

**JEFF C. MARSHALL, Ph.D.**  
Curriculum Vita

**EDUCATION**

- Ph.D.**, (2004) **Indiana University**, Bloomington, IN  
–Major: Curriculum and Instruction (Physics/Chemistry Emphasis)
- M.S.**, (2002) **Indiana University**, Bloomington, IN  
–Major: Curriculum and Instruction
- B.S.**, (1991) **University of Central Oklahoma**, Edmond, OK  
–Science Education—Chemistry Specialization

**ACADEMIC APPOINTMENTS**

- Professor, Clemson University (2016-Present)**,  
College of Education, Clemson, SC
- Associate Professor, Clemson University (2010-2016)**,  
School of Education, Clemson, SC
- Assistant Professor, Clemson University (2006-2010)**,  
School of Education, Clemson, SC
- Assistant Professor, Butler University (2003-2006)**,  
College of Education, Indianapolis, IN
- Associate Instructor, Indiana University (2001-2003)**,  
College of Education, Bloomington, IN

**UNIVERSITY LEADERSHIP/ADMINISTRATIVE ROLES**

- **Associate Dean of Research and Graduate Studies** for the College of Education, Clemson University (2018-Present)
- **Chair Department Teaching and Learning** in the College of Education, Clemson University (2016-2018)
- **Assistant Chair Department Teaching and Learning** in the College of Education, Clemson University (2015-2016)
- **Founder and Director** for Inquiry in Motion Institute, Clemson University (2006-present)
- **Co-Founder and Director** for CEIMS (Center of Excellence for Innovation in Math and Science) (2008-2017)
- **Program Coordinator** for Online M.Ed. Program, Secondary MAT Program, and Middle Level MAT Program, Clemson University (2015-2017)
- **Program Coordinator** for Curriculum and Instruction Doctoral Program, Clemson University (2015-16)
- **Program Coordinator** for Secondary Education, Clemson University (2010-14)
- Middle/Secondary **Program Coordinator** for College of Education, Butler University (2005-2006)

## RECENT LEADERSHIP HIGHLIGHTS

**M.Ed. Program:** Developed and managed new online M.Ed. program that has grown from 13 to 130 students per year in two years— recognized as #1 in the nation by U.S. News and World Report.

**Teacher Residency Initiative:** Shared leadership in the development and creation of the teacher residency program that is housed in the department of T&L. Continue to lead grant and funding initiatives to help support this effort.

**Middle Level BS Degree Program:** Facilitated development of new undergraduate ML program. Board of Trustees has approved and state department approval underway. The fiscal model and utilization of resources is very efficient.

**Marketing:** Proposed and then managed the external marketing of our key revenue generating programs in the COE for all three departments. Now in third year, plan has already yielded positive net gains in applicants and revenue with ongoing improvements underway.

**Educational Consultant:** An invited educational consultant for school districts and universities in over 10 states for program evaluation, program improvement, and program reviews.

## K-12 TEACHING EXPERIENCE

**Project HOPE (1998-2001), Putnam City Schools, OKC, OK**

—taught high school science and mathematics

**Putnam City West High School (1996-1998), OKC, OK**

—AP/honors/regular chemistry and physics

**Westminster School (1993-1996), OKC, OK**

—science department chair and eighth grade science teacher

**Putnam City North High School (1992-1993), OKC, OK**

—Chemistry and Environmental Science Teacher

**Northwest Classen High School (1991-1992), OKC, OK**

—Chemistry Teacher

## LICENSURE AND CERTIFICATION

**National Board Teaching Certification (1999-2009)** (Adolescent and Young Adult Science—Physics Specialization)—Awarded by National Board for Professional Teaching Standards

**Grade 7-12 Teaching Certification—(1991-2014)** Oklahoma Department of Education, Oklahoma (Certified in Biology, Chemistry, Physics, and Physical Science)

## PROFESSIONAL DEVELOPMENT

Strategic Leadership Conference (2018), Certificate. Harvard University.

Leadership Academy for Department Chairs (2016), Certificate. Georgetown University.

## PUBLICATIONS

### Books

Marshall, J. C. (2019) *Rise to the Challenge: Designing Rigorous Learning that Maximizes Student Success*. Alexandria, VA: ASCD. [Featured book for members, July, 2019]

Marshall, J. C. (2016) *The Highly Effective Teacher: 7 Classroom-Tested Practices That Foster Student Success*. Alexandria, VA: ASCD. [Featured book for members, April, 2016]

Marshall, J. C. (2014) *Overcoming Student Apathy: Succeeding with All Learners*. 2<sup>nd</sup> Ed. Lanham, MD: Rowman & Littlefield Publishers, Inc.

Marshall, J. C. (2013). *Succeeding with Inquiry in Science and Math Classrooms*. Alexandria, VA: ASCD and NSTA.

Marshall, J. C. & Horton, R. M. (2009) *Developing, Assessing, and Sustaining Inquiry-Based Instruction: A Guide for Math and Science Teachers and Leaders*. Germany: VDM Verlag.

Marshall, J. C. (2008) *Overcoming Student Apathy: Motivating Students for Academic Success*. Lanham, MD: Rowman & Littlefield Publishers, Inc.

### Chapters

Rapa, L. J., Marshall, J. C., Madison, S. M., Flathmann, C., Knijnenburg, B. P., & McNeese, N. J. (2022). Clemson University's Teacher Learning Progression Program: Personalized Advanced Credentials for Teachers. In *Handbook of Research on Credential Innovations for Inclusive Pathways to Professions* (pp. 313-334). IGI Global. doi: 10.4018/978-1-7998-3820-3.ch016

Marshall, J. C., Padilla, M. J., & Horton, R. M. (2013). Improving and sustaining inquiry-based teaching and learning in South Carolina middle school science programs. In B. Wojnowski & C. Pea (Eds.), *Models and Approaches to STEM Professional Development*. Arlington, VA: NSTA.

Marshall, J. C. (2013). Measuring and facilitating highly effective inquiry-based teaching and learning in science classrooms. In M. S. Khine & I. M. Saleh (Eds.), *Approaches and strategies in next generation science learning* (pp. 290-306). Hershey, PA: Information Science Reference.

Marshall, J. C. (2012). Apathy in Learning. In N. Seel (Ed.), *Encyclopedia of the Science of Learning*. New York, NY: Springer.

### National Refereed Journal Articles

Smart, J., Marshall, J., & Alston, D. (In Review). Reducing measurement error in teacher evaluation: A mixed methods study of rater variability in classroom observational data.

*Journal of Mixed Methods Research.*

- Alston, D., Marshall, J. C., & Smart, J. B. (2020). Differentiating between the Different Levels of Inquiry Instruction: Classroom Dynamics That Characterize the Quality of Inquiry Instruction. *Science Educator*, 27(2), 81-91.
- Lotter, C., Carnes, N., Marshall, J. C., Hoppmann, R., Kiernan, D. A., Barth, S. G., & Smith, C. (2019). Teachers' Content Knowledge, Beliefs, and Practice after a Project-Based Professional Development Program with Ultrasound Scanning. *Journal of Science Teacher Education*, 1-24. doi:10.1080/1046560X.2019.1705535
- White, C., Marshall, J. C., & Alston, D. M. (2019). Empirically supporting school STEM culture as a cultural aspect within a school. *School Science and Mathematics*, 119(6), 299-311. doi: 10.1111/ssm.12356
- Cian, H., Marshall, J. C., & Cook, M. (2019). Formatively Assessing NGSS: Three Models of Formative Assessment for Addressing NGSS Domains. *The Science Teacher*, 86(6), 44-49.
- Cian, H., Marshall, J. C., & Qian, M. (2018). Inquiry Classroom Patterns of Student Cognitive Engagement: An Analysis Using Growth Curve Modeling. *Journal of Science Teacher Education*, 29(4), 326-346. doi:10.1080/1046560X.2018.1456884
- Alston, D. M., Marshall, J. C., & Zambak, V. S. (2017). Inquiry instructional practice in middle school science classes: Applying Vroom's Valence-Instrumentality-Expectancy theory of motivation. *Science Educator*, 26(1), 1-10.
- Marshall, J. C., Smart, J. B., & Alston, D. M. (2017). Inquiry-based instruction: A possible solution to improving student learning of both science concepts and scientific practices. *International Journal for Science and Mathematics*, 15(5), 777-796. doi:10.1007/s10763-016-9718-x
- Zambak, V. S., Alston, D. M., Marshall, J. C., & Tyminski, A. M. (2017). Convincing science teachers for inquiry-based instruction: Guskey's staff development model revisited. *Science Educator*, 25(2), 108-116.
- Odutola, A. O. & Marshall, J. C. (2016). I get it! Moving students from misconceptions to conceptual change. *Science Scope*, 40(2), 31-37.
- Marshall, J. C., Smart, J. B., & Alston, D. M. (2016). Development and validation of Teacher Intentionality of Practice Scale (TIPS): A measure to evaluate and scaffold professional development. *Teaching and Teacher Education*, 59, 159-168. doi:10.1016/j.tate.2016.05.007
- Joyner, R., & Marshall, J. C. (2016). Watch your step! An investigation of carbon footprints. *American Biology Teacher*, 78(4), 312-316. doi:10.1525/abt.2016.78.4.312
- Marshall, J. C. (2015). In Step with the New Science Standards. *Educational Leadership*, 72(4), 16-22.
- Marshall, J. C., & Alston, D. M. (2014). Effective, sustained inquiry-based instruction promotes higher science proficiency among all groups: A five-year analysis. *Journal of Science Teacher Education*, 25(7), 807-821. doi: 10.1007/s10972-014-9401-4

