

## VITA

**Name** Stephen Ludwig Thompson

**Tenure Status** Tenured

**Faculty Rank** Professor

### 1. Academic Degrees

Degree: Ph.D.	Institution: Vanderbilt University
Date of degree: 2002	Major: Education and Human Development
Degree: M.S.	Institution: Florida State University
Date of degree: 1995	Major: Science Education
Degree: B.S.	Institution: Rio Grande College
Date of degree: 1988	Major: Elementary Education

### 2. Professional Experience

Dates: 2024 to present Position: Faculty Director	Institution: University of South Carolina First-Generation Living and Learning Community
Dates: 2018 to present Position: Professor Science Education	Institution: University of South Carolina
Dates: 2008 to 2018 Position: Associate Professor Science Education	Institution: University of South Carolina
Dates: 2002 to 2008 Position: Assistant Professor Science Education	Institution: University of South Carolina
Dates: 1998 to 2002 Position: Graduate Student	Institution: Vanderbilt University
Dates: 1989 to 1998 Position: Classroom Teacher	Institution: Duval County (FL) School District

### 3. Scholarship

Refereed Publications:

Compton-Lilly, C., Thompson, S., Hao, L., Demir, A., Braden, E., Curcio, R., Harbour, K., (2025). Becoming teachers: embedded methods courses and teachers' voices, *School University Partnerships*, 1-19, <https://doi.org/10.1108/SUP-12-2024-0039>.

Curcio, R., Harbour, K.E., Roy, G.J., Thompson, S.L., Baker, M., & Carolina Teaching Collaborative. (2025). A responsive residency model: Collaborative inquiry to inform program development. In R.W. Burns & J. Jacobs (Eds.) *Clinically Based Teacher Education in Action: Cases that Illustrate the Complex Work of Teacher Educators*. Information Age Publishing.

- Thompson, S. L., Fan, X., & Adgeron, A. J. (2024). Exploring a practice-based approach to elementary preservice science teacher preparation. *School Science and Mathematics*, 1–14. <https://doi.org/10.1111/ssm.12663>
- Thompson, S., Clinton, M., Miller, B., & Fu, Z., (2023), Methods for Viewing the Plant Stomata Defense Mechanism, *American Biology Teacher*.
- Thompson, S., Curcio, R., Adgeron, A., Harbour, K., D'Amico, L., West, H., Roy, G., Baker, M., Guest, J., & Compton-Lilly, C., (2022), Virtual summer institutes as a method of rural science teacher development, *Theory and Practice in Rural Education*, 12(2), 153-178.
- D'Amico, L., West, H., Baker, M., Roy, G., Curcio, R., Harbour, K., Thompson, S., Guest, J. Compton-Lilly, C., Adgeron, A., (2022), Using Improvement Science to Develop and Implement a Teacher Residency Program in Rural School Districts, *Theory and Practice in Rural Education*, 12(1), 83-104.
- Thompson, S., Hall, K. & Miller, B., (2021). Immerse Elementary Students in Light Explorations: Using the Anchoring Phenomenon Created by a Camera Obscura to Examine Light, *Science and Children*, 59(2), 67-73.
- Thompson, S., & Emmer, E., (2019). Closing the Experience Gap: The Influence of an Immersed Methods Course in Science, *Journal of Science Teacher Education*, (30)3, 300-319, DOI: [10.1080/1046560X.2018.1562811](https://doi.org/10.1080/1046560X.2018.1562811).
- Chen, H., Palmer, I. A., Chen, J., Chang, M., Thompson, S. L., Liu, F., Fu, Z. Q. (2018). Specific and Accurate Detection of the Citrus Greening Pathogen *Candidatus liberibacter* spp. Using Conventional PCR on Citrus Leaf Tissue Samples. *Journal of Visualized Experiments* (136), e57240, doi:10.3791/57240.
- Lotter, C., Thompson, S., Dickenson, T., Smiley, W., Bilue, G., & Rea, M. (2017). The Impact of a Practice-Teaching Professional Development Model on Teachers' Inquiry Instruction and Inquiry Efficacy Beliefs. *International Journal of Science and Mathematics Education*. 1-19. <https://doi.org/10.1007/s10763-016-9779-x>
- Thompson, S., Lotter, C., Fan, X., & Taylor, L., (2016), Enhancing Elementary Pre-service Teachers' Conceptions of Plant Processes. *Journal of Science Teacher Education*, 27(4), 439-463, DOI 10.1007/s10972-016-9469-0.
- Lotter, C., Smiley, W., Thompson, S., & Dickenson, T., (2016). The impact of a professional development model on middle school teachers' efficacy and implementation of inquiry. *International Journal of Science Education*. 38:18, 2712-2741, DOI: 10.1080/09500693.2016.1259535
- Thompson, S. & Lotter, C., (2014). Conservation of Matter in the Life Sciences. *Science Scope* 38(2), 57-69.
- Thompson, S., (2014). Historical Plant Studies: Tools for Enhancing Students' Understanding of Photosynthesis. *Science Scope* 17(6), 43-53.
- Capobianco, B. & Thompson, S., (2013). Exploring the Use of Visual Data to Uncover Science Students' Conceptions of an Engineer and Engineering. In J. Pedersen & K. Finson (Eds), *Visual Data and Their Use in Science Education*. Charlotte: Information Age Publishing.

Thompson, S., (2010). Enhancing Students' Understanding of Plant-Related Gas Processes. *Science Scope* 33(8), 20-26.

Thompson, S. & Lyons, J., (2009). Engineering Outreach in Middle School: The Influence of a Long-Term, School-Based Collaboration. *International Journal of Engineering Education*, 25(3), 452-460.

Fralick, B., Kearns, J., Thompson, S., & Lyons, J., (2009). How Middle Schoolers Draw Scientists and Engineers. *Journal of Science Education and Technology* 18(1), 60-74.

