Benjamin C. Herman, Ph.D.
Associate Professor, Science Education

EDUCATION

2010 Ph.D. Curriculum and Instruction, Department of Curriculum and Instruction, Iowa State University
Specialization: Science Education
Minor: Quantitative Statistics
Dissertation: *Teaching the nature of science: Practices and associated factors*

2004 M.A.T, Curriculum and Instruction, Department of Curriculum and Instruction, Iowa State University
Specialization: Science Education with Iowa Secondary Science Teaching Endorsements in biology, chemistry, and general science

2002 M.S. Wildlife Resources, Department of Fisheries and Wildlife Resources, University of Idaho
Non-Thesis Research: *The ecology of mountain quail in West Central Idaho*

2000 B.S. Animal Ecology, Department of Animal Ecology, Iowa State University

HONORS AND AWARDS

2019 MU Writing Intensive Teaching Excellence Award

2019 Missouri River Relief 2018 Inspiring the Next Generation Award

2015 National Association for Research in Science Teaching Early Career Research Award

2013 East Asian Science Education Association Outstanding Research Paper Award

2013 Association for Science Teacher Education Award V: Implications of Research for Educational Practice

2013 Reading Literacy Partner of the Year Nominee, Hillsborough County School District. FL.

PROFESSIONAL EXPERIENCE

01/2020 – Current Associate Professor of Science Education
Texas A&M University
Department of Teaching, Learning and Culture
Department of Biology

- Instruct science education courses.
- Actively researching the nature of science in science education, socioscientific issues, and environmental education.

09/2017 – 01/2020	Associate Professor of Science Education University of Missouri Department of Learning, Teaching and Curriculum
08/2015 - 09/2017	Assistant Professor of Science Education University of Missouri Department of Learning, Teaching and Curriculum
08/2010 - 06/2015	Assistant Professor of Science Education University of South Florida Department of Teaching and Learning
08/2008 - 06/2010	Research Assistant, Instructor, and Student Teacher Evaluator Iowa State University School of Education
08/2008 - 12/2008	Research Consultant Iowa State University Virtual Realities Applications Center
05/2008 - 08/2008	Mentor for Native American Interns Iowa State University/USDA Plant Genome Research Outreach Program For Native Americans
08/2005 - 06/2008	Secondary Science Teacher/Cooperating Teacher for Iowa State University Secondary Science Teacher Education Program (chemistry, biology, and investigations of science) Johnston High School, Iowa
08/2004 - 06/2005	Master Instructor-Science (secondary environmental science and chemistry, post-secondary life science) Clark Advanced Learning Center, Indian River State College and Martin County School District, FL
05/2002 - 11/2002	Fisheries Technician Arizona Game and Fish, Phoenix, AZ
08/2000 - 05/2002	Research Assistant and Instructor University of Idaho College of Natural Resources
06/2000 - 08/2000	Limnology Lab Technician Iowa State University Limnology Laboratory Conducted water quality analyses.
06/1999 - 08/1999	Wildlife Technician U.S. Forest Service, Hebgen Lake Station, Montana
08/1998 - 12/1998	Teaching Assistant Iowa State University Department of Animal Ecology

05/1998 - 10/1998	Park Ranger U.S. Army Corps of Engineers, Saylorville Lake, IA
06/1993 - 08/1997	Security Policeman United States Air Force

SCHOLARSHIP ACTIVITIES

Bold names denote graduate students at the time of publication/presentation, underline names denote undergraduate students, ^publications associated with grants, ◆names denote practicing teachers, informal science educators, principles or school district supervisors

REFEREED JOURNAL PUBLICATIONS

20. Zeidler, D. L., Herman, B. C., & Sadler, T. D., (2019). New directions in socioscientific issues research. *Disciplinary and Interdisciplinary Science Education Research*, 1(1), 1-9.

19. Herman, B. C., Owens, D. C., **Oertli, R. T.**, Zangori, L. A. & Newton, M. H. (2019). Exploring the complexity of students' scientific explanations and associated NOS views within a place-based socioscientific issue context. *Science and Education,* 28(3), 329 - 366.

