

KENNETH J. FLEMING, JR., PhD

Texas A&M University
College of Education and Human Development
Department of Teaching, Learning, and Culture
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EDUCATION

- Ph.D. Texas A&M University, College Station, TX, May 2017
Program Area: Curriculum & Instruction, emphasis in Science Education
Committee Chairs: Dr. Bugrahan Yalvac and Dr. Carol Stuessy
Dissertation: Authenticity as an Element of Science Exhibit Design
- M.Ed. Texas A&M University, College Station, TX, August 2013
Program Area: Curriculum & Instruction, emphasis in Science Education
- B.A. University of Maryland, University College, December 2008
Program Area: History
- A.A.S. Community College of the Air Force, December 2008
Program Area: Communications Applications and Technology
- A.A. Defense Language Institute, Monterey, CA, June 2004
Program Area: Korean Language & Culture

PROFESSIONAL EXPERIENCE

Texas A&M University, College Station

Spring 2014-Current

Instructional Assistant Professor, Dept of Teaching, Learning, & Culture, Texas A&M University

Undergraduate Courses

Elementary Science Methods (TEFB 413) (face-to-face, w/field supervision)
Middle Grades Science Methods (MEFB 470) (face-to-face, w/field supervision)
Secondary Science & Math Methods (TEFB 406/407) (face-to-face)
Inquiries in Physical Sciences (MASC 320) (face-to-face, online)
Inquiries in Life & Earth Sciences (MASC 420) (face-to-face)
Problem Solving in Mathematics (MASC 351) (face-to-face, online)
Integrated Mathematics (MASC 450) (face-to-face, online)
Teaching Skills II (TEFB 324) (face-to-face, online)

Graduate Courses

Cultural Foundations of Education (EDCI 602) (online)
Analysis of Teaching Behaviors (EDCI 673) (online)
Society and Education in World Perspective (EDCI 645) (online)
Learning Theory and Young Children (EDCI 656) (face-to-face)
Instructional Strategies for Middle & High School (TEED 649) (summer)
Mixed Methods Research in Curriculum & Instruction (EDCI 661) (online)

June 2017-Dec 2021

Assistant Research Scientist, Project Coordinator, LISTO (longitudinal RCT study on the measurable impact of virtual coaching and mentoring activities on fifth grade science teachers and economically disadvantaged students at schools across Texas; \$15M forward-funded i3 federal Department of Education grant)

- Developed technology-enhanced literacy-infused science curriculum (5th grade)
- Conducted professional development for science teachers (5-8), administrators
- Created research instruments; collected and analyzed quan and qual data
- Supervised graduated research assistants, undergraduate student workers
- Organized interactive sessions and content for professional development events

Spring 2015-Summer 2015

Graduate Research Assistant, Education Research Center, Texas A&M University

- Drafted high impact practice grant proposal (funded \$30K)
- Created research-based graduate strand for Technology & Teacher Education
- STEM education/informal education reviewer; *Learning Environments Research*
- Assisted graduate seminar; mentored junior researchers study design/data analysis
- Co-authored and edited challenges in teacher education book chapter

Fall 2013-Fall 2014

Graduate Research Assistant, Educator Preparation Program Curriculum Re:Design

- Collected/analyzed institutional data, landscape of teacher education in Texas
- Evaluated peer institutions by production numbers, specialization, nat'l ranking
- Created learning outcomes/curriculum maps; circulated resources for approval
- Voice of the program; presented iterations to dept and college-level committees

Community Homeschool Center

Private Instructor, Community Homeschool Center, Bryan, Texas (2012-current)

- Developed audience-appropriate course materials
- Developed marketing strategies / managed budget

Bryan Independent School District

Classroom Teacher, Anson Jones Elementary, Bryan ISD, Texas (2009-2012)

PUBLICATIONS

Esparza, A.M., **Fleming, K.**, Zhang, H., Pang, H., Guerrero, C., Lara-Alecio, R., Irby, B., & Tong, F. (2023). Investigating Teachers' Use of Literacy-Infused Science Strategies: A Mixed Methods Study. *Discovery Education* 2(31). <https://doi.org/10.1007/s44217-023-00050-1>

Fleming, K., Esparza, A.M., Irby, B., Lara-Alecio, R., Tong, F., & Guerrero, C. (2022). Windows into thinking: Scaffolding scientific explanations helps overcome barriers to writing. *Science and Children*, 59(6), 20-26.