Thompson, S., (2009). *South Carolina technical college partnerships* (Innovation and Reform in Teacher Preparation: AACTE's 5<sup>th</sup> Annual Day on the Hill, June 17-18, 2009). Washington, DC: 80-81 American Association of Colleges for Teacher Education.

Thompson, S. & Zenger, J., (2009). Diverse Pathways in Teacher Preparation: South Carolina Technical to 4-year College Teacher Certification Initiative. *Teacher Education Journal of South Carolina* 9(1), 8-16.

Maher, M., & Thompson, S., (2009). I Needed a Seventh Grader to Teach Me That: Science and Engineering Graduate Students' Experiences in a Middle School Classroom. *Teacher Education Journal of South Carolina* 9(1), 113-119.

Thompson, S. & Lyons, J., (2008). Engineers in the Classroom: Their Influence on African-American Students' Perceptions of Engineering, *School Science and Mathematics*, 108(5), 197-210.

Thompson, S., (2007b). Demonstrating Inquiry-Based Teaching Competencies in the Life Sciences: Part 2. *Journal of College Science Teaching*, 37(2), 63-65.

Thompson, S., (2007a). Demonstrating Inquiry-Based Teaching Competencies in the Life Sciences: Part 1. *Journal of College Science Teaching*, 37(1), 48-50.

Thompson, S., (2007). Inquiry in the Life Sciences: The Plant-in-a-Jar as a Catalyst for Learning. *Science Activities*, 43(4), 27-33.

Thompson, S., Collins, A., Metzgar, V., Joeston, M., & Shepherd, V., (2002). Exploring Graduate-Level Scientists Participation in a Sustained K-12 Teaching Collaboration. *School Science and Mathematics* 102(6) 254-265.

#### Online Publications:

Thompson, S., Harbour, K., & White, B., (2019). Promising Practices in Elementary Teacher Preparation Across South Carolina, *The South Carolina Teacher Education Advancement Consortium*, 1-19. Available at [https://sc-teacher.org/wp-content/uploads/2019/10/FieldExp\\_WP\\_10.14.pdf](https://sc-teacher.org/wp-content/uploads/2019/10/FieldExp_WP_10.14.pdf) .

Thompson, S., Franklin, S., & Diggs, N., (2018). *Side-by-Side Teaching: Learning to Teach Elementary Science in Authentic Classroom Settings*. National Association for Professional Development Schools (NAPDS) website. Available at <https://napds.org/stories-from-the-field/side-side-teaching-learning-teach-elementary-science-authentic-classroom-settings/> .

#### 4. Grant Activity

Harbour, K., Braden, E., Roy, G., & Thompson, S., (2023). *Scaling Capacity: Developing Residents and Educators Around Equity-Centered MTSS* (SC-DREAM), US Department of Education, Division of Teacher Quality grant, 1.5 years, funded.

Roy, G., Thompson, S., Curcio, R., Baker, M., (co-PI), U.S. Department of Education Division of Teacher Quality grant proposal, *University of South Carolina – Transition to Teaching Residency (UofSC-T3)*, (2019), \$4,996,336.00, 5 years, funded.

Thompson, S., & Fu, Z., (PI), South Carolina Commission on Higher Education: Instruction and Teacher Quality, *Enhancing Middle Grades Science Teachers' Knowledge of Plant Processes, Structures, and Functions Through Engagement in Plant Sciences Research*, (2017), \$172,257.50, 1.5 years, funded.

Thompson, S., Miller, B., & Ely, B. (PI), South Carolina Commission on Higher Education: Instruction and Teacher Quality, *Nature-Based Inquiry Utilizing a STEAM Approach*, (2015), \$121,606.00, 1.5 years, funded.

Thompson, S., Lotter, C., & Ely, B. (PI), South Carolina Department of Education, *STEP (Science Teaching Enhancement Project) into the New Science Standards*, (2013), \$640,302.00, 3 years, funded.

Thompson, S., & Ely, B. (PI), South Carolina Commission on Higher Education, *Expanding Nature-Based Inquiry Opportunities in Elementary Science Education*, (2012), \$234,743.00, 2 years, funded.

Ely, B., & Thompson, S., (co-PI), South Carolina Commission on Higher Education, *Creating an Early Childhood Nature-Based Inquiry Model*, (2011), \$49,391.00, 1 year, funded.

Lotter, C., Thompson, S., & Ely, B., (co-PI), South Carolina Department of Education, Mathematics and Science Partnerships Program, *SIMPLE, Science Inquiry through Modeling Pedagogy, Content Learning, and Evaluation*, (2010), \$903,080.00, 3 years, funded.

Ely, B., & Thompson, S., (co-PI), South Carolina Commission on Higher Education, *Creating an Early Childhood Nature-Based Inquiry Model*, (2009), \$84,882.00, 3 years, funded.

Thompson, S., (PI), Richland School District One, *Richland School District One Professional Development Project*, (2008), \$76,039.00, 1 year funded.

Thompson, S., (PI), United States Department of Education, *Diverse Pathways in Teacher Preparation Seed Grant Initiative Supplement*, (2008), \$50,000.00, 1 year, funded.

Feldon, D., Maher, M., Timmerman, B., Lyons, J., & Thompson, S., (co-PI), National Science Foundation Division of Research and Evaluation on Education is Science and Engineering (REESE), *Effects of Inquiry-Based Teaching Experiences on Graduate Students' Research Skill Development*, (2006), \$705,327.00, 3 years, funded.

Lyons, J., Thompson, S., Ebert, C., & Sawyer, R., (co-PI) National Science Foundation Division of Graduate Education, *Graduate Teaching Fellows Enhancing STEM Education in South Carolina Schools*, (2004), \$1,999,990.00, 5 years, funded.

Kuhs, T., Thompson, S., Dickey, E., & Zenger, J., (PI\*), U.S. Department of Education Division of Teacher Quality grant proposal, *Diverse Pathways in Teacher Preparation: A Collaborative Approach for South Carolina 2- and 4-Year Colleges*, (2004), \$4,700,000.00, 6 years, funded.  
\* Became PI in Year 3

Lyons, J. & Thompson, S., (co-PI), South Carolina Commission on Higher Education, Centers of Excellence Program grant titled, *Center for Engineering and Computing Education*, (2003), \$750,000.00, 5 years, funded.