18. Herman, B. C., Olson, J. K. & Clough, M. P. (2019). The role of informal support networks in teaching the nature of science. *Research in Science Education,* 49(1), 191 - 218, https://doi.org/10.1007/s11165-016-9610-2

17. Owens, D. C., Herman, B. C., **Oertli, R. T.,** Lannin, A. A., & Sadler, T. D. (2019). Secondary science and mathematics teachers' environmental issues engagement through socioscientific reasoning. *EURASIAN Journal of Mathematics, Science and Technology Education.* 15(6).

16. Herman, B. C., Zeidler, D. L. & Newton, M. H. (2018). Emotive reasoning through place-based environmental socioscientific issues. *Research in Science Education.* https://doi.org/10.1007/s11165-018-9764-1

15. Herman, B. C. (2018). Students' environmental NOS views, compassion, intent, and action: Impact of place-based socioscientific issues instruction. *Journal of Research in Science Teaching*, 55(4), 600 – 638.

14. Pongsophon, P. & Herman, B. C. (2017). A theory of planned behavior based analysis of TIMSS 2011 to determine factors influencing inquiry teaching practices in high-performing countries. *International Journal of Science Education.* 39(10), 1304 - 1325.

13. Herman, B. C., Clough, M. P. & Olson, J. K. (2017). Pedagogical reflections by secondary science teachers at different NOS implementation levels. *Research in Science Education.* 47(1), 161-184.

12. ^Herman, B. C., Feldman, A. & **Vernaza-Hernandez, V.** (2017). Florida and Puerto Rico secondary science teachers' climate change conceptions and teaching practices. *International Journal of Science and Mathematics Education*. 15(3), 451-471.

11. Zeidler, D. L., Herman, B. C., Clough, M. P., Olson, J. K., Kahn, S., & **Newton, M.** (2016). Humanitas emptor: Reconsidering recent trends and policy in science teacher education, *Journal of Science Teacher Education,* 27(5), 465 - 476.

10. Herman, B. C. & Clough, M. P. (2016). Teachers' longitudinal NOS understanding after having completed a science teacher education program. *International Journal of Science and Mathematics Education,* 14 (S1) 207-227.

9. Wilcox, J., Kruse, J., & Herman, B. C., (2015). Beyond an equation: Explaining density-related phenomena. *The Science Teacher,* 82(2), 28 - 33.

8**.** ^Herman, B. C. (2015). The influence of global warming science views and sociocultural factors on willingness to mitigate global warming, *Science Education.* 1(1), 1-38.

7. Herman, B. C., Clough, M. P. & Olson, J. K. (2013). Association between experienced teachers' NOS implementation and general reform-based science teaching practices (GRBSTP). *Journal of Science Teacher Education.* 24(7), 1077 - 1102.

6. Herman, B. C., Clough, M. P. & Olson, J. K. (2013). Teachers' NOS implementation practices two to five years after having completed an intensive science education program. *Science Education*. 97(2), 271 - 309.

5. Zeidler, D., Herman, B. C., Ruzek, M., Linder, A. & Lin, S. S. (2013). Cross-cultural epistemological orientations to socioscientific issues. *Journal of Research in Science Teaching*. 50(3), 251 - 283.

4. Herman, B. C., Olson, J. K., Colbert, J. T., & Holtz, J. D. (2013). The relationship between environmental free-choice learning and students' learning, attitudes, and policy views about waterways. *International Journal of Science and Mathematics Education*. 11(6), 1327 - 1350.

3. Lee, H., Kyunghee, C., Kim, S., Jungsook, Y., Krajcik, J. S., Herman, B. C. & Zeidler, D. L. (2013). Socioscientific issues as a vehicle for promoting character and values as global citizens. *International Journal of Science Education*. 35(12), 2079 - 2113.

2. Herman, B. C. (2008). Less is more; Stepping away from cookbook labs and moving towards self-written labs to more effectively portray the nature of science. *Iowa Science Teachers Journal.* 35(2), 3-8.