- Higdon, R., Marshall, J. C., & Taylor, S. (2014) What's the Matter? Looking Beyond the Macroscopic. *Science Scope*, 38(1), 4-9.
- Marshall, J. C. & Smart, J. (2013). Teachers' Transformation to Inquiry-Based Instructional Practice. *Creative Education*, 4(2), 132-142. doi: 10.4236/ce.2013.42019.
- Smart, J. B., & Marshall, J. C. (2013). Interactions between classroom discourse, teacher questioning, and student cognitive engagement in middle school science. *Journal of Science Teacher Education*, 24(2), 249-267.
- Marshall, J., Crenshaw, K., & Higdon, R. (2012). Are we looking at the same sun? Exploring the seasons using data analysis. *Science Scope*, 36(1), 54-60.
- Marshall, J. C., Smart, J., Lotter, C., & Sirbu, C. (2011). Comparative analysis of two inquiry observational protocols: Striving to better understand the quality of teacher facilitated inquiry-based instruction. *School Science and Mathematics*, 111(6), 306-315.
- Quigley, C., Marshall, J. C., Deaton, C., Cook, M., & Padilla, M. (2011). Challenges to Inquiry Teaching and Suggestions for How to Meet Them. *Science Educator*, 20(1), 63-70.
- Marshall, J. C., Smart, J., & Horton, R. M. (2011). Tracking perceived and observed growth of inquiry practice: A formative plan to improve professional development experiences. *Science Educator*, 20(1), 14-25.
- Marshall, J. C., & Horton, R. M. (2011). The relationship of teacher facilitated inquiry-based instruction to student higher-order thinking. *School Science and Mathematics*, 111(3), 93-101.
- Marshall, J. C., Smart, J., & Horton, R. M. (2010). The design and validation of EQUIP: An instrument to assess inquiry-based instruction. *International Journal of Science and Mathematics Education*, 8(2), 299-321.
- Marshall, J. C., Horton, B., & Smart, J. (2009). 4E x 2 Instructional Model: Uniting three learning constructs to improve praxis in science and mathematics classrooms. *Journal of Science Teacher Education*, 20(6), 501-516.
- Marshall, J. C., Horton, B., & White, C. (2009). EQUIPPing teachers: A protocol to guide and improve inquiry-based instruction. *The Science Teacher*, 76(4), 46-53.
- Marshall, J. C., Horton, R. M., Igo, B. L., & Switzer, D. M. (2009). K-12 science and mathematics teachers' beliefs about and use of inquiry in the classroom. *International Journal of Science and Mathematics Education*, 7(3), 575-596.
- Marshall, J. C. (2009). Know it, lead it, revise it: The key to success in physics education. *The Physics Teacher*, 47(6), 337-338.
- Horton, R. M., Wiegert, E. M., & Marshall, J. C. (2008). Squaring matrices: Connecting mathematics and science. *Mathematics Teacher*, 102(2), 102-106.
- Marshall, J. C. (2008). An explanatory framework detailing the process and product of high-quality secondary science practice. *Science Educator*, 17(1), 49-63.
- Smart, J., & Marshall, J. (2007). A geometric scavenger hunt: Math and science blend in this integrated outdoor exploration *Science and Children*, 45(2), 36-40.
- Marshall, J., Horton, B., & Austin-Wade, J. (2007). Giving meaning to the numbers—An integrated physics-math class. *The Science Teacher*, 73(2), 36-41.

Marshall, J. (2006) Building knowledge and intrigue. *Science Scope*, 30(2), 34-39.

Marshall, J. (2004). Racing the sun—Inquiry approach to teaching physics. *The Science Teacher*, 71(1), 40-43.

### **Published Refereed Conference Proceedings**

Alston, D. M.; Marshall, J. C.; & Zambak, V. S. (2015, April) *Improving inquiry instructional practice in middle school science classes: Applying Vroom's VIE theory to motivation*. Research Presentation at National Association of Researchers of Science Teaching. Chicago, IL.

Alston, D. M. & Marshall, J. C. (2015, April). *Social-Cognitive Reform Information Processing Typologies (S-CRIPT): A Model for Understanding Teacher Change*. Research Presentation at National Association of Researchers of Science Teaching. Chicago.

Marshall, J. C. & Alston, D. M. (2015, Jan.). Effective, Sustained Inquiry-Based Instruction that Promotes Higher Science Proficiency. Research paper presented at Association of Science Teacher Education. Portland, OR.

Alston, D. M. & Marshall J. C. (2015, Jan.). The Relationship between Individual Differences in Science Teachers' Values and their Perceptions of Inquiry-Based Teaching Practices. Research paper presented at Association of Science Teacher Education. Portland, OR.

Zambak, V. S.; Alston, D. M.; & Marshall, J. C. (2015, Jan.) Convincing science teachers for a practical change towards inquiry-based instruction: Revisiting Guskey's staff development model. Research paper presented at Association of Science Teacher Education. Portland, OR.

Roth, K.; Marshall, J. C.; Taylor, J.; Wilson, C.; & Hvidsten, C. (2014, Apr.). *Impact of Science Professional Development on Student Learning: Four Studies Awaken Dialogue*. Research paper presented at National Association of Researchers of Science Teaching. Pittsburg, PA.

Marshall, J. C.; Alston, D. M. (2014, Jan.). *Transitioning to a New Level of Excellence: How to Bridge from NGSS to New Instructional Practice*. Research presentation at Association of Science Teacher Education. San Antonio, TX.

Alston, D. M.; Marshall, J. C. (2014, Jan.). Inquiry in Motion: A Quantitative and Qualitative Look at How a Professional Development Program Can Change Teachers' Beliefs about Inquiry-Based Instruction. Research presentation at Association of Science Teacher Education. San Antonio, TX.

Nugent, G. C.; Marshall, J. C.; Pedersen, J.; Minner, D.; & Delisi, J. (2013, March). *Understanding Inquiry Classroom Practice through Measurement of Teacher Inquiry Skills*. Research Paper given at National Association of Researchers of Science Teaching. Puerto Rico.

Marshall, J. C. (2013, March). *Giving up Before the Finish Line: Teacher Transformation Resulting in Improved Student Achievement Takes Time*. Research paper given at National Association of Researchers of Science Teaching. Puerto Rico.

Smart, J. & Marshall, J. C. (2012, April). *Comparative Analysis of Two Inquiry Observational Protocols: Striving to Understand the Quality of Inquiry-Based Instruction*. Research paper presented at AERA. New Orleans, LA.

Marshall, J. C. & Smart J. (2012, Jan.). *Interactions between Classroom Discourse, Teacher Questioning, and Student Cognitive Engagement in Middle School Science*. Research

- paper given at Association of Science Teacher Education (ASTE) international conference. Clearwater, FL.
- Marshall, J. C.; Lotter, C.; & Smart, J. (2012, Jan.). *Measuring the Quality of Inquiry-based Instruction: Comparative Analysis of Two Inquiry Observational Protocols*. Research paper given at Association of Science Teacher Education (ASTE) international conference. Clearwater, FL.
- Marshall, J. C.; Smart, J.; & Lotter, C. (2011, April). *Comparative analysis of two inquiry observational protocols: Striving to understand the quality of inquiry-based instruction*. Research paper presented at NARST. Orlando, FL.
- Marshall, J. C. (2011, Jan). *Teachers' Transformation to Inquiry-Based Instructional Practice*. Research paper given at Association of Science Teacher Education (ASTE) international conference. Minneapolis, MN.
- Marshall, Jeff C. (2011, Jan) *Inquiry Instruction that Facilitates Improved Student Achievement*. Research presentation led at ASTE, Minneapolis, MN.
- Smart, J. & Marshall, J. C. (2010, April). *The Design and Validation of the Electronic Quality of Inquiry Protocol (EQUIP)*. Research paper presented at AERA. Denver, CO.
- Smart, J. & Marshall, J. C. (2010, April). *Interactions between Classroom Discourse, Teacher Questioning, and Student Cognitive Engagement in Middle School Science*. Research paper presented at AERA. Denver, CO.
- Marshall, J. C. (2010, March). *The Relationship of Teacher Facilitated Inquiry-Based Instruction to Student Higher-Order Thinking*. Research paper presented at NARST. Philadelphia, PA
- Marshall, J. C. (2010, March). *EQUIP: A Valid Measure for Assessing Inquiry-Based Instruction*. Research paper presented at NARST. Philadelphia, PA
- Dong, L. & Marshall, J. C. (2009, Oct.). *A Web-based Collaboration Environment for K-12 Math and Science Teachers*. Research paper presented at Frontiers in Education. Saratoga Springs, NY.
- Marshall, J. C. (2009, April). *The creation, validation, and reliability associated with the EQUIP (Electronic Quality of Inquiry Protocol): A measure of inquiry-based instruction*. Research paper presented at National Association of Researchers of Science Teaching (NARST) conference. Orange County, CA.
- Cronin, J., Marshall, J. C., & Xiang, Y. (2009, April). *Assessing the effectiveness of a science and mathematics teacher development program through use of Virtual Comparison Groups*. Paper presented at the National Association of Researchers of Science Teaching (NARST) National Conference.
- Smart, J. & Marshall, J. C (2009, April). *Three Teachers' Approaches to Content Embedded Inquiry-Based Instructional Practice*. Research paper presented at AERA conference. San Diego, CA.
- Marshall, J. C. (2009, Jan.). *K-12 science and mathematics teachers' beliefs about and use of inquiry in the classroom*. Research paper presented at Association of Science Teacher Education (ASTE) international conference. Hartford, CT.
- Smart, J. & Marshall, J. C. (2009, Jan.). *Electronic Quality of Inquiry Protocol (EQUIP): Assessing the quality of inquiry-based instructional practice*. Research paper presented at Association of Science Teacher Education (ASTE) international conference. Hartford, CT.

- Marshall, J. C. (2008, Jan). *4E x 2 Instructional Model: Uniting three learning constructs to improve praxis in science and mathematics classrooms*. Association of Science Teacher Education (ASTE) international conference. St. Louis, MO.
- Marshall, J. C. (2007, Jan.). *Transforming Spaghetti into Meaning: A process approach for constructing successful secondary science practice*. Association for Science Teacher Education (ASTE) Conference. Clearwater Beach, FL.
- Marshall, J. C. (2006, Jan.). *Building individual best practice: A process approach for secondary science practitioners*. Hawaii International Conference on Education. Honolulu, HI.
- Marshall, J. C. (2005, April) *An Emergent Framework for Constructing Individual Best Practices—Leading Secondary Science*. National Association for Research in Science Teaching (NARST) Conference. Dallas, TX.
- Marshall, J. C. (2005, Jan.). *Bridging from status quo to excellence in secondary science instruction*. Association for Science Teacher Education (ASTE) Conference. Colorado Spring, CO.
- Marshall, J. C. (2003, January). *Laying the Foundation for High-Quality Science Instruction—preparing our teachers*. Association for Science Teacher Education (ASTE) Conference. St. Louis, MO.
- Marshall, J. C. (2003, January). *Building successful collaborations between researchers and secondary schools*. Association for Science Teacher Education (ASTE) Conference. St. Louis, MO.

