



TEXAS A&M UNIVERSITY

COMMERCE

Curriculum Vita September 2024

Instructor: Becky Barton Sinclair, Ph.D., Professor
Academic Department: Curriculum & Instruction

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EDUCATION

Post-Doctoral Coursework (18 hrs)
Education Administration – Principal’s Certification
The University of Texas at Arlington, Arlington, Texas; 2002

Doctor of Philosophy, Science Education
Curtin University of Technology, Perth, Western Australia, AU; 2000
Dissertation: Assessing, Describing and Changing Classroom Environments in Urban Middle Schools

Masters of Arts in Teaching, Science Education
The University of Texas at Dallas, Richardson, Texas, USA; 1994

Bachelor of Science, Elementary Education (Earth Science and History)
Texas A&M University, College Station, Texas, USA; 1988

PROFESSIONAL LICENSES

Texas Provisional Elementary (Grades 1-6) Earth Science	1988	Life Term
Texas Provisional Elementary (Grades 1-6) History	1988	Life Term
Texas Provisional Elementary (Grades 1-6) General	1988	Life Term
Texas Provisional Secondary (Grades 6-12) Life-Earth Science	1998	Life Term
Texas Professional Principal (Level K-12)	2003	2008

TEACHING EXPERIENCE

2020 - Present - Professor, Dept. of Curriculum and Instruction, Texas A&M University - Commerce

2012 – 2020 - Associate Professor, Dept. of Curriculum and Instruction, Texas A&M University - Commerce

2006 - 2012 - Assistant Professor, Dept. of Curriculum and Instruction, Texas A&M University - Commerce

2003 – 2006 – Rockwall ISD, Classroom Teacher & Science Lead, Rochell Elementary

2002 – 2003 – Plano ISD, Classroom Teacher (Fall) and Asst. Principal (Spring), Bowman Middle School

2000 – 2001 – Garland ISD, Campus Math Consultant, Houston Middle School and Science Lead and Classroom Teacher, Steadham Elementary

1996 - 1999 - Senior Lecturer, Dept. of Science and Mathematics Education, University of Texas at Dallas, Richardson, Texas

1994 -1995 - Senior Lecturer, College of Education, University of Texas at Arlington

Summer 1994 - Adjunct Professor, College of Education, University of North Texas

1989 – 1994 – Garland ISD, Classroom Teacher, Houston Middle School and Ethridge Elementary

Summer 1989 & 1990 - Teacher and Counselor for “Sea Camp,” Texas A&M University at Galveston, Galveston, Texas

Professionally Related

1994 - 2005 (Part Time) - Executive Vice President, SCE Associates, Richardson, Texas

SELECTED HIGHLIGHT PUBLICATIONS
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Sinclair, B. B., Long, C. S., Szabo, S. & Naizer, G. (2023). Investigating equitable representation in science textbook portrayal of scientists. *Science & Education*, 1-14.
<https://doi.org/10.1007/s11191-023-00482-z>

Szabo, S., Sinclair, B.B., Long, C.S., Naizer, G. (2023). Revisiting the readability of K-8 Science textbooks: Publishers’ failures and implications for classroom teachers. *Delta Kappa Gamma Bulletin* (89)5, 26-34.

Long, C. S., Sinclair, B. B., Fraser, B.J., Larson, T. R., & Harrell, P.E. (2021). Pre-service teachers’ perceptions of learning environments before and after pandemic-related course disruption. *Learning Environments Research: An International Journal*.

- Long, C., Fraser, B. & Sinclair, B. (2020). Differential effectiveness of alternative middle school science sequences for students of different ethnicities. *Learning Environment Research: An International Journal* 23(1), 87-99.
- Szabo, S. & Sinclair, B. B. (2019, Spring). Readability of the STAAR test is still misaligned. *Schooling*, 10(1). pp. 1-12.
Unique Impact: In spring 2019, this article was disseminated to members of the Texas Legislature, Governor and Commissioner of Education and was influential at the 86th Legislative Session in the creation of HB 3 and HB 3906. It was cited in numerous media outlets, including *The New York Times*, *Associated Press*, *Washington Post* and *Texas Monthly*.
- Naizer, G., Sinclair, B. & Szabo, S. (2017). Examining the sustainability of effective professional development using a workshop design. *The Delta Kappa Gamma Bulletin – International Journal for Professional Educators*, 83(5), 37-48.
- Sinclair, B., Szabo, S., Redmond, A. & Sennette, J.D. (2013, Spring). Investigating perceptions of teachers and teaching using the Draw-a-Teacher Checklist. *Issues in Teacher Education*, 22(1), pp. 105-123.
- Sinclair, B. & Naizer, G. (2012, Fall). Bringing more earth science knowledge to teachers. *Texas Mining Magazine*. pp. 17-19.
- Szabo, S. & Sinclair, B. (2012, Fall). STAAR Reading Passages: The readability is too high. *Schooling*, 3(1). pp. 1-14.
- Stetson, E., Stetson, R., Sinclair, B. & Nix, K. (2012, Spring). Home visits: Teacher reflections about parental involvement, student achievement and behavior. *Issues in Teacher Education*, 21(1). pp.21-37.
- Sinclair, B., Naizer, G. & Ledbetter, C. (2010, July – Online) (2011 – Hardcopy Publication). Observed implementation of a science professional development program in K-8 classrooms, *Journal of Elementary Science Education*, 22, pp. 579-94.
- Sinclair, B. B., and Fraser, B.J. (2002, December). Assessing, describing and changing classroom environments in urban middle schools, *Learning Environment Research: An International Journal*, 5(3), pp. 301-328.