1. Herman, B. C. (2008). Are questions enough? An action research to analyze the effects of questions and non-verbal behaviors on students' responses with suggestions for improving practice. *Iowa Science Teacher's Journal*. 35(3), 12-16.

REFEREED BOOK CHAPTERS

6. Hanuscin, D., **Khajeloo, M.,** & Herman, B. C. (In Press). Research and practice: Classroom assessment of NOS. In B. McComas, (Ed*) Nature of Science in Science Education: Rationales and Strategies*, New York: Springer.

5. Clough, M. P., Herman, B. C., & Olson, J. K. (In Press). Preparing science teachers to overcome institutional constraints and teach the Nature of Science. In B. McComas, (Ed) *Nature of Science in Science Education: Rationales and Strategies*, New York: Springer.

4. Herman B. C., Sadler T. D., Zeidler D. L., & **Newton M. H.** (2018). A socioscientific issues approach to environmental education. In: Reis G., Scott J. (Eds.) *International perspectives on the theory and practice of environmental education: A reader.* Environmental discourses in science education, vol 3. Springer, Cham.

3. Clough, M. P. & Herman, B. C. (2017). The role of history and nature of science in climate change teaching and learning. In Shepardson, D., Roychoudhury, A. & Hirsch, A. (Eds.) *Teaching and Learning about Climate Change: A Framework for Educators.* Routledge.

2. Feldman, A. & Herman, B. C. (2015). Teacher's contextual knowledge. In Gunstone, R. (Ed.) *Encyclopedia of Science Education*, (pp. 1020 -1021) Springer Dordrecht, Heidelberg, New York, London.

1. Herman, B. C. (2013). Convergence of Postman and Vygotsky's perspectives regarding contemporary media's impact on learning and teaching. Chapter 15 (pp. 293-328) in M. P. Clough, J. K. Olson & D. S. Niederhausers (Eds.) *The Nature of Technology: Implications for Teaching and Learning*, Rotterdam: Sense Publishers.

TECHNICAL REPORTS

1. Herman, B. C., Reese, K. P. & Zager, P. (2002). Spring and summer ecology of mountain quail (Oreortyx pictus) in west-central Idaho. *Unpublished technical report on file at Idaho Department of Fish and Game*, Boise, Idaho.

PROCEEDINGS

2. Colbert, J. T., Holtz, J. D. Herman, B. C. & Olson, J. K. (2009). Deep learning: The impact of Skunk River Navy experience on attitudes toward, and understanding of, Iowa's streams. *Proceedings of the 121st Annual Meeting of the Iowa Academy of Science.* Program Abstracts, p. 41.

1. Herman, B. C. (2009). Accurately conveying to secondary school students methodological pluralism and the importance of the research context. *Proceedings for the International History, Philosophy of Science and Teaching Conference.* Notre Dame, IN, June 25, 2009.

RESEARCH MANUSCRIPTS IN PROGRESS

8. Herman, B. C., **Oerltli, R. T., & Poor, S. A.,** (In Progress). Bridging informal place-based and elementary classroom instruction focused on local environmental science issues. Submit to *Journal of Research in Science Teaching*.

7. ^Herman, B. C., (In Progress). Terminology use, science curriculum experiences and secondary marine science students' global warming and climate change engagement. Submit to the *International Research in Geographical and Environmental Education.*

6. Herman, B. C., **Newton, M. H.,** & Zeider, D. (In Progress). Impact of experiential environmental socioscientific issues instruction on post-secondary students' conceptions of environmental issues in the Greater Yellowstone Ecosystem. Submit to the *Journal of Research in Science Teaching*.

5. Herman, B. C., Olson, J. K. & Clough, M. P. (In Progress). Holistic considerations: A model proposing reticulated factors associated with experienced science teachers' NOS teaching practices. Submit to the *Journal of Research in Science Teaching*.

4. Herman, B. C., Kruse, J, & Wilcox, J. (In Progress). Development of an instrument to gauge students' views about the nature of learning in secondary science classrooms. Submit to *International Journal of Science Education*.

3. Wilcox, J., Herman, B. C., & Kruse, J. (In Progress). Let the students in on the secret: The impact of explicit instruction on the nature of learning in a reform-based science classroom. Submit to the *International Journal of Science Education*.