Akleman, E., Barroso, L., Capraro, M., Creasy, T., **Fleming, K.**, He, W., Hong, L., Williams, A. (2019). Recycling plastics: Middle school students create solutions during a summer camp. *European Journal of STEM Education*.

- Etchells, M., Ketsetzi, A., **Fleming, K.**, Meister, S., & Waxman, H. (2017). Identifying key factors influencing violence directed toward K-12 teachers in American schools. *Electronic International Journal of Education, Arts, and Science*, 3(6), 19-35.
- Webber, N., Waxman, H. & **Fleming, K.** (2015). With its high teacher costs, is Teach for America a viable option for schools? *The Conversation*, April 2, 2015. <http://theconversation.com/with-its-high-teacher-cost-is-teach-for-america-a-viable-option-for-schools-37695>
- Lyons, L., **Fleming, K.**, Etchells, M., Ging, A., Ketsetzi, A. & Waxman, H. (2015). Evaluating the Implementation of Core Practices in Teacher Education Programs in Texas. *Texas Forum on Teacher Education*, 5, 33-48. Available at <http://www.txate.org/pdf/publications/2015/Lyons-Forum2015.pdf>
- Fleming, K.** (2014). Assessment of TLAC Undergraduate Educator Preparation Program (internal distribution)

PRESENTATIONS

National or International Conferences

- Esparza, A.M., **Fleming Jr., K.**, Pang, H., Zhang, H., Guerrero, C.L., Lara-Alecio, R., Irby, B.J., & Tong, F. (2021, April). Investigating Literacy-Infused Science Strategies Enactment Among 7th Grade Science Teachers. Paper presented at the AERA international meeting. April 8-12.
- Esparza, A.M., **Fleming Jr., K.**, Tang, S., Guerrero, C.L., Lara-Alecio, R., Irby, B.J., Tong, F., & Wang, Z. (2020, April). Science Teachers' Growth Trajectory in Engagement in Continuous Online PD: A Large-Scale RCT Perspective. Paper accepted for presentation at the AERA international meeting. San Francisco, CA: April 17-21. [conference canceled]
- Fleming, K.**, Esparza, A.M., Guerrero, C., Irby, B., Tong, F., & Lara, R. (2020). Scaling up research on family involvement in science learning. Paper presentation. American Education Research Association 2020 Annual Conference, San Francisco, CA, April 17-21.
- Esparza, A.M., **Fleming, K.**, Tang, S., Guerrero, C.L., Lara-Alecio, R., Irby, B.J., Tong, F., Wang, Z. (2020). "Science Teachers' Growth Trajectory in Engagement in Continuous Online PD: A Large-Scale RCT Perspective." Paper Presentation. American Educational Research Association 2020, San Francisco, CA. April 17-21.
- Fleming, K.**, Etchells, M., Sonnenburg, S., Jabbari, N., & Waxman, H. (2015). A content analysis of current topics and issues in teacher education. Paper presentation. American Education Research Association 2016 Annual Conference, Washington, D.C., April 8-12.
- Fleming, K.**, Lyons, L., Etchells, M., & Waxman, H. (2015). Evidence of leadership as a high quality indicator for teacher certification program evaluation. Paper presentation. American Education Research Association 2016 Annual Conference, Washington, D.C., April 8-12.