### **State and Regional Refereed Journal Articles**

- Horton, B.; Sloop, B. & Marshall, J. C. (2014). Merging Process Standards and Inquiry: A Model for Mathematics Teachers. *MathMate*, 36(1), 38-44.
- Sloop, B.; Horton, B.; Marshall, J. C.; & Higdon, R. (2014). Mathematical Inquiry: An Instructional Model and Web-Based Lesson-Planning Tool for Creating, Refining, and Sharing Inquiry-Based Lessons. *MathMate*, 36(2), 28-36.
- Marshall, J. (2007, Fall). Uniting the five core propositions and effective teacher dispositions. *Teacher Education Journal of South Carolina*.

## **PRESENTATIONS**

### **National/International Refereed**

- Marshall, J. C. (2021, June). Rise to the Challenge: Designing Rigorous Learning that Maximizes Student Success. Research presentation at Association of Supervision and Curriculum Development (ASCD). Virtual event.
- Marshall, J. C. (2020, March—event canceled). Rise to the Challenge: Designing Rigorous Learning that Maximizes Student Success. Research presentation at Association of Supervision and Curriculum Development (ASCD). Los Angeles, CA.
- Smart, J., Marshall, J., & Alston, D. (2019, April). *Factors Affecting the Reliability of Observational Protocols and Potential Implications for Teacher Evaluation*. Paper accepted for presentation at the annual meeting of the American Educational Research Association, Toronto, Canada.



- Marshall, J. C. (2019, March). The Highly Effective Teacher: 7 Classroom-Tested Practices That Foster Student Success. Research presentation at Association of Supervision and Curriculum Development (ASCD). Chicago, IL.
- Cian, H., Marshall, J. C., & Qian, M. (2018, April). Inquiry Classroom Patterns of Student Cognitive Engagement: An Analysis Using Growth-Curve Modeling. Paper submitted for presentation at American Educational Research Association annual meeting, NY, NY.
- Marshall, J. C. (2018, March). The Highly Effective Teacher: 7 Classroom-Tested Practices That Foster Student Success. Research presentation at Association of Supervision and Curriculum Development (ASCD). Boston, MA.
- Smart, J. B., Marshall, J. C., & Alston, D. M. (2018, April). Reducing measurement error in teacher evaluation: A mixed methods study of rater variability in classroom observational data. Paper submitted for presentation at American Educational Research Association annual meeting, NY, NY.
- Lotter, C., Carnes, N., & Marshall, J. C. (2018, March). Ultrasound infused project-based curriculum: Influence on teachers' content knowledge, beliefs, and practice. Research presentation at National Association for Research in Science Teaching. Atlanta, GA.
- Alston, D. M., Marshall, J. C., & Smart, J.B. (2017, May). *Classroom patterns that characterize the different levels of inquiry instruction*. Research presentation at the International Conference on Education. Athens, Greece.
- Alston, D.M., & Marshall, J. C., (2017, January). *Middle School Science Teachers' Appraisals and Emotional Responses to Challenging Situations that Can Occur when Facilitating Inquiry-based Instruction: A Qualitative Study*. Paper to be presented at Association of Science Teacher Education. Des Moines, IA.
- Alston, D. M., Marshall, J. C., & Smart, J. (2017, April). *Classroom Patterns that Characterize the Different Levels of Inquiry Instruction*. Research presentation at National Association for Research in Science Teaching. San Antonio, TX.
- Marshall, J. C., Smart, J., & Alston, D. (2017, April). Development and Validation of Teacher Intentionality of Practice Scale (TIPS): A Guide for Professional Development. Paper submitted for presentation at American Educational Research Association annual meeting, San Antonio, TX.
- Marshall, J. C. (2017, April). The Highly Effective Teacher: 7 Classroom-Tested Practices That Foster Student Success. Research presentation at Association of Supervision and Curriculum Development (ASCD). Anaheim, CA.
- Marshall, J. C. (2016, April). *19 Steps to Succeed With Inquiry: Evidence, Examples, and Process*. Research presentation at Association of Supervision and Curriculum Development (ASCD). Atlanta, GA.
- Marshall, J., Smart, J., & Alston, D. (2016, April). *The Effect of a Sustained Professional Development in Inquiry-Based Instruction on Student Academic Growth*. Paper submitted for presentation at the annual meeting of the American Educational Research Association, Washington, DC.
- Alston, D. M., Marshall, J. C., & Switzer, D. (2016, April). *Designing and validating an instrument to measure middle and high school science teachers' appraisals and emotional responses when facilitating inquiry-based instruction*. Poster presentation at National Association for Research in Science Teaching. Baltimore, MD.

- Alston, D. M., Marshall, J. C., & Smart, J.B. (2016, April). *Classroom patterns that characterize the different levels of inquiry instruction*. Research presentation at the National Association for Research in Science Teaching. Baltimore, MD.
- White, C. & Marshall, J. C. (2016, January). *Empirically Supporting School STEM Culture as a Cultural Aspect Within a School Community*. Research presentation at Association of Science Teacher Education. Reno, NV.
- White, C. & Marshall, J. C. (2016, January). *The Creation and Validation of an Instrument to Measure School STEM Culture*. Research presentation at Association of Science Teacher Education. Reno, NV.
- Marshall, J. C.; Smart, J. B.; & Alston, D. M. (2016, January). *Inquiry-Based Instruction: A Possible Solution to Improving Student Learning*. Research presentation at Association of Science Teacher Education. Reno, NV.
- Smart, J. B. & Marshall, J. C. (2016, January). *Development and Validation of Teacher Intentionality of Practice Scale (TIPS): A Measure to Evaluate and Scaffold Professional Development*. Research presentation at Association of Science Teacher Education. Reno, NV.
- Alston, D. M., Marshall, J. C., & Switzer, D. (2016, January). *Assessing science teachers' appraisals, negative emotions, and emotion regulation habits when facilitating inquiry-based lessons*. Research presentation at Association of Science Teacher Education. Reno, NV.
- Alston, D. M. & Marshall, J. C. (2016, January). *Investigating what differentiates developing and below inquiry lessons from proficient and above inquiry lessons: Classroom patterns that inform future practice*. Research presentation at Association of Science Teacher Education. Reno, NV.
- Alston, D. M.; Marshall, J. C.; & Zambak, V. S. (2015, April) *Improving inquiry instructional practice in middle school science classes: Applying Vroom's VIE theory to motivation*. Research Presentation at National Association of Researchers of Science Teaching. Chicago, IL.
- Alston, D. M. & Marshall, J. C. (2015, April). *Social-Cognitive Reform Information Processing Typologies (S-CRIPT): A Model for Understanding Teacher Change*. Research Presentation at National Association of Researchers of Science Teaching. Chicago.
- Marshall, J. C. (2015, March). *Improve Student Performance in Science Classrooms: Keys to Effective Learning*. Research presentation at Association of Supervision and Curriculum Development (ASCD). Houston, TX.
- Marshall, J. C. & Alston, D. M. (2015, March). *Make a Difference! Steps to Success with Inquiry: the Evidence, the Examples, the Process*. Research Presentation at National Science Teacher's Association. Chicago, IL.
- Marshall, J. C. & Alston, D. M. (2015, March). *Improve Student Performance in Middle/Secondary Science Classrooms: Keys to Effective Learning*. Research Presentation at National Science Teacher's Association. Chicago, IL.
- Marshall, J. C. & Alston, D. M. (2015, Jan.). *Effective, Sustained Inquiry-Based Instruction that Promotes Higher Science Proficiency*. Research presentation at Association of Science Teacher Education. Portland, OR.
- Alston, D. M. & Marshall J. C. (2015, Jan.). *The Relationship between Individual Differences in Science Teachers' Values and their Perceptions of Inquiry-Based Teaching Practices*. Research presentation at Association of Science Teacher Education. Portland, OR.

- Zambak, V. S.; Alston, D. M.; & Marshall, J. C. (2015, Jan.) Convincing science teachers for a practical change towards inquiry-based instruction: Revisiting Guskey's staff development model. Research presentation at Association of Science Teacher Education. Portland, OR.
- White, C. & Marshall, J. C. (2015, Jan.). The Creation and Validation of an Instrument to Measure School STEM Culture. Research presentation at Association of Science Teacher Education. Portland, OR.
- Roth, K.; Marshall, J. C.; Taylor, J.; Wilson, C.; & Hvidsten, C. (2014, Apr.). *Impact of Science Professional Development on Student Learning: Four Studies Awaken Dialogue*. Research symposium presented at National Association of Researchers of Science Teaching. Pittsburg, PA.
- Marshall, J. C. (2014, Apr.). *Creating effective, sustainable inquiry-based instruction in middle school science classrooms*. Research presentation at National Association of Researchers of Science Teaching. Pittsburg, PA.
- Marshall, J. C.; Alston, D. M. (2014, Jan.). *Transitioning to a New Level of Excellence: How to Bridge from NGSS to New Instructional Practice*. Research presentation at Association of Science Teacher Education. San Antonio, TX.
- Alston, D. M.; Marshall, J. C. (2014, Jan.). *Inquiry in Motion: A Quantitative and Qualitative Look at How a Professional Development Program Can Change Teachers' Beliefs about Inquiry-Based Instruction*. Research presentation at Association of Science Teacher Education. San Antonio, TX.
- Marshall, J. C. (2014, Mar.). *A New Era of Learning: Transforming Math and Science Practice*. Research presentation at Association of Supervision and Curriculum Development (ASCD). Los Angeles, CA.
- Alston, D.M.; Marshall, J. C. (2014, April). *Producing Productive Participants: Developing Teacher Leaders through Sustained Professional Development*. Presentation at National Science Teacher's Association. Boston, MA.
- Marshall, J. C. (2014, April). *ASTE: A Paradigm Shift is Underway—Are You and Your Students Ready?* Research Presentation at National Science Teacher's Association. Boston, MA.
- Zambak, V. S., Alston, D. M., Tyminski, A. M. & Marshall, J. C. (2013, Nov.). *Inquiry in Motion: An Investigation of a Professional Development Program to Change Teachers' Beliefs about Inquiry-Based Instruction*. Paper presented at North American Chapter of the International Group for the Psychology of Mathematics Education. Chicago, IL.
- Nugent, G. C.; Marshall, J. C.; Pedersen, J.; Minner, D.; & Delisi, J. (2013, April). *Understanding Inquiry Classroom Practice through Measurement of Teacher Inquiry Skills*. Research Presentation at National Association of Researchers of Science Teaching. Puerto Rico.
- Marshall, J. C. (2013, April). *Giving up Before the Finish Line: Teacher Transformation Resulting in Improved Student Achievement Takes Time*. Research Presentation at National Association of Researchers of Science Teaching. Puerto Rico.
- Marshall, J. C. (2013, Mar--Proposed). *19 Keys to EQUIP Teachers: Moving from Standards to Effective Practice in Math and Science Classrooms*. Research presentation at Association of Supervision and Curriculum Development (ASCD). Chicago, IL.
- Marshall, J. C. (2013, Mar). *Instruction, Curriculum, and Assessments for a New Era of Learning: Transforming Math and Science Practice*. Research presentation at Association of Supervision and Curriculum Development (ASCD). Chicago, IL.