2. Clough, M. P., Herman, B. C., & Smith, J. A. (In Progress). Seamlessly teaching biology content and the nature of science: Impact of historical short stories on post-secondary biology students' NOS understanding. Submit to *Science and Education*.

1. Kruse, J. W., Wilcox, J. L. & Herman, B. C. (In Progress). Modifying student views of cognition: Explicit instruction concerning the nature of thinking and assessing student views. Submit to the *International Journal of Science Education.*

WORKSHOPS

5. Herman, B. C. (2012). *Implementing the NOS effectively in the context of STEM.* Invited workshop presented in support of the USF Research Experience for Teachers in Engineering and Computer Science Site: Water Awareness Research and Education Project, June 26, 2012.

4. Herman, B. C. (2011). *HCPS PSD CACCE debriefing.* Invited workshop session presented at the Hillsborough County Public Schools Marine Science Educators Professional Study Day. August, 17, 2011.

3. Olson, J. K., Clough, M. P., Herman, B. C. & Smith, J. A. (2010). *Facilitating nature of science and inquiry instruction in Algona secondary science classrooms.* Invited workshop provided for Algona secondary science teachers. Iowa State University, Ames, IA.

2. Olson, J. K., Clough, M. P. & Herman, B. C. (2010). *Enhancing supervision practices in secondary science.* Invited workshop provided for university secondary science supervisors and cooperating teachers. Iowa State University, Ames, IA.

1. Olson, J. K., Clough, M. P. & Herman, B. C. (2009). *Partnerships for successful science teaching.* Invited workshop provided for university secondary science supervisors and cooperating teachers. Iowa State University, Ames, IA.

KEYNOTE PRESENTATIONS

1. Herman B. C. (2019). Promoting passionate scientific literacy through place-based socioscientific issues engagement. Invited keynote delivered to the 2019 Iowa Academy of Science Iowa Science Teaching Section Conference, Ankeny, Iowa, Oct. 07, 2019.

INVITED PRESENTATIONS

10. Herman, B. C. (2018). *Integrating nature of science and sociocultural considerations to promote socioscientific engagement.* Presentation delivered as part of the IV International Symposium of Science Teaching (SIEC 2018) Research on Socio-Cultural Perspectives in Science Education Roundtable hosted by Universidad de Vigo in Pontevedra, Spain , June 16, 2018.

9. Herman, B. C. (2018). *Fostering environmental decision-making through nature of science and socioscientific issues research and instruction.* Presentation delivered for the Department of Biological Sciences Seminar Series at Western Michigan University, March 30, 2018.

8. Zeidler, D. L., Herman, B. C., Clough, M., Olson, J. K., Kahn, S., & **Newton, M.**, (2017). *Humanitas emptor: Reconsidering recent trends and policy in science teacher education.* Presented at the European Science Education Research Association Conference, Dublin, Ireland, Aug, 22, 2017.

7. Zeidler, D. & Herman, B. C. (2017). *Cross-cultural epistemological orientations to socioscientific issues.* Invited featured presentation as part of the Epistemological Inquiry from the Journal of Research in Science Teaching Symposium at the European Science Education Research Association Conference, Dublin, Ireland, Aug, 22, 2017.

6. Herman, B. C., (2017). *Promoting functional scientific literacy through the integration of nature of science and socioscientific issues research and instruction.* Invited Distinguished Seminar Lecture presented at the Michigan State University Department of Earth and Environmental Sciences, East Lansing, Michigan, March 24, 2017.

5. Zeidler, D. L. & Herman, B. (2013). *Sociocultural factors of socioscientific issues.* Invited Lecture presented to Department of Chemistry and Biomedical Sciences, Linnaeus University, Kalmar, Sweden. (Concurrent Satellite Presentation to Karlstad University and Umeå University, Sweden.)

4. Herman, B. C. (2013). *Fostering scientific literacy: Reticulated pathways of nature of science and socioscientific issues research.* Invited featured symposium presentation presented at Ewha Womans University, Seoul, Korea, June 31, 2013.