State or Regional Conferences

- Esparza, A.M. & **Fleming Jr., K.** (2021, November). Literacy-Infused Science: Structure and Function. Presentation given at the Science Teachers Association of Texas Conference for the Advancement of Science Teaching (CAST). Fort Worth, TX: November 11-13.
- Esparza, A.M. & **Fleming Jr., K.** (2021, November). Literacy-Infused Science: Changes to Ecosystems. Presentation given at the Science Teachers Association of Texas Conference for the Advancement of Science Teaching (CAST). Fort Worth, TX: November 11-13.
- Fleming Jr., K.** & Esparza, A.M. (2021, November). Literacy-Infused Science: Sound Energy. Presentation given at the Science Teachers Association of Texas Conference for the Advancement of Science Teaching (CAST). Fort Worth, TX: November 11-13.
- Fleming Jr., K.** & Esparza, A.M. (2021, November). Literacy-Infused Science: Force and Motion. Presentation given at the Science Teachers Association of Texas Conference for the Advancement of Science Teaching (CAST). Fort Worth, TX: November 11-13.
- Fleming, K.** (2020). Science in the Hundred Acre Wood. Informal Science Education Association Annual Conference, Baylor Research and Innovation Collaborative, Waco, TX, Feb 26-28.
- Fleming Jr., K.** & Esparza, A.M. (2019, November). Bringing Science Home with Project LISTO. Presentation given at the Science Teachers Association of Texas Conference for the Advancement of Science Teaching (CAST). Dallas, TX: November 21-23.
- Esparza, A.M. & **Fleming Jr., K.** (2019, November). Scaffolding Scientific Argumentation with CERs. Presentation given at the Science Teachers Association of Texas Conference for the Advancement of Science Teaching (CAST). Dallas, TX: November 21-23.
- Esparza, A.M. & **Fleming Jr., K.** (2019, November). Chunking and Connecting Scientific Vocabulary. Presentation given at the Science Teachers Association of Texas Conference for the Advancement of Science Teaching (CAST). Dallas, TX: November 21-23.
- Fleming, K.**, & Esparza, A.M. (2018). 100 alternative science conceptions and activities to draw them out. Conference of the Association of Science Teachers in Texas. Fort Worth, TX, Nov 1-3.
- Fleming, K.**, Etchells, M., Sonnenburg, S., Jabbari, N., & Waxman, H. (2015). A content analysis of current topics and issues in teacher education. Paper presentation. Southwest Education Research Association Annual Conference, San Antonio, Texas, Feb 4-6.
- Fleming, K.**, Lyons, L., Etchells, M., & Waxman, H. (2015). Evidence of leadership as a high quality indicator for teacher certification program evaluation. Paper presentation. Southwest Education Research Association Annual Conference, San Antonio, Texas, Feb 4-6.

Professional Development Presentations

Fleming, K. (2025). Finding Opportunities for Observing and Thinking in Hands-on Science Exhibits. Children's Museum of South Dakota, Brookings, SD: April 10.

Fleming, K. & Esparza, A.M. (2025). Cranking up the thermostat on phenomena-based teaching. South Dakota State University, Brookings, SD: April 8.

Fleming, K. (2024, August). Team Teaching. Early Field Workshops. Texas A&M University. August 26-30.

Esparza, A.M., & **Fleming, K.** (2019, October). Scaffolding the Claim-Evidence-Reasoning Framework in Literacy-Infused Science Instruction. LISTO Institute. Stella Hotel and Conference Center, College Station, TX: October 3-4.

Esparza, A.M., & **Fleming, K.** (2019, October). Using Formative Assessment to Differentiate Science Instruction for Grades 5-7. LISTO Institute. Stella Hotel and Conference Center, College Station, TX: October 3-4.

Fleming, K. (2019). Taking LISTO Outdoors: Scaffolding Student Engagement in Outdoor Science Learning Experiences. LISTO Institute. Stella Hotel and Conference Center, College Station, TX. Oct 3-4.