- Marshall, J. C. (2013, April). *NARST: Thrive with the Next Generation--Keys to Unlocking Student Success*. Research Presentation at National Science Teacher's Association. San Antonio, TX.
- White, C., Marshall, J. C. (2013, January). *The Effects of High School Retesting on College Freshmen in Chemistry*. Presentation at Association of Science Teacher Education. Charleston, SC.
- Smart, J. & Marshall, J. C. (2012, April). *Comparative Analysis of Two Inquiry Observational Protocols: Striving to Understand the Quality of Inquiry-Based Instruction*. Research paper presented at AERA. New Orleans, LA.
- Marshall, J. C. & Higdon, R. (2012, Mar.). *Moving from Activity-Mania to Meaningful Learning*. Research Presentation at National Science Teacher's Association. Indianapolis, IN.
- Higdon, R. & Marshall, J. C. (2012, Mar.). *Transforming Classroom Interactions for Meaningful Science Learning Experiences*. Research Presentation at National Science Teacher's Association. Indianapolis, IN.
- Marshall, J. C. (2012, Mar.). *The Keys to Improved Learning: 19 Ways to Transform Teacher Performance*. Research Presentation at National Science Teacher's Association. Indianapolis, IN.
- Marshall, J. C. (2012, Mar.). *5 Keys to Facilitating Classroom Discourse that Improves Student Achievement*. Research Presentation at National Science Teacher's Association. Indianapolis, IN.
- Marshall, J. C. & Smart J. (2012, Jan.). *Interactions between Classroom Discourse, Teacher Questioning, and Student Cognitive Engagement in Middle School Science*. Research paper given at Association of Science Teacher Education (ASTE) international conference. Clearwater, FL.
- Marshall, J. C.; Lotter, C.; & Smart, J. (2012, Jan.). *Measuring the Quality of Inquiry-based Instruction: Comparative Analysis of Two Inquiry Observational Protocols*. Research paper given at Association of Science Teacher Education (ASTE) international conference. Clearwater, FL.
- Marshall, J. C.; Smart, J.; & Lotter, C. (2011, April). *Comparative analysis of two inquiry observational protocols: Striving to understand the quality of inquiry-based instruction*. Research paper presented at NARST. Orlando, FL.
- Smart, J. & Marshall, J. C. (2011, April). *Discourse and Related Student Cognitive Engagement in Middle School Science Classrooms*. Research paper presented at NARST. Orlando, FL.
- Marshall, J. C. (2011, Mar). *Uniting Formative Assessment, Reflective Practice, and Inquiry to Strengthen Instruction*. Research presentation at Association of Supervision and Curriculum Development (ASCD). San Francisco, CA.
- Marshall, J. C. (2011, Jan). *Teachers' Transformation to Inquiry-Based Instructional Practice*. Research paper given at Association of Science Teacher Education (ASTE) international conference. Minneapolis, MN.
- Marshall, J. C. (2011, Jan) *Inquiry Instruction that Facilitates Improved Student Achievement*. Research presentation led at ASTE, Minneapolis, MN.
- Horton, B. & Marshall, J. C. (2011, Jan.). *Assessing Inquiry-Based Instructional Practice with the Electronic Quality of Inquiry Protocol (EQUIP)*. Research Presentation at Association of Mathematics Teacher Educators. Irvine, CA.

- Smart, J. & Marshall, J. C. (2010, April). *The Design and Validation of the Electronic Quality of Inquiry Protocol (EQUIP)*. Research presentation at AERA. Denver, CO.
- Smart, J. & Marshall, J. C. (2010, April). *Interactions between Classroom Discourse, Teacher Questioning, and Student Cognitive Engagement in Middle School Science*. Research presentation at AERA. Denver, CO.
- Marshall, J. C. (2010, March). *The Relationship of Teacher Facilitated Inquiry-Based Instruction to Student Higher-Order Thinking*. Research paper presented at NARST. Philadelphia, PA.
- Marshall, J. C. (2010, March). *EQUIP: A Valid Measure for Assessing Inquiry-Based Instruction*. Research paper presented at NARST. Philadelphia, PA.
- Marshall, J. C. (2010, Mar.). *EQUIPping Teachers to Achieve Meaningful Inquiry-based Teaching and Learning*. Research Presentation at National Science Teacher's Association. Philadelphia, PA.
- Marshall, J. C. (2010, Mar.). *Inquiring Minds Want to Grow: Building Intentional Practice*. Research Presentation at National Science Teacher's Association. Philadelphia, PA.
- Dong, L. & Marshall, J. C. (2009, Oct.). *A Web-based Collaboration Environment for K-12 Math and Science Teachers*. Research paper presented at Frontiers in Education. Saratoga Springs, NY.
- Marshall, J. C. (2009, April). *The Creation, Validation, and Reliability Associated with the EQUIP (Electronic Quality of Inquiry Protocol): A Measure of Inquiry-Based Instruction*. Research paper presented at National Association of Researchers of Science Teaching (NARST) conference. Orange County, CA.
- Cronin, J., Marshall, J. C., & Xiang, Y. (2009, April). *Assessing the effectiveness of a science and mathematics teacher development program through use of Virtual Comparison Groups*. Paper presented at the National Association of Researchers of Science Teaching (NARST) National Conference.
- Smart, J. & Marshall, J. C. (2009, April). *Three Teachers' Approaches to Content Embedded Inquiry-Based Instructional Practice*. Research paper presented at AERA conference. San Diego, CA.
- Marshall, J. C. (2009, Mar.). *4 Steps for Improving Inquiry-Based Teaching and Learning*. Research Presentation at National Science Teacher's Association. New Orleans, LA.
- Marshall, J. C. (2009, Mar.). *An Innovative Approach to Web-Based, Inquiry-Based Lesson Planning*. Research Presentation at National Science Teacher's Association. New Orleans, LA.
- Marshall, J. C. (2009, Jan.). *K-12 Science and Mathematics Teachers' Beliefs About and Use of Inquiry in the Classroom*. Research paper presented at Association of Science Teacher Education (ASTE) international conference. Hartford, CT.
- Smart, J. & Marshall, J. C. (2009, Jan.). *Electronic Quality of Inquiry Protocol (EQUIP): Assessing the quality of inquiry-based instructional practice*. Research paper presented at Association of Science Teacher Education (ASTE) international conference. Hartford, CT.
- Horton, B. & Marshall, J. C. (2008, Apr.). *An Innovative Model for Mathematical Inquiry: A Guide for Mathematics Teachers and Leaders*. Research Presentation at National Council of Supervisors of Mathematics. Salt Lake, UT.
- Marshall, J. C. (2008, Mar.). *4E x 2 Instructional Model--A New Lens on Planning and Assessing*. Research presentation at National Science Teacher's Association. Boston, MA

- Marshall, J. C. (2008, Jan). *4E x 2 Instructional Model: Uniting Three Learning Constructs to Improve Praxis in Science and Mathematics Classrooms*. Research paper presented at Association of Science Teacher Education (ASTE) international conference. St. Louis, MO.
- Marshall, J. C. (2007, Nov.). *4E x 2 Instructional Model: Promoting Stronger Teaching and Deeper Conceptual Understanding*. Research paper presented at School Science and Mathematics Association annual meeting. Indianapolis, IN.
- Marshall, J. C. (2007, Jan.). *Transforming Spaghetti into Meaning: A process approach for constructing successful secondary science practice*. Research paper presented at Association for Science Teacher Education (ASTE) international conference. Clearwater Beach, FL.
- Marshall, J. C. (2006, Jan.). *Building individual best practice: A process approach for secondary science practitioners*. Research paper presented at Hawaii International Conference on Education. Honolulu, HI.
- Marshall, J. C. (2005, April) *An Emergent Framework for Constructing Individual Best Practices—Leading Secondary Science*. Paper presented at national NARST conference. Dallas, TX.
- Marshall, J. C. (2005, Jan.). *Bridging from status quo to excellence in secondary science instruction*. Paper presented at international ASTE conference. Colorado Spring, CO.
- Marshall, J. C. (2004, Oct.). *Building Excellence in Secondary Science Instruction—Using National Board as the Model*. Paper presented at School Science and Mathematics Association National Conference (SSMA). Atlanta, GA.
- Marshall, J. C. (2003, Jan.). *Laying the Foundation for High-Quality Science Instruction—preparing our teachers*. Research paper presented at the international annual meeting of the Association for the Education of Teachers of Science. St. Louis, MO.
- Marshall, J. C. (2003, Jan.). *Building Successful Collaborations between Researchers and Secondary Schools*. Research paper given at the annual international meeting of the Association for the Education of Teachers of Science. St. Louis, MO.

