requested \$5000. (Not funded)
- 2000, NASA Opportunities for Visionary Academics Implementation Planning Grant proposal, Co-PI with Dr. Glenda Love Bell. Amount requested \$18,025 (Not funded)