Fleming, K., Esparza, A.M., & Guerrero, C. (2018, October). Classroom Observations: Fidelity of Implementation. LISTO Institute. Embassy Suites, College Station, TX: October 4-5.

Fleming, K., & Guerrero, C. (2019) ELLA-V Curriculum Innovation: Content Reading in Science for English Language and Literacy Acquisition. Dual Language and Literacy Institute. Embassy Suites, College Station, TX, July 12.

Esparza, A.M., Guerrero, C., & **Fleming, K.** (2018, July). ELLA-V Curriculum Innovation: Content Reading in Science for English Language and Literacy Acquisition. Dual Language and Literacy Institute. Embassy Suites, College Station, TX: July 17-20.

Irby, B. & **Fleming, K.** (2019). Peer Coaching. Summer Leadership Institute. Calvary Court Hotel, College Station, TX, July 10.

Fleming, K., Esparza, A.M., & Guerrero, C. (2018). Classroom Observations: Fidelity of Implementation. LISTO Institute. Stella Hotel and Conference Center, College Station, TX. Oct 3-4.

Fleming, K., & Esparza, A.M. (2018, October). Unpacking the LISTO Curriculum. LISTO Institute. Embassy Suites, College Station, TX: October 4-5.

Fleming, K., & Esparza, A.M. (2018). Unpacking the LISTO Curriculum. LISTO Institute. Embassy Suites, College Station, TX. Oct 4-5.

Esparza, A.M., Guerrero, C., & **Fleming, K.** (2018). ELLA-V Curriculum Innovation: Content Reading in Science for English Language and Literacy Acquisition. Dual Language and Literacy Institute. Embassy Suites, College Station, TX. July 17-20.

Community Outreach

Fleming, K. (2024). Under Construction STEM Camp. Science Between the Pages Special Event, Hilltop Lakes Chapel, TX. Aug 8.

Fleming, K. (2024). Love Rocks STEM Camp. Science Between the Pages Special Event, Hilltop Lakes Chapel, TX. Feb 10.

Fleming, K. (2023). 12 Days of Science Camp. Science Between the Pages Special Event at the Community Homeschool Center, Bryan, TX. Dec 9.

Fleming, K. (2023). Eclipse Science Event. Science Between the Pages Special Event at the Cameron Park Zoo, Waco, TX Oct 14

Fleming, K. (2023). Colors of Creation Science Camp. Science Between the Pages Special Event, Hilltop Lakes Chapel, TX. Aug 12.

Fleming, K. (2023). Storytime Science. Science Between the Pages Special Event at the Whimsy & Wild Emporium, Bryan, TX. May 31, Jun 14, Jun 28, Jul 12, Jul 26, Aug 2.

Fleming, K. (2023). Science of the Gateway Arch. Science Between the Pages Special Event, Homeschool Meet & Greet, Caldwell Civic Center, TX. May 25th.

Fleming, K. (2023). Homeschool Science Fair. Community Homeschool Center Special Event, Bryan, TX. May 2.

Fleming, K. (2022). ADVENTure STEM Camp. Science Between the Pages Special Event, Bryan, TX. Dec 16.

Fleming, K. (2022). Glow Stick Science. Science Between the Pages Special Event, 4th on Main Celebration, Caldwell Civic Center, TX. July 4.

Fleming, K. (2022). Homeschool Science Fair. Community Homeschool Center Special Event, Bryan, TX. May 6.

Fleming, K. (2022). Love Rocks STEM Camp. Science Between the Pages Special Event, City of Bryan, TX. Feb 18.

Fleming, K. (2021). 12 Days of Science Camp. Special Event at the Community Homeschool Center, Bryan, TX. Dec 7, 13.

Fleming, K. (2021). Three Little Pigs STEM Camp. Special Event hosted by Science Between the Pages. May 24-27.

Fleming, K., & Fleming, N. (2019). Science of the Sabbath. Special Event with the After School Kids (A.S.K.) program, First United Methodist Church of Bryan, Texas. Oct 15.