RESEARCH GRANTS and AWARDS

2016 - 2017, *Integrated Mathematics and Science for 4th-6th Grade*. Teacher Quality Grant Administered by the Texas Higher Education Coordinating Board, Co-PIs: Gil Naizer, Becky Sinclair, Melanie Fields, Kit Price Blount. Funded \$150,000 (2016) and \$106,352 (2017).

2012 - 2013, *Geology for 4-8th Grade Teachers*, Teacher Quality Grant. Administered by the Texas Higher Education Coordinating Board. Co-PIs: Gil Naizer & Becky Sinclair. Funded- \$124,400 (2012) and \$92,820 (2013).

2007, *Elementary Earth Science Enhancement: Northeast TX*. Teacher Quality Grants Program coordinated by the Texas Higher Education Coordinating Board. Co-PIs: Gil Naizer & Becky Sinclair. Funded- \$82,947.

Co-Author, Consultant and Instructional Team Member for Texas Regional Collaborative for Excellence in Science Education Grants funded in collaboration with Region 10 ESC. Region 10 served as the fiscal agent.

2012, *Physical Science Professional Development for Teachers of Grades 4-8*. Funded- \$190,000.

2011, *Environmental, Biological and Earth Science Technology for Secondary Level Teachers*. Funded- \$192,058.

2010, *Earth Science & Technology for Secondary Level Teachers*. Funded- \$150,000.

2009, *Earth Science: Technology and Industrial Minerals for Secondary Level Teachers*. Funded- \$150,074 with additional \$26,000 granted during academic year.

2008, *Chemistry, Physics and Earth Science for Secondary Level Teachers*. Funded- \$110,000.

2007, *Earth Science for Elementary Teachers*. Funded- \$112,000.

PRESENTATIONS

Juried International and National Presentations

Long, C. S., Sinclair, B. B., Araujo, J. J., Fraser, B. J. & Subramaniam, K. (2024, April) Actual and Preferred Learning Environments in Science Methods Classes as Perceived by Different Ethnicities, presented at the Annual Meeting of the American Educational Research Association. Philadelphia, PA.

Long, C.S., Martin-Dunlop, C., Fraser, B.J., Sinclair, B. B., Subramaniam, K. (2023, April) Using Learning Environment Ideas in Action Research in Science Education Classes, presented at the Annual Meeting of the American Educational Research Association. Chicago, IL.

Subramaniam, K., Long, C. S., Khan, N., Asim, S., Losoya, S., Ham, C., Sinclair, B. B., & Carden, M. R. (2023, January). Seeking a Broader Asset-based and Diversified View of Pre-service Elementary Teachers' Domain-specific Prior Knowledge of Engineers. [Themed Paper Set – 1 hour Presentation] Presented at the Association for Science Teacher Educators Annual Conference, Salt Lake City, UT.

- Long C. S., Sinclair, B. B., Subramaniam, K., Carden, M., Losoya, S., (2023, January). Using the Draw a STEM Professional Checklist to Examine Preservice Teachers' Perceptions of Science Teachers, Scientists and Engineers, presented at the Association for Science Teacher Education Annual Conference, Salt Lake City, UT.
- Long, C. S., Sinclair, B. B., Fraser, B. J. & Subramaniam, K. (2022, April) Differential Impact of COVID-19 on the Learning Environments of Preservice Teachers by Gender and Ethnicity, presented at the Annual Meeting of the American Educational Research Association. San Diego, CA.
- Long, C. S., Sinclair, B. B., Naizer, G., & Subramaniam, K. (2021, October). The Impact of Transition to Remote Instruction on Learning Environments in Science Methods Courses, presented at the Annual Meeting of the School Science and Mathematics Association (Virtual).
- Long, C., Sinclair, B., Fraser, B., Subramaniam, K., & Harrell, P. (2021, April). Pre-service Teachers' Perceptions of Learning Environments Before and After Pandemic-related Course Disruption, presented at the American Educational Research Association, Virtual.
- Long, C., & Sinclair, B. (2020, November). Investigating the Changes in Attitudes Toward Science Among Pre-Service EC-6 Teachers, presented at the National Conference for the School Science and Mathematics Association, Minneapolis, MN (Virtual).
- Long, C., Sinclair, B. & Naizer, G. (2020, January). How are Scientists Portrayed in Texas K-8 Science Textbooks? Poster presented at the International Conference for the Association of Science Teacher Educators, San Antonio, TX.
- Long, C., Sinclair, B. & Naizer, G. (2018, October). Evaluating Textbook Images of Scientists, presented at the National Conference for the School Science and Mathematics Association, Little Rock, AR.
- Naizer, G., Sinclair, B. & Corp, A. (2018, October). Ideas and Issues in Online Teaching of Math and Science Education, presented at the National Conference for the School Science and Mathematics Association, Little Rock, AR.
- Long, C., Fraser, B. & Sinclair, B. (2018, March). Differential Effectiveness of Alternative Middle-School Science Sequences for Students of Different Ethnicities, presented at American Educational Research Association, New York, NY.
- Regian, S., Fields, M., Sinclair, B. & Naizer, G. (2017, October). Examining Transfer: Effects of Professional Development on the Implementation of Inquiry-Based Instruction, presented at the National Conference for the School Science and Mathematics Association, Lexington, KY.

Sinclair, B., Naizer, G. & Fields, M. (2016, October). Teaching STEM to In-service Teachers via Geology-based Field Experiences (Syllabus Share), presented at the National Conference for the School Science and Mathematics Association, Phoenix, AZ.

Sinclair, B., Naizer, G. & Ledbetter, C. (2015, October). The Effects of Professional Development on Student Test Scores, presented at the National Conference for the School Science and Mathematics Association, Oklahoma City, OK.