Thompson, S., & Ponci, F., (co-PI), *Implementation of Problem-Based Teaching Strategies to Improve Student learning in ECLT 222: Systems and Signals*. Bridges for Engineering Education Seed Grant Program, (2003), \$8,000.00, funded.

#### Other Initiatives:

Thompson, S., & Miller, B., (PI), National Park Service, *Development of Interdisciplinary Curriculum-Based Lesson Plans for Grades K-8 at Congaree National Park*, (2016), \$36,233.00, 1.5 years, funded.

Thompson, S., (2015-16) *STEAM (Science, Technology, Engineering, Arts and Mathematics) Professional Development Initiative at Killian Elementary School*, \$11,476.00, 1 year, funded.

Thompson, S. (PI). National Park Service, *Congaree National Park Curriculum Development*, (2014), \$2,499.00, 2 months, funded.

Thompson, S., (PI), & Miller, B., (2014-15) *STEAM (Science, Technology, Engineering, Arts and Mathematics) Professional Development Initiative at Killian Elementary School*, \$20,537.00, 1 year, funded.

Thompson, S., (PI), & Miller, B., (2013-14) *STEAM (Science, Technology, Engineering, Arts and Mathematics) Professional Development Initiative at Killian Elementary School*, (2013-14), \$20,537.00, 1 year, funded.

Thompson, S., (PI), *USC STEM After-School STEM Initiative at WA Perry*, (2012-13), \$16,264.00, 1 year, funded.

Thompson, S., (PI), *USC STEM After-School STEM Initiative at WA Perry*, (2011-12), \$50,622.00, 1 year, funded.

Thompson, S., (PI), *USC STEM After-School STEM Initiative at WA Perry*, (2010-11), \$30,000.00, 1 year, funded.

Thompson, S., (PI), University of South Carolina Research Incentive Grant titled, *Expansion of a Nature-Based Inquiry Model of Teacher Professional Development*, (2010), \$2,301.00, funded.

## 5. National and International Presentations

Thompson, S., (2026). *Strategies for Using Authentic Science Discoveries and Everyday Historical Contexts to Enhance Science Teaching*, Presented at the National Association of School University Partnerships Annual Conference, February 13, 2026.

Thompson, S., (2025), *Strategies for Enhancing Preservice Teachers' Cultural Competency and Culturally Relevant Pedagogy in Science Teaching*, Presented at the Association for Science Teacher Education (ASTE) Annual Conference, Chicago, IL, January 16<sup>th</sup>, 2026.

Thompson, S., (2025), Practice-based approaches to science teacher preparation, Presented at the Association for Science Teacher Education (ASTE) Annual Conference, Long Beach, CA, January 13<sup>th</sup>, 2025.

Contino, J., Thompson, S., Lackey, C., et al., (2025). Science Teacher Residencies: Who, What, Where, When, How, Presented at the Association for Science Teacher Education (ASTE) Annual Conference, Long Beach, CA, January 17<sup>th</sup>, 2025.

Thompson, S., & Jenkins, M., (2024). *Elementary Science Teacher Development in a Scripted Curriculum Context*, Presented at the National Association of School University Partnerships Annual Conference, March 23, 2024.

Thompson, S. (2024). *Science Teacher Residencies Round Table Presentation*. Presented at the Association for Science Teacher Education (ASTE) Annual Conference, New Orleans, LA, January 10<sup>th</sup>, 2024.

Thompson, S., (2023). *Virtual Elementary Science Teacher Preparation: Exploring Summer Science Institute Design Structures and Outcomes*. Presented at the National Association of Research in Science Teaching (NARST) Annual Conference, April 21, 2023.

Thompson, S., & Jenkins, M., (2023). *Science Talk: Clinical Approaches Designed to Support Elementary Teacher Candidates' and Elementary Students' Scientific Discourse Practices*, Presented at the National Association for Professional Development Schools (NAPDS) Annual Conference, March 23, 2023.

Adgeron, A., Curcio, R., Harbour, K., & Thompson, S., (2023). *Virtual Science Summer Institute Design Structures that Support Rural Resident Teacher Development*, Presented at the National Association for Professional Development Schools (NAPDS) Annual Conference, March 24, 2023.

Thompson, S., (2023). *Exploring a Model for Rural Elementary Science Teacher Preparation*. Presented at the Association for Science Teacher Education (ASTE) Annual Conference, Salt Lake City, Utah, January 12<sup>th</sup>, 2023.

Thompson, S., Jones, A., Smalls, K., (2022). *A Collaborative Practice Teaching Model for Elementary Science Teacher Preparation and Development*. Presented at the National Association for Professional Development Schools (NAPDS) Annual Conference, February 10, 2022.

Jones, A., Smalls, K., & Thompson, S., (2022). *Pivoting Toward Possibility: How are you as an educational leader and doctoral candidate constructing a researcher identity within your PDS context?* Presented at the National Association for Professional Development Schools (NAPDS) Annual Conference, February 9, 2022.

Thompson, S., & Adgersen, A., (2022). *Examining Virtual Rehearsals and Practice Science Teaching as Support Systems for Rural Elementary Teacher Residents*. Presented at the National Association of Research in Science Teaching (NARST) Annual Conference, March 28, 2022.

Thompson, S., & Adgersen, A., (2022). *Rehearsals and Practice Teaching within Science Methods Coursework*. Presented at the Association for Science Teacher Education (ASTE) Annual Conference, Greenville, South Carolina, January 7<sup>th</sup>, 2022.

Jones, A., & Thompson, S., (2021). *Pivoting Towards Possibility*. Presented at the Professional Development Schools Southeastern Regional Vision for Education (PDS SERVE) Annual Conference, October 2, 2021, Virtual.