Fleming, K., & Fleming, N. (2018). Science in the Hundred Acre Wood. Special Event at the Children's Museum of the Brazos Valley. Sept 21.

Fleming, K., & Fleming, N. (2018). Homeschool Science Fair. Special Event at the Community Homeschool Center, Bryan, TX. Apr 27.

Fleming, K., & Fleming, N. (2017). DeSTEMber Camp. Special Event at the Community Homeschool Center, Bryan, TX. Dec 13-15.

Fleming, K., & Fleming, N. (2017). 12 Days of Science. Special Event at the Community Homeschool Center, Bryan, TX. Nov 30.

Fleming, K., & Fleming, N. (2016). DeSTEMber Camp. Special Event at the Community Homeschool Center, Bryan, TX. Dec 14-16.

Invited Speaker Presentations

Fleming, K. (Dec 4, 2024). Invited Speaker, AggieTEACH Banquet, College of Arts & Sciences and AggieTEACH Student Organization. Texas A&M University.

Fleming, K. (Nov 20, 2024). Invited Speaker, Officiated Pinning Ceremony for Admission to Teacher Certification Program. Texas A&M University.

Fleming, K. (Nov 17, 2022) Invited Speaker, Practices for Planning a Successful Science Fair, Classical Conversations, First Baptist Church College Station, TX.

Fleming, K. (July 2021). Invited Speaker, Magnetism: A Special presentation for the Educational Staff at Answers in Genesis, Creation Museum, Petersburg, Kentucky.

Fleming, K. (April 2018). Facilitating a risk-taking disposition through authentic scientific inquiry. Invited Speaker, Hope College, Division of Natural and Applied Science, Biology Department

Fleming, K. (Fall 2017). Using concept mapping to analyze interview data, Invited Speaker, SOCI 605 Qualitative Research Methods

Fleming, K. (April 2014). Current research developments in Science Education, Invited Speaker, April Graduate Student Association Meeting

Fleming, K. (July 2014). Merits and challenges of alternative progressions among AggieTEACH candidates: Result from a focus group, Presenter, College of Science & College of Education and Human Development Committee, Texas A&M University

Fleming, K. (June 2014). Texas A&M's Role in the Teacher Certification Landscape in Texas. Special presentation to dean, part of a larger project to assess TLAC's undergraduate preparation program

Fleming, K. (April 2014). Current research developments in Science Education, Invited Speaker, April Graduate Student Association Meeting

Fleming, K. (Fall 2013). Conceptual Frameworks in Science Education, Invited Speaker, EDCI 603, Mixed Methods Research in Curriculum and Instruction

SERVICE

Field Experiences Coordinator, conducted training and managed communication as liaison between college-level field placement and certification offices, field supervisors, and pre-service teachers in the internship phase of the educator preparation program

C3 Field Observation Instrument Committee Member, contributed to the effort to align the senior methods observation protocol to the clinical student teaching protocol and the T-TESS evaluation standards (Winter 2023-Summer 2024)

Advisor, Children's Museum of the Brazos Valley, Bryan, TX (Fall 2017-current)

Field Experiences Supervisor, Senior Methods student placements in Bryan ISD, College Station ISD (Fall 2016-current)

Organizer, STEM Think Tank (Summer 2013-Spring 2016)

Curriculum Development, researched and drafted original application for graduate studies Strand, Technology & Teacher Education

Grant Writing, Building Undergraduate Researchers in Education - TLAC High Impact Practice Grant Proposal (awarded \$30K)

Reviewer, STEM education, informal education, *Learning Environments Research* journal

PROFESSIONAL ORGANIZATIONS

Southwest Educational Research Association, member since 2012

Informal Science Education Association, member since 2012

Association of Science and Technology Centers, member since 2014

American Association for the Advancement of Science, member since 2014

Citizen Science Association, member since 2014

National Association of Research in Science Teaching, member since 2015

American Educational Research Association, member since 2015