#### **Invited Presentations, Lectures, Symposia, Articles:**

- Marshall, J. C. (2016, July) Schools That Work Conference. Invited presenter—topic: *The Highly Effective Teacher*. Louisville, KY
- Marshall, J. C. (2016, April) Invited Webinar for ASCD. Over 2000 pre-registered. *The Highly Effective Teacher*.
- Marshall, J. C. (2015, June) Invited Keynote: *Succeeding with Inquiry with All Students*. Mount Teacher Institute. Fredrick, MD.
- Marshall, J. C. (2015, Spring) Invited article for AdvancED Source, *Helping all students succeed: A plan to narrow the achievement gap in STEM education*. <http://www.advanced.org/source/helping-all-students-succeed-plan-narrow-achievement-gap-stem-education>
- Marshall, J. C. (2015, March 31) Invited article for Education Week, Learning by doing—*Three Learning Strategies that Engage and Motivate Students*. Bethesda, MD.
- Marshall, J. C. (2014, Feb.) Guest Lecturer for Grant Writing Course. Clemson University, Clemson, SC.
- Marshall, Jeff C. (2014, February) *Inquiry in Motion*. Presentation given to International Teaching Fellows Program, Clemson University.

- Marshall, J. C. & Hodges, J. (2014, February) *Evidence-based Practices Across the Disciplines*. Research presentation given at Clemson University.
- Marshall, J. C. (2013, Nov.) Guest Lecturer for Biology 8130 Clemson University, Clemson, SC.
- Marshall, J. C. & Horton, R. M. (2012, Feb.) Scaffolding Teacher Effectiveness in Mathematics and Science. Presentation given at Moving from Standards to Practice conference at Clemson University, Clemson, SC.
- Marshall, J. C. & Lotter, C. (2012, Feb.) Content-Embedded Inquiry: Preparing Science Teachers for the New Standards. Presentation given at Moving from Standards to Practice conference at Clemson University, Clemson, SC.
- Marshall, J. C. (2012, Oct.) The Keys to Improved Learning: 19 Ways to Transform Teacher Performance. Keynote presentation given at Noyce Conference, Indianapolis, IN
- Marshall, Jeff C. & Quigley, Cassie (2011, Nov.) *Mastering the Role of PI*. Presentation given at 2011 CAREER Award Regional Forum, Louisiana State University.
- Marshall, Jeff C. (2011, Oct.) *Finding Money to Support your Research*. Presentation given at the HEHD Research Conference.
- Marshall, Jeff C. & Horton, Robert M. (2011, April) *Inquiry in Motion*. Presentation given to International Teaching Fellows Program, Clemson University.
- Marshall, Jeff C. & Horton, Robert M. (2010, May) *Inquiry in Motion—Succeeding with Today's Students*. Keynote presentation given at Greenville County Science Teachers Association Banquet. Greenville, SC.
- Marshall, Jeff C. & Horton, Robert M. (2010, April) *Inquiry in the Mathematics and Science Classroom*. Presentation given to International Teaching Fellows Program, Clemson University.
- Marshall, Jeff C. & Horton, Robert M. (2009, March) *Inquiry in the Mathematics and Science Classroom*. Presentation given to International Teaching Fellows Program, Clemson University.
- Marshall, Jeff C. & Smart, Julie (2009, April) *Electronic Quality of Inquiry Protocol (EQUIP): Development and Implementation of an Observational Protocol for Inquiry-Based Mathematics Instruction*. Presentation given to International Teaching Fellows Program, Clemson University.
- Marshall, Jeff C. & Horton, Robert M. (2009, Spring) *Inquiry in Motion Project*. Presentation given to Raytheon Corporation regarding, Clemson University.
- Marshall, Jeff C. (2007, Nov.) *4E x 2 Instructional Model: Guiding Deeper Learning* presentation given at New York Science Teacher's Association Annual Meeting in Ellenville, NY.
- Marshall, Jeff C. & Horton, Robert M. (2007, Jan.) *Inquiry in Motion: Cars Across the Curriculum* Presentation to NSF in Washington D.C.
- Horton, Robert M. & Marshall, Jeff C. (2007, Jan.) *Inquiry in Motion: Cars Across the Curriculum* Presentation to Department of Education in Washington D.C.
- Marshall, Jeff C. (2006, Mar.). *Wading through the muck: Inquiry/Discovery-based learning*. Guest presentation for College of Pharmacy faculty at Butler University, Indianapolis, IN
- Marshall, Jeff C. (2005, Sept.). *Effectively leading science education in your schools*. Guest presentation for Principal's Leadership Class (part of EPPSP master's program) at Butler University, Indianapolis, IN
- Marshall, Jeff C. (2003, Nov.) *NBPTS—Higher Education Support*. Invited address provided at Indiana Association of Colleges for Teacher Education (IACTE). Indianapolis, IN

- Marshall, Jeff C. (2003, Nov.). *The keys to becoming an effective leader*. Keynote speaker for annual initiation ceremony for Kappa Delta Pi, Butler University Chapter, Indianapolis, IN.
- Marshall, Jeff C. (2003, Nov.). Helping administrators measure and then build quality science programs within their schools. Guest lecturer for ED513 class at Butler University, Indianapolis, IN
- Marshall, Jeff C. (2000, Oct.). Presentation on the needs and status of alternative education, Oklahoma State Board of Education Meeting, OKC, OK

**State/Regional Refereed:**

- Marshall, Jeff C. (2012, Nov.). *The Essential Keys to Improving Learning in Science*. Paper presented at NSTA regional conference in Atlanta, GA.
- Marshall, Jeff C. & Higdon, R. (2011, Nov.). *Transforming Classrooms into Meaningful Learning Experiences*. Paper presented at South Carolina Science Council's annual meeting. Myrtle Beach, SC.
- Higdon, R. & Marshall, Jeff C. (2011, Nov.). *Moving from Activitymania to Meaningful Inquiry-Based Learning*. Paper presented at South Carolina Science Council's annual meeting. Myrtle Beach, SC.
- Marshall, Jeff C. & Higdon, R. (2010, Nov.). *Transforming Classes into Engaging, Thought-provoking, Standards-based Classrooms*. Paper presented at South Carolina Science Council's annual meeting. Myrtle Beach, SC.
- Higdon, R. & Marshall, Jeff C. (2010, Nov.). *A Webtool designed to improve inquiry-based instruction*. Paper presented at South Carolina Science Council's annual meeting. Myrtle Beach, SC.
- Marshall, Jeff C. & Dahlin, Michael (2009, Nov.) *Inquiry in Motion: Teaching Strategies for Accelerating Student Growth*. Paper presented at South Carolina Formative Assessment Conference. Columbia, SC.
- Dahlin, Michael & Marshall, Jeff C. (2009, Nov.) *Program Evaluation using Virtual Control Group Analyses*. Paper presented at South Carolina Formative Assessment Conference. Columbia, SC.
- Marshall, Jeff C. (2009, Nov.). *Building and Implementing a Formative Plan to Improve Inquiry-Based Instruction*. Paper presented at South Carolina Science Council's annual meeting. Myrtle Beach, SC.
- Marshall, Jeff C. (2008, Oct.). *A Dynamic Web-Based, Inquiry-Based Lesson Planning Tool*. Paper presented at Southeastern Association for Science Teacher Education. Columbia, SC.
- Marshall, Jeff C. & Smart, J. (2008, Oct.). *Inquiry in Motion: A model for middle school inquiry-based instruction*. Paper presented at South Carolina Science Council's annual meeting. Myrtle Beach, SC.
- Smart, J. & Marshall, Jeff C. (2008, Oct.). *Inquiry in Motion: A model for elementary inquiry-based instruction*. Paper presented at South Carolina Science Council's annual meeting. Myrtle Beach, SC.
- Marshall, Jeff C.; Horton Robert M.; & Padilla, Michael J. (2008, Sept.). *The Relationship of the 4E x 2 Instructional Model on Teaching and Learning*. Paper presented at the Georgia Partnership for Reform in Science and Mathematics (GAPRISM). Atlanta, GA.



- Marshall, Jeff C. (2007, Oct.). *4E x2 Instructional Model—Uniting Content and Inquiry*. Paper presented at South Carolina Science Council’s annual meeting. Myrtle Beach, SC.
- Grogan, Allison; Bowling, Meghan; & Marshall, Jeff C. (2007, Oct.). *Evaporating, Condensing, or Precipitating: Where Are You in the Water Cycle?* Paper presented at South Carolina Science Council’s annual meeting. Myrtle Beach, SC.
- Davis, Meredith & Marshall, Jeff C. (2007, Oct.). *Cloudy Predictions: An Alternative to Science Fair*. Paper presented at South Carolina Science Council’s annual meeting. Myrtle Beach, SC.
- Marshall, Jeff C. (2006, Oct.). *Uniting the five core propositions and effective teacher dispositions*. Paper presentation given at South Carolina Association of Teacher Educators Annual Conference. Myrtle Beach, SC.
- Marshall, Jeff C. (2006, Feb.). *Inquiry in a standards-based world*. Interactive presentation given at Hoosier Association of Science Teacher, Inc (HASTI). Indianapolis, IN.
- Marshall, Jeff C. (2006, Jan.). *Effective teaching and Leadership strategies to improve science education in our schools*. Interactive presentation given at Indiana Principal Leadership Academy Annual Conference. Indianapolis, IN.
- Marshall, Jeff C. co-presented with Lotter, Christine; and Hayes, Carolyn (2004, Feb.). *Developing Inquiry in Science Classrooms*. Interactive presentation modeling inquiry science teaching presented at Hoosier Association of Science Teacher, Inc State Conference (HASTI). Indianapolis, IN.
- Marshall, Jeff C. co-presented with Moriarty, Cindy; and Kingsley, Matt (2003, Oct.). *National Board Teacher Certification*. Informative presentation given at Association of Teacher Educations Indiana Unit (ATE-I), Nashville, IN.
- Marshall, Jeff C. co-presented with Rhine, Mary Glenn; and Ramanathan, Hema. (2003, Sept.). *Higher Education Roundtable—for higher education faculty who are interested in learning from each other about how the NBPTS certification process can be integrated into standards-based graduate coursework*. Collaborative annual NBPTS conference hosted by Indiana State Teacher’s Association and the Indiana Professional Standards Board. Indianapolis, IN.
- Marshall, Jeff C. co-presented with Hayes, Carolyn; Al-Jabber, Jabber; and Phillipson, Teddie. (2003, Feb.). *Inquiry through Field Trips*. Interactive session modeling effective practices presented at Hoosier Association of Science Teacher, Inc. State Conference (HASTI). Indianapolis, IN.
- Marshall, Jeff C. (2002, Feb.). *National Board Teacher Certification and Presidential Award for Excellence—two great programs that all teachers should know about*. Paper presentation. Paper presented at Hoosier Association of Science Teacher, Inc State Conference (HASTI). Indianapolis, IN.
- Marshall, Jeff C. co-presented with three high school students (2000, Nov.). *Funding Your Dreams—A look at how to fund outstanding science programs*. Create Change Conference—School to Work Conference, OKC, OK.
- Marshall, Jeff C. (2000, July). *A roundtable discussion on achieving National Board Certification*. Oklahoma Vocational and Technical Conference, Tulsa, OK.
- Marshall, Jeff C. (2000, May). *“Racing” the Sun—using solar technologies as a foundation for integrated science curriculum*. School to Work Conference, Tulsa, OK.