3. Zeidler, D., & Herman, B. C., (2012). *Developing socioscientific issues units for students: Pedagogical concerns and research considerations.* Invited workshop presented at Ewha Womans University, Seoul, Korea, June 01, 2012.

2. Herman, B. C. (2012). *Factors that influence teacher's nature of science practices: Implications for future research.* Presented at Ewha Womans University, Seoul, Korea, May 30, 2012.

1. Zeidler, D., & Herman, B. C., (2012). *Epistemological views of socioscientific issues: A cross-cultural perspective.* Presented at Ewha Womans University, Seoul, Korea, May 29, 2012.

REFEREED PRESENTATIONS
International

56. Herman, B. C., Poor, S, Oertli, T., Schlte, K., & Romaker, B., (2020). *Bridging formal and informal place-based SSI learning contexts: Promoting 4th graders' NOS and environmental views.* Paper presented at the 2020 Association for Science Teacher Education Conference, San Antonio, TX, January 08 - 11, 2020.

55. Zeidler, D. L., Herman, B. C., Kinskey, M., Willis, S., Wickman, K, Mitchell, M., Applebaum, S., Nkrumah., T., (2020). *Influencing students' social and moral compassion through socioscientific issues.* Paper presented at the 2020 Association for Science Teacher Education Conference, San Antonio, TX, January 08 - 11, 2020.

54. Herman, B. C**., Oertli, R. T.,** Owens, D. C., & Zangori, L. A., (2019). *Students' place-based SSI instruction influenced trophic cascade explanations and their association with NOS views.* Paper presented at the 2019 NARST Conference, Baltimore, MD March 31 – April 03, 2019.

53. Herman, B. C., **Oertli, R. T.,** Owens, D. C., & Zangori, L. A., (2019). *Students' scientific explanations and associated NOS views within a place- based socioscientific*

issue context. Paper presented at the 2019 Association for Science Teacher Education Conference, Savannah, GA, January 02 - 05, 2019.

52. Owens, D. C., Herman, B. C., **Oertli, R. T.,** & Sadler, T. D. (2019). *Engaging students in reasoning about socioscientific issues: Are STEM teachers prepared?* Paper presented at the 2019 Association for Science Teacher Education Conference, Savannah, GA, January 02 - 05, 2019.

51. Clough, M. P., Herman, B. C., & Olson, J. K., (2019). *Preparing science teachers to overcome common obstacles and teach the nature of science.* Paper presented at the 2019 Association for Science Teacher Education Conference, Savannah, GA, January 02 - 05, 2019.

50. Herman, B. C. (2018). *Place-based contentious environmental SSI instruction and students' NOS understanding, compassion, and pro-environmental engagement.* Paper presented at the 2018 NARST Conference, Atlanta, GA, March 10 - 13, 2018.

49**.** Pongsophon, P. & Herman, B. C. (2018). *The pivotal role of academic collaborations in boosting confidence in teaching inquiry and inquiry enactment.* Paper presented at the 2018 NARST Conference, Atlanta, GA, March 10 - 13, 2018.

48. Pongsophon, P. & Herman, B. C. (2018). *Contextual factors that influence TIMSS 2015 biology, chemistry, physics performance in twelve diverse countries.* Paper presented at the 2018 NARST Conference, Atlanta, GA, March 10 - 13, 2018.

47. Herman, B. C. (2018). *Place-based contentious environmental socioscientific issues instruction and students' NOS views, compassion, and pro-environmental intent and action.* Paper presented at the 2018 Association for Science Teacher Education Conference, Baltimore, MD, January 03 - 06, 2018.

46. Pongsophon, P. & Herman, B. C. (2018). *What determines inquiry teaching practices in high-performing countries?* Paper presented at the 2018 Association for Science Teacher Education Conference, Baltimore, MD, January 03 - 06, 2018.

45. Herman, B. C., Zeidler, D. L., & **Newton, M.** (2017). *Empathy through place-based environmental socioscientific issues instruction.* Presented at the 2017 European Science Education Research Association Conference, Dublin, Ireland, August 21, 2017.