Adgersen, A., & Thompson, S., (2021). *Mitigating Rural Teacher Shortages: The Conceptualization of a Responsive Teacher Preparation Program Within a School-University Partnership*. Presented at the Professional Development Schools Southeastern Regional Vision for Education (PDS SERVE) Annual Conference, October 2, 2021, Virtual.

D'Amico, L., West, H., Roy, G., Thompson, S., Curcio, R., Baker, M., et al., (2021). *Using Improvement Science to Implement and Evaluate Teacher Residency Programs in Rural School Districts*. Presentation at the American Educational Research Association (AREA) Annual Conference, April 9, 2021, Virtual.

Thompson, S., Jones, A., Smalls, K., & Diggs, N., (2021). *Learning to Teach Elementary Science in Virtual Spaces*. Presented at the National Association for Professional Development Schools (NAPDS) Annual Conference, March 30, 2021, Virtual.

Thompson, S., *Practice-based Approaches to Elementary Science Teacher Preparation: Examination of Responsive Teaching Cycle in Science*. Presented at the Association for Science Teacher Education (ASTE) 2021 Annual Conference, January 15<sup>th</sup>, 2021, Virtual.

Thompson, S., & Jackson-Jones, Z., (2019). *Learning to Teach Elementary Science Through Practice-Based Pedagogy*. Presented at the National Association for Professional Development Schools (NAPDS) 2019 Annual Conference, March 13<sup>th</sup>, Newark, NJ.

Thompson, S. (2019). *Practice-based Approaches to Elementary Science Teacher Preparation*. Presented at the Association for Science Teacher Education (ASTE) 2019 Annual Conference, January 4<sup>th</sup>, Savannah, Georgia.

Thompson, S., & Diggs, N., (2018). *Closing the Experience Gap: An Immersed Science Methods Courses Model*. Presented at the National Association for Professional Development Schools (NAPDS) 2018 Annual Conference, March 16<sup>th</sup>, Jacksonville, Florida.

Thompson, S. (2018). *Closing the Experience Gap: Embedding Science Methods Coursework within the Elementary Science Classroom Setting*. Presented at the Association for Science Teacher Education (ASTE) 2018 Annual Conference, January 5<sup>th</sup>, Baltimore, Maryland.

Thompson, S. (2017). *Tracing Changes in Middle School Teachers' Conceptions of Plant Processes as a Result of a Modeling-based Professional Development Experience*. Presented at the Association for Science Teacher Education (ASTE) 2017 Annual Conference, January 13<sup>th</sup>, Des Moines, Iowa.

Thompson, S. (2016). *ASTE Session: Activities and Strategies for Teaching Difficult-to-Understand Plant Processes*. Presented at the National Science Teachers Association (NSTA) 2016 Annual Conference, April 1<sup>st</sup>, Nashville, Tennessee.

Thompson, S. (2015). *Modeling in Life Science: Examining Middle School Teachers' Conceptions of Plant Processes*. Presented at the Association for Science Teacher Education (ASTE) 2015 Annual Conference, January 9th, Portland, Oregon.

Lotter, C., Thompson, S., Dickenson, T., & Morgan, G., (2014). *Middle School Science Teachers' Efficacy and Implementation of Inquiry: Impact of an Inquiry Professional Development Program*. Presented at the Association for Science Teacher Education (ASTE) 2014 Annual Conference, January 18th, San Antonio, TX.

Thompson, S., (2014). *Teaching Plant Processes Using a Wholeness Approach*, Experiential Session at the Association for Science Teacher Education (ASTE) 2014 Annual Conference, January 15<sup>th</sup>, San Antonio, TX.

Lotter, C., Thompson, S., Dickenson, T., & Morgan, G., (2013). *Impact of a Professional Development Program on Middle School Teachers' Inquiry Teaching Efficacy*. Paper Presented at the National Association for Research in Science Teaching (NARST) 2013 Annual Conference, April 7<sup>th</sup>, Puerto Rico.

Thompson, S., (2013). *Elementary Preservice Teachers' Understanding of Interrelated Processes and Functions* (Syllabus Sharing), Presented at the Association for Science Teacher Education (ASTE) 2013 Annual Conference, January 11th, Charleston, SC.

Thompson, S., (2013). *Teaching Plant Processes Using a Wholeness Approach*, Experiential Session at the Association for Science Teacher Education (ASTE) 2013 Annual Conference, January 12<sup>th</sup>, Charleston, SC.

Thompson, S., Ichi-ito, S., Lueke, S. & Grimm, J. (2012), *What's in the Air?*, Presentation at the National Science Teachers Association (NSTA) Annual Conference, March 31<sup>st</sup>, Indianapolis, IN.

Thompson, S., (2012). *Impacting Middle Level Science Teachers' Understanding of Inter-Related Plant Processes*. Paper Presented at the Association for Science Teacher Education (ASTE) 2012 Annual Conference, January 6th, Clearwater, FL.

Lyons, J., Thompson, S., & Creighton, S., (2011). *GK-12 Engineering Fellows Change Student Perceptions; Science Fellows, Not So Much*, Presentation at the American Society for Engineering Education (ASEE) annual conference, Vancouver, British Columbia. Proceedings available at <http://www.asee.org/conferences/v2search.cfm>

Thompson, S., Diggs, N., Hicks, S., & Hudson, Z., (2011). *Making a PDS/University Science Collaboration Work: A Model for University Faculty Working in Public School Settings*, Presentation at the National Association of Professional Development Schools (NAPDS) annual conference, March 11<sup>th</sup>, New Orleans, LA.

Thompson, S., & Lotter, C., (2011). *Elementary Preservice Teachers' Understanding of Plant-Related Processes and Functions*, Paper Presented at the Association for Science Teacher Education (ASTE) 2011 Annual Conference, January 21st, Minneapolis, MN.

Thompson, S., Watson, J., & Lyons, J., (2010). *Measuring Change in Engineering and Science Graduate Students' Teaching Efficacy as a Result of Participation in a GK-12 Project*, Presentation at the American Society for Engineering Education (ASEE) Annual Conference, Louisville, KY. Proceedings available at <http://www.asee.org/conferences/v2search.cfm>.