### **Workshops:**

- Marshall, J. C. (2017). *The Highly Effective Teacher: 7 Classroom-Tested Practices That Foster Student Success*. Full day invited workshop at Association of Supervision and Curriculum Development (ASCD). Anaheim, CA.
- Marshall, J. C. (2015-16.). Nine days of professional development with Forest Heights STEM Academy. Little Rock, AR.
- Marshall, J. C. (2016, Mar.). Professional development workshop for 30 teachers focusing on inquiry-based instruction. Bergen County Technical High School. Teterboro, NJ.
- Marshall, J. C. (2015, Nov.). Professional development workshop for 80 teachers and teacher leaders focusing on succeeding with inquiry-based instruction. Houston, TX.
- Marshall, J. C. (2015, Oct.). Professional development workshop for Richland Two (600 teachers). Topic: improving classroom discourse through inquiry-based instructional strategies. Columbia, SC.
- Marshall, J. C. (2015, Aug.). Professional development workshop for 75 teachers and teacher leaders focusing on succeeding with inquiry-based instruction. Houston, TX.
- Marshall, J. C. (2015, Aug.). Professional development workshop for 130 teachers focusing on project-based learning. Detroit, MI
- Marshall, J. C. (2014, Nov.). Two-day professional development workshop focusing on maximizing success with inquiry-based instruction. Little Rock, AR.
- Marshall, J. C. (2014, Aug.). *Succeeding with Inquiry in Mathematics and Science Classrooms*. Little Rock, AR.
- Marshall, J. C. (2013, Jan.). *Examining Instructional Effectiveness that Results in Higher Student Achievement: EQUIP App and Video Training Workshop*. ASTE, Charleston, SC
- Marshall, J. C. (2011, Jan) *Inquiry Instruction that Facilitates Improved Student Achievement*. Workshop led at ASTE, Minneapolis, MN
- Horton, Robert M.; Marshall, Jeff C.; & Harrison, Hal. (2009, Feb.) *Stepping into STEM Shoes Career Day Conference*. Co-director of a 1-day planning conference held at Clemson University International Center for Automotive Research (CU-ICAR) in Greenville, SC.
- Marshall, J. C.; Horton, Robert M. (2008, Feb.) *Industry and education: Working together to strengthen the workforce of tomorrow*. Co-director of a one-day conference held at Clemson University International Center for Automotive Research (CU-ICAR) in Greenville, SC.
- Marshall, Jeff C. (2007, Nov.) *Giving meaning to the numbers: Integrating mathematics and science teaching and learning* workshop given at New York Science Teacher's Association Annual Meeting in Ellenville, NY.
- Marshall, Jeff C. (2007, July). *Successfully Constructing Inquiry-Based Science Classrooms*. Invited 4-day workshop given at Butler University for Washington Township Public School teachers. Presented in Indianapolis, IN.
- Marshall, Jeff C. (2006, Oct.). *Science Teacher Literacy Workshop*. Invited workshop for the South Carolina Center of Excellence for Adolescent Literacy and Learning grant. Presented in Columbia, SC.
- Marshall, Jeff C. & Gross, L. (2005, Summer) Collaborative effort with Franklin College working with teachers in Center Grove School District—40 hour summer workshop on a Science-Literacy.
- Marshall, Jeff C. (2004, Summer). *National Board for Professional Teaching Standards (NBPTS) Workshop*. Butler University. Indianapolis, IN.

Marshall, Jeff C. (2002, Feb.). *Sun Racers—A workshop for integrating solar technologies into science and math curriculum*. A 3-hour workshop led for K-12 teachers at Hoosier Association of Science Teacher, Inc. State Conference (HASTI). Indianapolis, IN.

## GRANTS

### Research Grants Funded

- Marshall, J.; Petersen, G.; Rapa, L; McNeese, N. and 6 other senior personnel. **\$3,068,160 Department of Education (SEED Program)**. *Clemson University's STEM Teacher Learning Progression (CU-TLP)*. Funded October, 2020. Role: PI and lead writer.
- Marshall, J. *Moving from Standards to Practice: Leading Tomorrow's Mathematics and Science Education in South Carolina*. **\$16,100 SC Commission on Higher Education Grant**. Approved, August 2012. Role: PI.
- Marshall, J. *Creating Effective, Sustainable Inquiry-Based Instruction in Middle School Classrooms*. **\$598,000 National Science Foundation (CAREER grant)**. Approved Feb., 2010. Role: PI.
- Marshall, J; Horton, R.; & Padilla, M. **\$622,000 South Carolina Center of Excellence: Center of Excellence for Inquiry in Mathematics and Science**. Approved, March 2008. Role PD/PI.
- Brittain, S.; Marshall, J. **\$577,605 (CAREER NSF)**. *The Evolution of Gas in Disks, Setting the Stage for Planet Formation (NSF)*. Submitted August 2008. Resubmitted and awarded August 2009. Role: Consultant.
- Marshall, J. **\$3,500 Summer Research Support Program Award: The Role of the 4E x 2 Instructional Model in Transforming Teaching Practice**. Funded, Summer 2008. Role: PI/PD.
- Marshall, J. & Horton, R. **\$73,000 Departmental funds from Clemson University School of Education**. to fund development and pilot of Inquiry in Motion summer courses. Approved Fall 2006. Role: Principal Investigator.
- Horton, R., Marshall, J., McGaha, J., & Ridgeway, V. **\$9,975 South Carolina EPSCoR Grant: A Science, Math, & Engineering Collaborative Model**. Approved Fall 2006. Role: Co-PI.
- Marshall, J. **\$7,000 Summer Research Support Program Award: 4E x 2: Researching the Theory and Practice of a New Instructional Model**. Role: PI/PD. Funded: Summer 2007.

### Research Grants Submitted

- Agudelo, P.; Marshall, J. and 2 others. **\$498,671 NSF**. Experiment Station Residency: Cultivating Convergence Research. Submitted July 2019. Role: Co-PI.
- Petersen, George; Marshall, J.; and 12 other senior personnel. **\$2.7 million Department of Education**. *Clemson University's STEM Teacher Learning Progression (CU-TLP)*. Submitted May 2018. Role: Co-PI and lead writer.
- Petersen, George; Marshall, J.; and 11 other senior personnel. **\$2.4 million Department of Education**. *Clemson University Teacher Residency: Immersion, Inquiry and Innovation (CU-TRI3)*. Submitted May 2017. Role: Co-PI and lead writer.
- Mcnealy, T.; Marshall, J.; Whitehead, K.; et al. **\$950,000 National Science Foundation**. *Improving Science Communication through Innovations in Idea Generation, Translation, and Engagement*. Submitted January 2015; Role: Co-PI.

- Marshall, J.; Herro, D.; Wang, Z.; & Pargas, R. **\$3.73 Million National Science Foundation DR K-12. Sustained Transformation of Inquiry-Based Learning and Teaching in Science (STILTS): An Effective, Economical Middle School Scale-Up Program.** Submitted December 2012. Role: Lead PI/PD.
- Marshall, J.; Horton, R., Padilla, M.; Wang, J.; Kurfess, T.; Speziale, B.; Cooper, M.; Wagner, J.; Deaton, C; & Baldwin, A. **\$2.85 Million National Science Foundation DR K-12. R&D: Facilitating Effective, Sustainable High-Quality Inquiry-Based Learning in Middle School Science and Mathematics.** Submitted January 2010. Role: Lead PI/PD.
- Smink, J.; Horton, R.; Marshall, J.; Fisk, B.; Padilla, M.; et al. **\$6.98 Million Department of Education. Teacher Quality Partnership Residency Program.** Submitted: July 2009. Role: Co-PI.
- Kurfess, T.; Wagner, J.; Haque, I.; Marshall, J.; et al. **\$4.00 Million US Department of Energy. Project eDUCATE: Preparing the Nest Generation Workforce for Designing Advanced Electric Drive Vehicles.** Submitted: May 2009. Role: Co-PI.
- Marshall, J.; Horton, R., Padilla, M.; Wang, J.; Greenstein, J.; Kurfess, T.; Speziale, B.; Williams, C.; Cooper, M.; Wagner, J.; Deaton, C; & Baldwin, A. **\$3.46 Million National Science Foundation DR K-12. R&D: 4E x 2 Instructional Model—An Inquiry-Based Framework to Transform Instruction in Middle School Math and Science Classrooms.** Submitted January 2009. Role: Lead PI/PD.
- Singh, R.; et al. **\$25 Million Department of Energy (DE-PS02-08ER15944). Energy Frontiers Research Center.** Submitted Sept. 2008. Role: CoPI.
- Ballard, B.; Marshall, J.; Speziale, B.; & Williams, C. **\$5.0 Million National Science Foundation MSP (NSF 08-525). South Carolina Teacher Institute for Integrated Science.** Submitted March 2008. Role CoPI.
- Marshall, J.; Horton, R., Padilla, M.; Wang, J.; Greenstein, J.; Peters, C.; Kurfess, T.; Speziale, B.; Williams, C.; Cooper, M.; Wagner, J.; & Rieck, J. **\$3.96 Million National Science Foundation DR K-12. 4E x 2 Instructional Model—A Framework that Promotes the Use of Content-Embedded Inquiry in Middle School Math and Science Classrooms.** Submitted January 2008. Role PI/PD.
- Marshall, J., Horton, R., Padilla, M., Wang, J., Greenstein, J., Kurfess, T., Williams, C., & Speziale, B. **\$1.5 Million U.S. Department of Education. 4E x 2 Wiki-Lesson Exemplars: A Paradigm for Improving Teaching and Learning in K-12 Mathematics and Science Classrooms.** Submitted July 2007. Role: PI/PD.
- Marshall, J., Horton, R., Malloy, B., & Davis, T. **\$98,965 Clemson University—Research Initiative Fund Program. “Edu-Gaming”—An Innovative Research and Pedagogical Tool for K-12 STEM Teachers.** Submitted Spring 2007. Role: PI/PD.
- Horton, R. & Marshall, J.; **\$780,000 NSF-RII Grant: Building Cyber-Infrastructure for the Inquiry in Motion Institute.** Submitted Summer 2007. Role: Co-investigator.