44. Wilcox, J., Kruse, J., Herman, B., Easter, J., & Edgerly, H., (2017). *The impact of a year-long professional development on elementary teachers' teaching of math and science.* Presented at the 2017 European Science Education Research Association Conference, Dublin, Ireland, August 23, 2017.

43. Herman, B. C., Zeidler, D.L., **Newton, M.** (2017). *Empathy expressed by post-secondary students experiencing place-based SSI instruction about Yellowstone contentious*

environmental issues. Paper presented at the 2017 NARST Conference, San Antonio, TX, April 21 - 25, 2017.

42. Herman, B.C., Zeidler, D.L., **Newton, M.** (2017). *Post-secondary students' empathy expressed through experiencing place-based Yellowstone contentious environmental issues instruction.* Paper presented at the 2017 Association for Science Teacher Education Conference, Des Moines, IA, January, 12 - 14, 2017.

41. **Newton, M.,** Herman, B., Zeidler, D. (2017). *Environmental consciousness and behavior development through experiential SSI instruction*. Paper presented at the 2017 Association for Science Teacher Education Conference, Des Moines, IA, January, 12 - 14, 2017.

40. Herman, B. C., & **Newton, M. H.,** (2016). *Phraseology, science learning and secondary marine science students' global warming and climate change engagement.* Presented at the 2016 NARST Annual International Conference in Baltimore, MD, April, 14 - 17. 2016.

39. Herman, B.C. (2016). *Influence of terminology and science learning experience on secondary students' perceptions of and willingness to mitigate global warming and climate change.* Paper presented at the 2016 Association for Science Teacher Education, Reno, NV, Jan 07 - 10, 2016.

38. Zeidler, D. L., Herman, B. C., **Newton, M. H.**, Kahn, S., Clough, M. P., & Olson, J. K., (2016). *Humanitas emptor: Reconsidering trends and policy in science teacher education.* Paper presented at the 2016 Association for Science Teacher Education Conference, Reno, NV, Jan 07 - 10, 2016.

37. **Newton, M. H.,** Herman, B. C., & Zeidler., D. L. (2016). *The longitudinal association of an experitential environmental SSI course with student conceptualizations and behaviors.* Paper presented at the 2016 Association for Science Teacher Education Conference, Reno, NV, Jan 07 - 10, 2016.

36. Herman, B. C., **Newton, M. H.**, & Zeidler, D. L. (2015). *Impact of socioscientific issues instruction on students' conceptions about contentious Greater Yellowstone Area environmental issues.* Paper presented at the 2015 National Association for Research in Science Teaching Conference, Chicago, IL, April 11 - 14, 2015.

35. Herman, B. C., **Newton, M. H.**, & Zeidler, D. L. (2015). *Impact of experiential environmental socioscientific issues instruction on post – secondary students' conceptions of environmental issues in the Greater Yellowstone Ecosystem.* Paper presented at the 2015 Association for Science Teacher Education Conference, Portland, OR, Jan 07 - 10, 2015.

34. **Newton, M. H**., Herman, B. C., & Zeidler, D. L. (2015). *Conceptual changes in post – secondary students enrolled in an experiential environmental course embedded with*

socioscientific issues instruction. Paper presented at the 2015 Association for Science Teacher Education Conference, Portland, OR, Jan 07 - 10, 2015.

33. Clough, M. P., Herman, B. C., & Olson, J. K. (2015). *Nature of Science Classroom Observation Protocol (NOS-COP).* Paper presented at the 2015 Association for Science Teacher Education Conference, Portland, OR, Jan 07 - 10, 2015.

32. Herman, B. C. (2014). *Secondary marine science students' NOS views, socioeconomic culture and willingness to mitigate global warming.* Paper presented at the 2014 National Association for Research in Science Teaching Conference, Pittsburgh, PA, March, 30 - April 02, 2014.

31. Kruse, J., Clough, M. P., Olson, J. K. & Herman, B. C. (2014). *The nature of technology: Implications for learning, teaching, and teacher education.* Paper presented at the 2014 Association for Science Teacher Education Conference, San Antonio, TX, Jan, 12, 2014.