Eakes, K., Hyatt, J., Thompson, S., and Zenger, J., (2008). *South Carolina's Diverse Pathways in Teacher Preparation Program*, Presentation at the Future Educators Association (FEA) Annual Conference, Chattanooga, TN.

Gilmore, J., Dickenson, T., Thompson, S., Zenger, J., (2008). *Supporting Transfer Students in Education: Evaluation of a Program for Recruiting and Retaining Teachers from Diverse Backgrounds*, Presentation at the American Educational Research Association (AERA) Annual Conference, New York, NY.

Thompson, S., & Lyons, J., (2007). Comparison of Outcomes for Engineering and Science GK-12 Fellows. *Proceedings of the American Society for Engineering Education (ASEE)*. Available from <http://www.asee.org/conferences/v2search.cfm>.

Lyons, J. & Thompson, S., (2007). GK-12 Engineering Workshop for Science and Math Teachers. *Proceedings of the American Society for Engineering Education (ASEE)*. Available from <http://www.asee.org/conferences/v2search.cfm>.

Thompson, S., (2007). *Comparing Life and Earth Science Concepts Held by Elementary Preservice Teachers and Third Graders*. Paper Presented at the American Educational Research Association (AERA) annual conference, Chicago, Illinois.

Thompson, S., (2007). *Examining Change in Third Graders' Understandings of Important Life and Earth Science Concepts as a Result of an Extended Inquiry-Based Plant Investigation*. Paper Presented at the Association for Science Teacher Education (ASTE) annual conference, Clearwater, Florida.

Thompson, S., (2007). *The NSES Plant-in-a-jar as a Catalyst for Learning*. Paper Presented at the Association for Science Teacher Education (ASTE) annual conference, Clearwater, Florida.

Thompson, S. and Lyons, J., (2006). *Investigating the Long Term Impact of an Engineering Based GK-12 Program on Students' Perceptions of Engineering*. Published Conference Proceedings from the American Society for Engineering Education (ASEE) Annual Conference, Portland, Oregon. Available on-line at <http://www.asee.org/about/events/conferences/search.cfm>.

Caicedo, A., Lyons, J., and Thompson, S., (2006). *Investigating Outcomes for GK-12 Teacher Partners and GK-12 Summer Institute Participants*. Published Conference Proceedings from the American Society for Engineering Education (ASEE) Annual Conference, Chicago, Illinois. Available on-line at <http://www.asee.org/about/events/conferences/search.cfm>.

Diggs, N., Rosati, J., & Thompson, S., (2006). *Implementation of a New Professional Development School Model*, Presentation at the National Association of Professional Development Schools (NAPDS) Annual Conference, Orlando, Florida.

Thompson, S., (2006). *Examining Change in Underrepresented Students' Perceptions of Engineering as a Result of a GK-12 Collaboration*. Paper Presented at the Association for Science Teacher Education annual conference (ASTE), Portland, Oregon.

Thompson, S. and Lyons, J., (2005). *A Study Examining Change in Underrepresented Student Views of Engineering as a Result of Working with Engineers in the Elementary Classroom*. Published Conference Proceedings from the American Society for Engineering Education (ASEE) Annual Conference. Portland, Oregon. Available on-line at <http://www.asee.org/about/events/conferences/search.cfm>.

Lyons, J., Fisher, S., and Thompson, S., (2005). *Effects of Participating in a GK-12 Program on the Graduate Students' Programs of Study*. Published Conference Proceedings from the American Society for Engineering Education (ASEE) Annual Conference, Portland, Oregon. Available on-line at <http://www.asee.org/about/events/conferences/search.cfm>.

Thompson, S. & Hawkins, D., (2005). *Building Bridges: Teacher and Engineer Collaborations in a PDS Network*. Presentation at the National Association of Professional Development Schools (NAPDS) Annual Conference, Orlando, Florida.

Thompson, S., & Pelt, J., (2005). *Measuring the Influence of Engineer and Elementary Science Teacher Collaborations Using the Draw an Engineer Instrument*. Paper presented at the Association for the Education of Teachers of Science (AETS) Annual Conference, Colorado Springs, Colorado.

Thompson S. & Ponci F., (2004). *Implementation of Problem-Based Learning in an Undergraduate Engineering Course*. Paper Presented at the National Association for Research in Science Teaching (NARST) annual conference, Vancouver, British Columbia.

Thompson, S., (2004). *Natural History and the Nature of Science in Elementary Science Instruction*. Paper presented at the Association for the Education of Teachers of Science (AETS) Annual Conference, Nashville, Tennessee.

Thompson, S., (2003). *Middle Grades Science Teachers' Beliefs and Practices Related to Inquiry: Development of an Inquiry Framework from the Ground up*. Paper presented at the American Educational Research Association (AERA) Annual Conference, Chicago, Illinois.

Thompson, S., (2003). *The Influence of a GK-12 Collaboration on Science Teachers' Inquiry Perceptions and Practices*. Paper presented at the Association of Educators of Teachers of Science (AETS) Annual Conference, St. Louis, Missouri.

Thompson, S., Collins, A., Metzgar, V., Joeston, M., & Shepherd, V. (2002). *Examining the Influence of a School-Based Collaboration Involving Scientists and Science Teachers*. Paper presented at the Association of Educators of Teachers of Science (AETS) Annual Conference, Charlotte, North Carolina.

#### State and Regional Presentations

West, H., Thompson, S., Gilreath, R., Crooks-Monastra, J., D'Amico, L., Curcio, R., Roy, G., Harbour, K., Baker, M., & Carolina Teaching Collaborative (2023, February 24). *Supporting teacher candidates and induction teachers: Stressors of and supports for nontraditional students and people of color* [Paper presentation]. South Carolina Educators for the Practical Use of Research, February 24, Columbia, SC.