### **Teaching/Instructional Grants Awarded**

- Marshall, J. & Horton, R. **\$15,000 Funding from Greenville County School District** to fund Inquiry in Motion 2009 summer courses. Approved Fall 2008. Role: PI.
- Marshall, J., Horton, R., & Smart, J. **\$20,000 Funding from Greenville County School District** to fund Inquiry in Motion 2008 summer courses. Approved Fall 2007. Role: PI.
- Marshall, J. & Horton, R. **\$30,000 Funding from Greenville County School District** to fund Inquiry in Motion 2007 summer courses. Approved Fall 2006. Role: PI.

Hamburger, M., Pavlis, G., Boone, W., Brabson, B., & Marshall, J. **\$166,056 Eisenhower Grant: *Teacher training and curricular development in seismology.*** Fall 2002. Role: graduate student responsible for evaluation portion of the grant.

Marshall, J. Solar Project: ***Solar Technologies Program.*** A collaborative project with school district, General Motors, Southwestern Bell, United Way, Sonic, Gulfport Energy, and many others. Total **funding exceeded \$100,000** for the program between 1998-2001.

Marshall, J. **\$10,000 AP Physics Grant** through Oklahoma State Department of Education. Funding received 1996-1998.

## AWARDS, FELLOWSHIPS, & HONORS

### Awards

**Award of Excellence in Research (May, 2010)**, Awarded by the College of Health, Education, and Human Development. Clemson University, Clemson, SC.

**Presidential Award for Excellence in Mathematics and Science Teaching (2000)**. Awarded by the National Science Foundation, National Academies of Science and The White House, Washington, D.C. [First Oklahoma teacher from an alternative education program to be awarded.]

### Fellowships

**National Math/Science Citibank Fellow (1993-1995)**. Awarded by the National Science Foundation, Brown University, and the Coalition of Essential Schools, Providence, RI and Amherst, MA

### Honors

**Featured Member Book for ASCD (April, 2016): *Rise to the Challenge.***

**Featured Member Book for ASCD (April, 2016): *The Highly Effective Teacher.***

**Featured Article for Annual Reading List (2011)**. Tracking perceived and observed growth of inquiry practice: A formative plan to improve professional development experiences. Joint honor from NSTA and NSELA.

**Dean's Fellowship (2001-2004)**. Indiana University, Bloomington, IN

**E. Wayne Gross Scholarship (2001-2003)**. Indiana University, Bloomington, IN. Received scholarship 3 separate times—awarded to encourage research and high academic performance.

**Achasa Beecher Education Scholar Award (2001-2002)**. Indiana University, Bloomington, IN

## COURSES TAUGHT

**Clemson University**, School of Education, Clemson, SC—2006-Current

- Graduate Classes

- EDSEC 8430                      Advanced Science Education Methods
- TTT 7610 (4 sect.)                      Secondary Science Methods
- EDEL 8040 (1 sect.)                      Advanced Teaching Methods in Elementary Schools
- EDSEC 8030 (2 sect.)                      Advanced Teaching Methods in Secondary Schools
- ED 7380 (10 sect.)                      Inquiry in Motion—PD Institute
- ED 991 (numerous sections)                      Doctoral Dissertation Research
- Undergraduate
  - EDSEC 3270 (6 sect.)                      Practicum in Secondary Science
  - EDSEC4270 (3 sect.)                      Teaching Secondary Science
  - EDEL4510 (2 sect.)                      Elementary Methods in Science Education
  - EDSEC 4570 (4 sect.)                      Seminar in Secondary Science Education
  - EDSEC 4470 (7 student teachers) Teaching Internship in Secondary Science
  - BIOL 4820 (2 sect.)                      Advanced Laboratory Techniques
  - EDSC 7700 (1 sect.)                      Science Laboratory and Field Instruction

**Butler University**, College of Education, Indianapolis, IN—2003-2006

- Graduate Classes
  - ED530                                      Foundations of Effective Teaching and Learning
- Undergraduate Classes
  - ED112 (2 sect.)                      Introduction to Education
  - ED227 (2 sect.)                      Introduction to Middle Science Experience
  - ED424 (2 sect.)                      General Methods
  - ED433 (6 sect.)                      Special Methods
  - ED434 (3 sect.)                      Student Teaching Seminar
  - Student Teaching Supervision

**Indiana University**, College of Education, Bloomington, IN—2001-2003

- Undergraduate Classes
  - E328 (3 sect.)                      Science methods for elementary education majors
  - M303 (3 sect.)                      General methods in teaching

**DISSERTATION/THESIS COMMITTEES CHAIRED**

Thesis Committees Chaired: PhD (4), MS (1), BS (2)

- Sunil Pokhrel (PhD, current)
- Yamil Ruiz (PhD, current)
- Danny Alston (PhD, 2016)
- Chris White (PhD, 2015)
- Vincent Alexander (MS, 2006)
- Ali Oler—honor’s thesis (BS, 2006)
- Russ Behler—honor’s thesis (BS, 2005)

Doctoral Thesis Committees served on (4):

- Robbie Higdon (awarded 2017)
- Leann F Iacuone (awarded in 2015)
- Julie Smart (awarded in 2009)
- Santiago Sandi-Urena (awarded 2008)

Masters of Education Committees chaired (200+):

### INVITED REVIEW OF MANUSCRIPTS

#### Book Reviews:

- Final Review for NSTA Press (2011). *Bringing Outdoor Science Into Your Classroom*. A Book Proposal.
- Initial Review for NSTA Press (2011). *Bringing Outdoor Science Into Your Classroom*. A Book Proposal.
- Reviewed for NSTA Press (2010). *101 Easy and Inexpensive Activities for the Schoolyard*.
- Reviewed for NSTA Press (2009). *Outdoor Science Classroom: Easy Lessons & Learning Spaces*.
- Reviewed for Corwin Press (2009), *Differentiated Science Instruction in Grades 3 through 8* by Doug Llewellyn.
- Reviewed for SAGE (2008), *Teaching Inquiry Science in Secondary Schools* by Anton E. Lawson.

#### Journal Manuscripts:

International Journal for Science and Mathematics Education

Journal of College Science Teaching

- Publication Review Panel for Journal of College Science Teaching, 2003—

Journal of Science Teacher Education

Journal of Research in Science Teaching

International Journal of Science Education

Action in Teacher Education

British Journal of Education, Society & Behavioural Science

Evaluation and Program Planning

Frontiers of Education

The Hoosier Science Teacher

- Publication Review Panel 2005-2007

#### Conference Manuscript Reviewer:

- Proposal Evaluator for 2011 National Association of Researchers in Science Teaching (NARST) Conference.
  - Strand 4: Middle and High School Science Education
- Proposal Evaluator for 2011 Association of Science Teacher Education International Conference. Science Teacher Education Strand.
- Proposal Evaluator for 2009 National Association of Researchers in Science Teaching (NARST) Conference.
  - Strand 4: Middle and High School Science Education
  - Strand 7: Pre-Service Science Teacher Education
  - Strand 8: In Service Science Teacher Education
- Proposal Evaluator for 2009 Association of Science Teacher Education International Conference.