30. **Newton, M.**, Herman, B. C., & Zeidler, D. L. (2014). *Bridging the gap between environmental education and socioscientific issues.* Paper presented at the 2014 Association for Science Teacher Education Conference, San Antonio, TX, Jan, 11, 2014.

29. Herman, B. C. (2014). *NOS beliefs and socioeconomics: Factors that influence willingness to mitigate global warming.* Paper presented at the 2014 Association for Science Teacher Education Conference, San Antonio, TX, January 10, 2014.

28. Herman, B. C., Clough, M. P. & Olson, J. K. (2013). *Inservice science teachers' NOS teaching practices and factors accounting for those practices: Implications for science teacher education.* Paper presented at the East Asian Association for Science Education Conference, Hong Kong, China, July 4 - 6.

27. Herman, B. C. & Zeidler, D. Z. (2013). *Cross cultural epistemological patterns of reasoning on socioscientific issues.* Paper presented at the East Asian Association for Science Education Conference, Hong Kong, China, July 4 - 6.

26. Kruse, J. W.; Roby, T.; Herman, B. C. & Wilcox, J. L. (2013). *Exploring the relationship between nature of science learning and epistemological beliefs.* Paper presented at the 12th Biennial International History, Philosophy, and Science Teaching Conference. Pittsburgh, PA. June 19 - 22.

25. Herman, B. C., Clough, M. P. & Olson, J. K. (2013). *Association between experienced teachers' NOS implementation and general reform-based science teaching practices (GRBSTP).* Paper presented at the International History and Philosophy Science Teaching Group Conference, Pittsburg, PA, June 19 - 22, 2013.

24. Herman, B. C., Feldman, A., & **Vernaza, V.** (2013). *Secondary science teachers' and students' climate change conceptions and teachers' climate change teaching practices.*

Presented at the National Association for Research in Science Teaching, Rio Grande, PR, April 6 - 9, 2013.

23. Wilcox, J. L., Kruse, J. W. & Herman, B. C. (2013). *Modifying eighth grade science students' views of learning: A quasi-experiement investigating the impact of instruction.* Presented at the National Association for Research in Science Teaching, Rio Grande, PR, April 6 - 9, 2013.

22. Roby, T., Kruse, J. W., Herman, B. C. & Wilcox, J. L. (2013). *The impact of explicit and reflective NOS instruction on students' epistemological beliefs.* Presented at the National Association for Research in Science Teaching, Rio Grande, PR, April 6 - 9, 2013.

21. Herman, B. C., Feldman, A., & **Vernaza, V.** (2013). *Preventing perpetuating naïveté: Secondary science teachers' and students' climate change misconceptions and efforts to allay those misconceptions.* Presented at the Association for Science Teacher Education Conference, Charleston, SC, Jan 9 - 12, 2013.

20. Clough, M. P. Herman, B. C. & Olson, J. K. (2013). *Factors associated with teachers' NOS implementation efforts: Implications for science teacher preparation.* Presented at the Association for Science Teacher Education Conference, Charleston SC, Jan 9 - 12, 2013.

19. Zeidler, D., Herman, B. C. & **Ruzek, M.** (2012). *Cross-cultural comparisons of epistemological beliefs on socioscientific issues.* Presented at the 2012 National Association for Research in Science Teaching, Indianapolis, IN, March 25 - 28, 2012.

18. Herman, B. C., Feldman, A. F., **Vernanza, V**, & Plank, L.◆ (2012). *A climate change education partnership's efforts to research and improve coastal regions climate change education.* Presented at the 2012 National Association for Research in Science Teaching, Indianapolis, IN, March 25 - 28, 2012.

17. Zeidler, D., Herman, B. C. & **Ruzek, M.** (2012). *Epistemological orientations to socioscientific issues in high school students: A cross-cultural perspective*. Presented at the 2012 Association for Science Teacher Education Conference, Clearwater, FL, Jan 04 - 08, 2012.