Thompson, S., Jones, A., Smalls, K., Mitchell, T., Holiday, S., Rudolph, L, Diggs, N., (2021). *Exploring and Confronting Racists Teaching Practices*. Presentation at the Inquiry Matters Annual Conference, April 17<sup>th</sup>, 2021, virtual.

Thompson, S., Jones, A., Smalls, K., (2020). *Learning to Teach Elementary Science in Virtual Spaces*. Presentation at the Southeastern Education Regional Vision for Education Annual Conference Annual Conference, October 24<sup>th</sup>, virtual.

Adgeron, A., Baker, M., Curcio, R., Guest, J., Roy., G., Thompson, S., D'Amico, L., West, H., (2020). *Reinterpreting Rural Teacher Education Within the Context of Virtual Spaces*.

Presentation at the Southeastern Education Regional Vision for Education Annual Conference Annual Conference, October 24<sup>th</sup>, virtual.

Thompson, S., Jackson-Jones, Z., Diggs, N. (2019). *Practice-Based Approaches for Learning to Teach Elementary Science*, Professional Development School Conference Southeastern Regional Vision for Education (SERVE) Conference, October 26th, Atlanta, GA.

Thompson, S., Diggs, N., et al., (2017). *Closing the Experience Gap: Preservice Teachers Discuss the Influence of an Elementary Science Methods Course Embedded Within the Classroom Setting*, South Carolina Professional Development School Conference, February 10th, Myrtle Beach, SC.

Thompson, S., Foster, J., et al., (2017). *Closing the Experience Gap: Inservice Teachers Discuss the Influence of an Elementary Science Methods Course Embedded Within the Classroom Setting*, South Carolina Professional Development School Conference, February 10th, Myrtle Beach, SC.

Thompson, S. (2016). *Making Plant Processes Interesting and Understandable for Students*. Presentation at the South Carolina Science Council Annual Conference, November 4<sup>th</sup>, Columbia, SC.

Lotter, C., & Thompson, S. (2015). *Modeling and Argumentation in the New Science Standards*. Presentation at the South Carolina STEM Share Fair, March 7<sup>th</sup>, Columbia, SC.

Thompson, S. (2014). *Active Strategies for Helping Students Understand Plant Processes*. Presentation at the South Carolina Science Council Annual Conference, October 30<sup>th</sup>, Myrtle Beach, SC.

Lotter, C. & Thompson, S. (2014). *STEP into the New Science Standards with Argumentation and Modeling Strategies*. Presentation at the South Carolina Science Council Annual Conference, October 30<sup>th</sup>, Myrtle Beach, SC.

Miller, B. & Thompson, S. (2014). *STEAM as a Curricular Approach*. Presentation at the South Carolina Science Council Annual Conference, October 30<sup>th</sup>, Myrtle Beach, SC.

Thompson, S. & Lotter, C. (2013). *Connections between Assessment and Practice: How to Avoid a Return to Drill and Kill*. Presentation at the Moving from Standards to Practice: Leading Tomorrow's Mathematics and Science Education in South Carolina, February 25<sup>th</sup>, Clemson, SC.

Thompson, S., (2011). *Impact of an Instructional Intervention on Elementary Preservice Teachers' Plant Process Conceptions*. Presentation at the Southeastern Association of Science Teacher Educators (SASTE) Annual Conference, October 15<sup>th</sup>, 2011, Athens, GA.

Thompson, S., (2010). *Elementary Preservice Teachers' Understanding of Interrelated Plant Functions and Processes*. Presentation at the Southeastern Association of Science Teacher Educators (SASTE) Annual Conference, October 9<sup>th</sup>, 2010, Decatur, GA.

Thompson, S., (2010). *Measuring Change in Engineering and Science Graduate Students' Teaching Efficacy as a Result of Participation in a GK-12 Project*. Presentation at the Southeastern Association of Science Teacher Educators (SASTE) Annual Conference, October 9<sup>th</sup>, 2010, Decatur, GA.

Foster, D., Elmore, D., & Thompson, S. (2010). *Diverse Pathways in Teacher Education*, South Carolina Technical Educators Association Annual Conference, February 19, 2010, Myrtle Beach, South Carolina.

Thompson, S., (2009). *Mungo Undergraduate Teaching Award Panel Presentation*, Center for Teaching Excellence at the University of South Carolina, October 1, 2009, Columbia, SC.

Thompson, S., (2009). Presentation to the Midlands Education and Business Alliance, Business Matters Seminar, *Diverse Pathways in Teacher Preparation*, February 13, 2009, Columbia, SC.

Thompson, S., (2008). Presentation to the South Carolina Technical College Chief Academic Officers titled, *Diverse Pathways in Teacher Preparation Seed Grant Initiative*, Columbia, SC.

Thompson, S., (2008), *Elementary Preservice Teachers' Plant-Related Misconceptions*, Presentation at the Southeast Association of Science Teacher Educators (SASTE) Annual Conference, Columbia, SC.

Thompson, S., (2008). Presentation to the South Carolina Technical College Presidents titled, *Diverse Pathways in Teacher Preparation Seed Grant Initiative*, Columbia, SC.

Elmore, D., Zenger, J., & Thompson, S., (2008). *Be a Hero in Your Hometown: A Case Study for Building a Seamless Transfer Teacher Education Program for South Carolina*, Presentation at the South Carolina Education & Business Summit, Greenville SC.

Elmore, D., Perkins, R., Zenger, J., & Thompson, S., (2008). Presentation to the South Carolina State Department of Education titled, *Diverse Pathways in Teacher Preparation: A Collaborative Approach for Two- and Four-Year Colleges*.

Gilmore, J., Dickenson, T., Thompson, S., & Zenger, J., (2008). *Supporting Transfer Students in Education: Evaluation of a Program for Recruiting and Retaining Teachers from Diverse Backgrounds*, Presentation at the University of South Carolina American Educational Research Association Showcase.

Thompson, S., (2006). *Using the NSES Plant-an-a-jar Assessment to Teach about Inquiry and the History and Nature of Science*. Paper presented at the South Carolina Science Council Annual Conference, Myrtle Beach, South Carolina.