- Proposal Evaluator for 2008 National Association of Researchers in Science Teaching (NARST) Conference. Strand 2: Learning: Classroom Contexts and Learner Characteristics
- Proposal Evaluator for 2008 Association of Science Teacher Education International Conference. Pre-service teacher strand.
- Proposal Evaluator for 2008 Association of Science Teacher Education International Conference. Strand 10: College and University Science Education.
- Proposal Evaluator for 2007 National Association of Researchers in Science Teaching (NARST) Conference. Strand 2: Learning: Classroom Contexts and Learner Characteristics
- Proposal Evaluator for 2005 NARST Conference. Strand 4a: Teacher Education: Pre-service.
- Proposal Evaluator for 2004 NARST Conference. Strand 2: Learning: Classroom Contexts and Learner Characteristics
- Proposal Evaluator for 2003 NARST Conference. Strand 2: Learning: Classroom Contexts and Learner Characteristics

## **PROFESSIONAL LEADERSHIP POSITIONS**

### **National**

- NSF-ITEST review panel, October 2019
- NSF-CAREER review panel, Fall 2016
- External program review for Texas Tech University—Spring 2017
- Selected as an ASCD Professional Learning Services Faculty member starting Fall 2014--current.
- National Selection Committee for Presidential Awards, sponsored by NSF and The White House, Aug. 2014.
- Invited reviewer for STEM Center grants for Texas, Feb. 2013.
- National Science Foundation Review Panel for the ITEST program, Jan. 2013.
- National Alliance of Presidential Awardees Summit (selected as a participant in this policy making body that is a collaborative effort between the National Science Foundation and Presidential Awardees in Mathematics and Science Education), Nov. 2011.
- Primary Reviewer for the Next Generation Science Standards for National Research Council and the American Association for the Advancement of Science, 2011-12.
- NAEP (National Assessment of Educational Progress) Panelist for determining science achievement scores 2010.
- NCATE Board of Program Reviewers for NSTA 2009-2013.
- NSTA Pre-Service Program Reviewer for NCATE 2008-2013.
- Conference Strand Coordinator for NARST 2006 conference: Strand 2: Learning—Classroom Contexts

### **State**

- Event Director/Coordinator for CEIMS conference entitled: Moving from Standards to Practice: Leading Tomorrow's Mathematics and Science Education in South Carolina held at Madren Center, Feb. 2012.
- Chaired a program review for BS program in Chemistry Education for Newberry College—State Department of Education, Columbia, SC. Fall, 2008.
- Co-chair of Indiana Academy of Sciences—Youth Committee, Indiana, 2005-2006



- Served on committee to revise IPL Golden Apple Awards (Outstanding State Teacher Recognition Award in math, science, and technology), Indiana

### **University**

- Chair for Council for Research Deans, Clemson University, 2019-present
- Associate Dean for Research and Graduate Studies, Clemson University, 2018-current.
- Department Chair for Teaching and Learning, Clemson University, Nov. 2016—2018.
- Ad Hoc committee member for Provost's merit pay committee, Spring 2017
- Assistant Chair for Department of Teaching and Learning, Clemson University, 2016.
- Search Committee Member for Associate Provost for Undergraduate Studies, Clemson University, 2015.
- Member Ad Hoc committee on Research for SOE (Spring 2014).
- Member of founding Dean search committee for SOE, 2013-14.
- Program Coordinator for Secondary Education for School of Education, Clemson University, Spring 2014.
- Graduate Academic Grievance Committee, Clemson University, 2013-2016.
- Program Coordinator for Secondary Education for School of Education, Clemson University, 2012-13.
- CU Graduate Council Committee Member (TE representative), Clemson University, 2011-2014.
- Program Coordinator for Secondary Education for School of Education, Clemson University, 2011-12.
- Chaired Search Committee for Instructional Technology position (Assistant Level), 2011-12.
- Chaired Search Committee for Instructional Technology position (Assistant/Associate Level), 2011-12.
- School of Education Representative for College of Engineering and Science STEM Education Planning Group, Clemson University, 2011-Current.
- Graduate Academic Integrity committee, Clemson University, 2011-2013.
- Program Coordinator for Secondary Education for School of Education, Clemson University, 2010-11.
- Distinguished Professor Search Committee Member for School of Education, Clemson University, 2007-2008
- Chaired Review of Geology Program, Clemson University, 2006-2007
- Distinguished Professor Search Committee Member for School of Education, Clemson University, 2006-2007
- Search Committee Member for Elementary Science Education position, Clemson University, 2006-2007
- Undergraduate Research Conference coordinator and moderator for College of Education, Butler University, 2004-2006
- Middle/Secondary Program Coordinator for College of Education, Butler University 2005-2006
- Served on College of Education Executive Committee, Butler University, 2004-2006
- Served on the College of Education Administrative Council, Butler University, 2005-2006
- Faculty Affairs Committee, Butler University, 2005-2006

- Member University Honors Committee, College of Education Representative, Butler University, 2005-2006
- Search Committee Member for Biology Position, Butler Univ., 2005-2006
- Search Committee Member for Chemistry Position, Butler Univ., 2005-2006
- Search Committee Member for Science Education Position, Indiana Univ., 2003-2004

### SERVICE

- Guest lecturer for Biological Sciences—working with Graduate TAs to improve teaching effectiveness, Clemson University, Fall 2018.
- Guest lecturer for Biological Sciences—working with Graduate TAs to improve teaching effectiveness, Clemson University, Fall 2017.
- Guest lecturer for Doctoral Seminar—topic: Electronic Quality of Inquiry Protocol (EQUIP)—development and validation, University of Georgia, Sept., 2015.
- Guest lecturer for Biological Sciences—working with Graduate TAs to improve teaching effectiveness, Clemson University, Fall 2015.
- Consultant for the Improving Teacher Quality grant project, "Life Science Connections" at University of South Carolina 2015-16.
- Consultant for the Improving Teacher Quality grant at Southeastern Missouri State University 2014-16.
- Consultant and advisor for new school opening, Forest Heights STEM Academy, Little Rock Arkansas 2014-15.
- Consultant and external evaluator for all 37 Improving Teacher Quality Grants in Texas, 2011-2014.
- Guest lecturer for Biological Sciences—working with Graduate TAs to improve teaching effectiveness, Clemson University, Fall 2014.
- Tenure and Promotion review for University of North Texas 2014.
- Marshall, J. C. & Alston, D. M. *Inquiry in Motion Institute*. Poster presentation at spring research forum, Clemson University, Spring 2014.
- Alston, D. M. & Marshall, J. C. *Improving Inquiry Instructional Practice in Middle School Science Classes: Applying Vroom's VIE Theory of Motivation*. Poster presentation at spring research forum, Clemson University, Spring 2014.
- Guest lecturer for Biological Sciences—working with Graduate TAs to improve teaching effectiveness, Clemson University, Spring 2014.
- Featured in ASCD Education Update as an expert on Next Generation Science Standards—Article entitled: New science standards engineered for depth, by Jennifer Rice Henderson, November 2013, Volume 55, Issue 11.
- Invited submission for Education Week article on the topic of recommendations to new science teachers. July, 2012
- Presentation given to faculty on inquiry-based instruction—Teacher Education meeting Spring 2012.
- Committee for new STEM middle school in Greenville, 2011-current.
- Judge for Invention Convention for Seneca Middle School, Spring 2011.
- Presentation to Anderson Five School Board in effort to support Lakeside Middle School Inquiry Magnet proposal, Spring 2011.

- External Advisor for Lakeside Middle School as they develop into a STEM Magnet school, Fall 2010.
- Invited to present to the new faculty regarding tenure and promotion during a new faculty orientation, Clemson University, Fall 2010.
- External Evaluator for an NSF GK-12 Grant with Costal Carolina (PI: Craig Gilman), 2010-2013.
- Consultant for NIH Grant with Indiana University-Purdue University at Indianapolis. Helping to improve the way that teachers learn to facilitate inquiry based learning. Summer 2010.
- Marshall, J. C.; Horton, R. M.; & Sloop, B. *Inquiry in Motion Institute*. Poster presentation at faculty forum, Clemson University, Spring 2010.
- Mentored Pilipino Teacher, Rochelle Papasin, with the International Teaching Fellows program, Spring 2010.
- Presentation given to Clemson University HEHD Advisory Board regarding research efforts related to Inquiry in Motion.
- Consultant for a Woodrow Wilson Fellow Grant with Indiana University-Purdue University at Indianapolis. Helping to improve the way that teachers learn to facilitate inquiry based learning. Summer 2009-10.
- External Evaluator for an Improving Teacher Quality Grant for University of South Carolina (PI: Christine Lotter), 2007-2010.
- Marshall, J. C.; Horton, R. M.; Smart, J.; & Sloop, B. *Inquiry in Motion Institute: Improving K-12 mathematics and science teaching and learning*. Poster presentation at faculty forum, Clemson University, Spring 2009.
- Smart, J. & Marshall, J. C. *Three Teachers' Approaches to Content Embedded Inquiry-Based Instructional Practice*. Poster presentation at faculty forum, Clemson University, Spring 2009.
- Horton, R. M.; Marshall, J. C.; Padilla, M. J. *Center of Excellence for Inquiry in Mathematics and Science: Improving middle school math and science education*. Poster presentation at faculty forum, Clemson University, Spring 2009.
- Mentored Pilipino Teacher with the International Teaching Fellows program, Spring 2009
- Presentation at Faculty Forum—*Research relating to Inquiry in Motion Project*, Clemson University, April 2008
- Guest Panelist for Doctoral Student Workshop organized by Dave Fleming (topic: job search), Clemson University, Spring 2008
- Judge Regional Science Fair Competition—Madren Center, Clemson University, Feb. 2008
- Guest Panelist for Granting Writing Course organized by Vivian Correa (topic: successful grant writing), Clemson University, Fall 2007
- SPA Task Force Committee Member for School of Education, Clemson University, 2007--
- Evaluate Senior Projects at JL Mann High School, May 2007
- Presentation at Faculty Forum—Inquiry in Motion Program, Clemson University, April 2007
- Judge Regional Science Fair Competition—Madren Center, Clemson University, Feb. 2007
- Judge for IPL Golden Apple Awards (Outstanding State Teacher Recognition Award), Indiana, 2006
- Judge for IPL Golden Apple Awards, Indiana, 2005

- Collaborative effort with Biology Department to redesign the introductory biology classes toward a more inquiry format, Butler University, 2004-06
- Presented to Board of Visitors (topic: National Board Teacher Certification), Spring 2004
- Middle/Secondary Presentation to Pike Partnership, April 2004
- Directed Cadet Teacher Program for Warren and Pike Townships, Indiana, 2004-06
- Butler Top 100 Selection Committee, Jan. 2004
- Active member of the Indiana Science Alliance Committee, Indiana, 2003-06

### **PROFESSIONAL ORGANIZATIONS**

National Science Teachers Association (NSTA)—since 1990  
 National Science Education Leadership Association—since 2008  
 National Association of Researchers in Science Teaching (NARST)—since 2002  
 Association of Science Teacher Education (ASTE—formerly AETS)—since 2002  
 Association for Supervision and Curriculum Development (ASCD)—since 2003  
 South Carolina Science Council—2006-2012.  
 Association of Teacher Educators—Indiana Unit (AETI)—2003-2007  
 Hoosier Association of Science Teachers, Inc. (HASTI)—2001-2007  
 Indiana Academy of Science—2004-2007  
 American Association of Physics Teachers (AAPT)—1995-2000.  
 American Chemical Society (ACS)—1990-1998.

Last Revised: October 7, 2021