

Name: Stephen Ludwig Thompson

Academic background:

- Degree: Ph.D. in Education and Human Development, Science Education
- Institution: Vanderbilt University, Nashville, TN
- Degree: B.S. in Science Education
- Institution: Florida State University
- Degree: B.S. in Elementary Education
- Institution: Rio Grande College

Title(s): Associate Professor

Department(s): Instruction & Teacher Education

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Selected research studies:

Thompson, S., Lotter, C., & Ely, B., South Carolina Department of Education, *STEP (Science Teaching Enhancement Project) into the New Science Standards*, (2013), \$215,594 funded, (Total anticipated 3 year funding, \$814,006).

Thompson, S., & Ely, B., South Carolina Commission on Higher Education, *Expanding Nature-Based Inquiry Opportunities in Elementary Science Education*, (2012), \$473,967, 4 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, 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*, (2011), \$903,080, 3 years, funded.

Ely, B., & Thompson, S., (co-PI), South Carolina Commission on Higher Education, *Creating an Early Childhood Nature-Based Inquiry Model*, (2009), \$254,646, 3 years, funded.

Feldon, D., Maher, M., Timmerman, B., Lyons, J., & Thompson, S., (co-PI), National Science Foundation Division of Research and Evaluation on Education in Science and Engineering (REESE), *Effects of Inquiry-Based Teaching Experiences on Graduate Students' Research Skill Development*, (2006), \$705,327, 3 years, funded.

Lyon, J., Thompson, S., Ebert, C., & Sawyer, R., (co-PIs) 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.

Thompson, S., Dickey, E., & Zenger, J., 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, 5 years, funded.

Selected publications:

Thompson, S., (2014). Historical Plant Studies: Tools for Enhancing Students' Understanding of Photosynthesis. *Science Scope*, 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., Kearn, 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. & 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.

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.

Select presentations:

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) 2013 Annual Conference, January 15th, 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 7th, 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 12th, 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 31st, 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>

Selected awards:

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)

Biography:

Dr. Stephen Thompson is an Associate Professor in the Department of Instruction and Teacher Education at the University of South Carolina. He earned his Ph.D. in Education and Human Development from Vanderbilt University in 2002. At USC, he teaches elementary science methods and general education methods courses for graduate and undergraduate students. He also teaches and supervises science education doctoral students. Dr. Thompson's research interests center on improving elementary and middle level science education, especially in high-need communities, through reform-based teaching strategies. His current research projects include a large-scale examination of science teachers' conceptions of inter-related plant processes and an examination of scaffolding mechanisms that support enhanced science teaching. He has received over 10 million dollars in grant funds to develop elementary and middle school inquiry professional development workshops, support scientist and engineer collaborations in K-12 settings, and create teacher certification pathways for citizens living in high-need communities. Currently, he is a lead investigator on a 3-year SC Mathematics and Science Partnership grant providing inquiry-based professional development to middle school science teachers throughout the state.