Thompson, S., (2005). *Teaching about Plant Function and Scientific inquiry in an Elementary Classroom*. Paper presented at the South Carolina Science Council Annual Conference, Myrtle Beach, South Carolina.

Thompson, S., (2004). *Observation as Inquiry: Using the NSES Plant-an-a-jar Assessment to Teach about Inquiry and the Nature of Science*. Paper presented at the South Carolina Science Council Annual Conference, Myrtle Beach, South Carolina.

#### Invited Presentations:

Budden, L & Thompson, S., *Creating Academic Spaces that Foster Success for First-Generation College Students*, March 18, 2025, USC Center for Teaching Excellence.

Thompson, S., Presentation to University of Connecticut First-Generation Staff (virtual), invited by Camila Adrianzén Yndigoyen, First-Gen Outreach & Engagement Coordinator Academic

Achievement Center (AAC) | John W. Rowe, Center for Undergraduate Education, University of Connecticut, March 4, 2025.

Thompson, S., (2020). *Distance Learning That Supports Student Sense-Making in Science*. Presentation at Richland Two School District Inservice August 28th, Virtual.

Thompson, S., (2017). *Making Climate Change Understandable*. Presentation at Congaree National Park (United States Park Service), June 1st, Hopkins, SC.

Thompson, S., (2016). *Making Meaningful and Manageable Internships*. Presentation at the Provost's Undergraduate Summit for Faculty, May 10th, Columbia, SC.

Thompson, S., (2015). *Modeling and Argumentation in the New Science Standards*. Presentation at the Aiken Technical College STEM Symposium, January 16th, Aiken, SC.

Thompson, S., (2015). *Active Strategies for Helping Students Understand Plant Processes*. Presentation at the Aiken Technical College STEM Symposium, January 16th, Aiken, SC.

Thompson, S., (2014). *A Framework for K-12 Climate Education*. Presented at the Climate Friendly Parks Workshop, Cowpens National Battlefield Park, December 3<sup>rd</sup>, Virtual.

Thompson, S., (2014). *A Framework for K-12 Climate Education*. Presented at the Climate Friendly Parks Workshop, Congaree National Park, September 10th, Columbia, SC.

Thompson, S., (2014). *Science and Engineering Practices: Understanding Students' Perceptions of Engineers and How to Positively Inform Them*. Presented at the Environmental Education Association of South Carolina 2014 Annual Conference, June 13th, Charleston, SC.

Thompson, S. (2012), *USC College of Education Collaboration with Guinyard Elementary*. 2012 South Carolina School Improvement Council Annual Meeting, March 24th, Columbia.

Thompson, S. (2011), *Waiting for Superman: Searching for Heroes in Education*, Panel Discussion Sponsored by the University of South Carolina Community Service Programs.

Thompson, S. & Svec, M., (2008), *Graduate Student Forum: The Initial Job Search*, Invited Presentation at the Southeast Association of Science Teacher Educators (SASTE) Annual Conference, Columbia, SC.

Zenger, J., Yarbrough, W., Thompson, S., & Moody, L. (2006). *Pathways to Recruiting and Supporting a More Diversified Teaching Force*. Presentation at the United States Department of Education, Teacher Quality Enhancement Grants Program, Project Directors' Meeting, Albuquerque, New Mexico.

Lyons, J., Ebert, C., Sawyer, R., Thompson, S., & Addison, V., (2006). *Graduate Teaching Fellows Enhancing STEM Education in South Carolina Schools*. Presentation at the National Science Foundation Director's Site Visit, Columbia, South Carolina.

Zenger, J., & Thompson, S., (2005). *Inquiry-based Teaching- Theoretical Perspectives*. Presentation at the Diverse Pathways Teacher Quality Conference, Columbia, South Carolina.

Thompson, S., (2005). *Cross-Institutional Collaboration*. Presentation at the National Network for Educational Renewal Annual Conference, Myrtle Beach, South Carolina.

Thompson, S., & Virtue, D., (2005). *Inquiry in Middle/High School: Making Connections Explicit*. Presentation at the University of South Carolina Inquiry Expo.

Thompson, S., & Svec, M., (2003). *Graduate Student Forum on Getting That First University Job*. Presentation at the Southeast Association for the Education of Teachers of Science (SAETS) Annual Conference, Greenville, South Carolina.

#### Technical Reports:

Thompson, S. (2021). Department of Defense Education Activity, *Richland Two Military Connected STEM Mindset Annual Project Report*.

Thompson, S. (2020). Department of Defense Education Activity, *Richland Two Military Connected STEM Mindset Annual Project Report*.

Thompson, S. (2019). Department of Defense Education Activity, *Richland Two Military Connected STEM Mindset Annual Project Report*.

Thompson, S., (2016). Council for the Accreditation of Educator preparation (CAEP), *University of South Carolina Elementary Education Bachelor of Arts Accreditation Response to Conditions Report*.

Thompson, S., & Petrulis, R., (2016). South Carolina Commission on Higher Education: Instruction and Teacher Quality, *Nature-Based Inquiry Utilizing a STEAM Approach Final Project Report*.

Thompson, S., & Lewis, A., (2016), South Carolina Department of Education, *STEP (Science Teaching Enhancement Project) into the New Science Standards Final Project Report*.

Thompson, S., (2014). Council for the Accreditation of Educator preparation (CAEP), *University of South Carolina Elementary Education Bachelor of Arts Accreditation Report*.

Ely, B., & Thompson, S., (2014), South Carolina Commission on Higher Education, *Expanding Nature-Based Inquiry Opportunities in Elementary Science Education Final Project Report*.

Ely, B., & Thompson, S., (2013), South Carolina Commission on Higher Education, *Creating an Early Childhood Nature-Based Inquiry Model Final Project Report*.

Lotter, C., Thompson, S., & Dickenson, T., (2013), South Carolina Department of Education, Mathematics and Science Partnerships Program, *SIMPLE, Science Inquiry through Modeling Pedagogy, Content Learning, and Evaluation Final Project*.

Ely, B., & Thompson, S., (2012), South Carolina Commission on Higher Education, *Creating an Early Childhood Nature-Based Inquiry Model Final Project Report*.

Thompson, S. & Zenger, J., (2010). United States Department of Education, Division of Teacher Quality, 2010 Final Project report for Award # P336B040014 titled, *Diverse Pathways in Teacher Preparation: A Collaborative Approach for South Carolina 2- and 4-year Colleges*.

Donnelly, A., Vogler, K., & Thompson, S., (2009). Report to the National Council for Accreditation of Teacher Education titled, *Elementary Education Baccalaureate Accreditation Report*.

Thompson, S. & Zenger, J., (2009). Report to the South Carolina State Superintendent of Education titled, *Creation of Regional Technical to 4-year College Teacher Certification Pathways in South Carolina: A Collaborative Approach for Two- and Four-Year Colleges*

Thompson, S. & Zenger, J., (2009). United States Department of Education, Division of Teacher Quality, 2008 Annual Project Report for Award #, P336B040014 titled, *Diverse Pathways in Teacher Preparation: A Collaborative Approach for South Carolina 2- and 4-year Colleges*.

Lyons, J., & Thompson, S., (2009). South Carolina Commission on Higher Education, Centers of Excellence, *Center for Engineering and Computing Education Final Report*.

Thompson, S. & Zenger, J., (2008). United States Department of Education, Division of Teacher Quality, 2008 Annual Project Report for Award #, P336B040014 titled, *Diverse Pathways in Teacher Preparation: A Collaborative Approach for South Carolina 2- and 4-year Colleges*.

Lyons, J., & Thompson, S., (2007). South Carolina Commission on Higher Education, Centers of Excellence, *Fiscal Year 2006-2007 Center for Engineering and Computing Education Annual Project Report*.

Lyons, J., & Thompson, S., (2006). National Science Foundation, *Graduate Teaching Fellows Enhancing STEM Education in South Carolina Schools Annual Project Report*.

Lyons, J., & Thompson, S., (2006). South Carolina Commission on Higher Education, Centers of Excellence, *Fiscal Year 2005-2006 Center for Engineering and Computing Education Final Report*.

Lyons, J., & Thompson, S., (2005). National Science Foundation, *Graduate Teaching Fellows Enhancing STEM Education in South Carolina Schools Annual Project Report*.

Thompson, S., (2002) Evaluation of Tennessee Higher Education Commission Eisenhower Project titled, *Understanding Life: Strengthening Middle and High School Teachers' Background in Molecular Biology*.

#### Awards:

University of South Carolina College of Education *Affinity Fellows Award (2025)*

University of South Carolina Office of Assistant Vice President for Career Readiness and Post Graduate Success *Career Influencer Award (2025)*

University of South Carolina *Exemplary Professional Development School Award* to Killian Elementary School, University Liaison (2020)

University of South Carolina *Presidential Coin of Achievement (2020)*

University of South Carolina *Michael J. Mungo Undergraduate Teaching Award (2009)*

University of South Carolina College of Education *Leonard Maiden Spirit of Service Award (2008)*

University of South Carolina Office of Student Affairs *Recognition of Teaching Excellence (2012, 2011, 2007, 2006, 2005, 2003)*

University of South Carolina Outstanding *Freshman Advocate Award* (2004)

University of South Carolina *South Tower Academic Award for Teaching Excellence* (2004)

Honors:

The Dick and Tunkey Riley *What WorksSC Award for Excellence* (2012), Enhancing Diverse Pathways in Teacher Preparation, Semi-Finalist.

Association of Public Land-Grant Universities *W.K. Kellogg Foundation Engagement and Outreach Award* (2011), Enhancing Diverse Pathways in Teacher Preparation, University of South Carolina, Nominee.

Association of Public Land-Grant Universities *W.K. Kellogg Foundation Engagement and Outreach Award* (2010), Diverse Pathways in Teacher Preparation, University of South Carolina, Nominee.

Reviewer:

*Journal of Science Teacher Education* (2015-present)

*International Journal of Engineering Education* (2009-present)

*Journal of Science Education and Technology* (2009-present)

*Urban Education* (2008)

Review Panels:

*National Association for Research in Science Teaching*, Conference Proposal Reviewer, 2021.

*Association for Science Teacher Education*, 2015-2018 Professional Development Committee Member

*Association for Science Teacher Education*, 2012-2014 Awards Committee Member

*Association for Science Teacher Education*, 2002-Present Conference Proposal Reviewer

*National Association for Research in Science Teaching*, Strand 1 (Science Learning, Understanding and Conceptual Change) and 7 (Pre-service Science Teacher Education), 2011.

*Investing in Innovation Grant Review Panel* - United States Department of Education, 2010.

*National Evaluation Series (NES) National Benchmark Conference* - Pearson Publishing, June, 2010, St. Louis, Missouri - Consultant

*Association for Science Teacher Education* - Southeast Conference Proposal Review Committee Chair 2008

*American Society for Engineering Education Annual Conference*, Emerging Trends Division, February, 2008/2007

*National Association for Research in Science Teaching*, Strand 2 Learning: Classroom Contexts, August, 2004.

*National Science Foundation*, Research on Learning and Education Program (ROLE) program, August 2 and 3, 2004.

*Palmetto Achievement Challenge Test (PACT)* Test item analysis, Science Assessment, June 2003.

*Alabama Power Foundation Inc.*, Educational Grant Program Reviewer, 2001/2002.

Other Professional Service:

Association for Science Teacher Education, Annual Conference Proposal Review Strand  
Coordinator *Science Teacher Professional Development-ELEMENTARY* (2023-2025)

*Association for Science Teacher Education*, 2021 Annual Conference Proposal Review Strand  
Coordinator-*Student Learning* (2020-2023).

Current Professional Association Memberships:

National Association of Research in Science Teaching (NARST)

Association for Science Teacher Education (ASTE)

National Science Teachers Association (NSTA)