16. Herman, B. C., Clough, M. P. & Olson, J. K. (2012). *Teachers' NOS implementation practices two to five years after having completed an intensive science education program.* Presented at the 2012 Association for Science Teacher Education Conference, Clearwater, FL, Jan 04 - 08, 2012.

15. Herman, B. C., Feldman, A., Reynolds, C. J., **Vernanza, V.**, Plank, L.◆ & Chapman, A. (2012). *Facilitating coastal climate change education, mitigation, and adaptation in the natural and built environments: Progress of the Coastal Areas Climate Change Education (CACCE) Partnership.* Presented at the 2012 Association for Science Teacher Education Conference, Clearwater, FL, Jan 04 - 08, 2012.

14. Feldman, A. Herman, B. C., **Vernaza-Hernández, V.**, Ryan, J. G., Muller-Karger, F. E., & Gilbes, F. (2011). *Coastal climate change education, mitigation and adaptation in the natural and built environments: Progress of the Coastal Areas Climate Change Education Partnership.* Paper presented at the American Geophysical Union Fall Meeting, San Francisco, California, Dec 5 - 9, 2011.

13. Zeidler, D. L., **Ruzek, M.,** Herman, B. C., **Orasky, J. & Powell, W.,** (2011). *Cross-cultural epistemological orientations to socioscientific issues.* Paper presented at the European Science Education Research Association Conference, Lyon, France. September 05, 2011.

12. Zeidler, D. L., **Ruzek, M. R., Powell, W. A., Orasky, J.** Applebaum, S.◆, Chin, C. C., Shu-Shen, L., Cedric, L., Linder, A. Herbert, M. & Herman, B. C. (2011). *Cross-cultural epistemological orientations to socioscientific issues.* Presented at the National Association for Research in Science Teaching, Orlando, FL, April 06, 2011.

11. Herman, B. C., Clough, M. P. & Olson, J. K. (2011). *Experienced science teachers' NOS teaching practices and associated factors accounting for those practices.* Presented at the National Association for Research in Science Teaching, Orlando, FL, April 06, 2011.

10. Clough, M. P., Herman, B. C. and Olson, J. K. (2011). *Knowing the NOS is one thing, actually teaching it is another: preparing teachers who actually do effectively teach the NOS.* Workshop presented at the 2011 Association for Science Teacher Education Conference in Minneapolis, MN. Jan 19, 2011**.**

9. Herman, B. C., Clough, M. P. & Olson, J. K. (2011). *Inservice teachers' NOS teaching practices and factors from their preservice program that account for those practices.* Presented at the 2011 Association for Science Teacher Education Conference, Minneapolis, MN, Jan 22, 2011.

8. Clough, M. P., Herman, B. C. & Olson, J. K. (2011). *Impact of historical short stories on post-secondary geology students NOS understanding and science attitudes.* Presented at the 2011 Association for Science Teacher Education Conference, Minneapolis, MN, Jan 22, 2011.

7. Herman, B. C. & Clough, M. P. (2010). *Preventing a negative inheritance: Accurately conveying to pre-service teachers methodological pluralism and an accurate understanding of the nature of science through secondary science activities.* Presented at the 2010 Association for Science Teacher Education Conference, Sacramento, CA, Jan 14, 2010.

6. Herman, B. C., Olson, J. K., Colbert, J. T., and Holtz, J. D. (2010). *Environmental service learning: The relationship between participation in the Skunk River Navy and students' learning, personal attitudes, and policy views about Iowa Waterways.* Presented

at the 2010 Association for Science Teacher Education Conference, Sacramento, CA, Jan 14, 2010.

5. Smith, J., Clough, M. P. & Herman, B. C. (2010). *Historical narrative in a high school biology classroom.* Presented at the 2010 Association for Science Teacher Education Conference, Sacramento. CA, Jan 14, 2010.

4. Kruse, J. W., Wilcox, J., & Herman, B. C. (2010). *Learning dispositions: Explicit instruction concerning the nature of learning and assessing students' views on learning.* Presented at the 2010 Association for Science Teacher Education Conference, Sacramento, CA, Jan 14, 2010.

3. Clough, M. P., Herman, B. C., Smith, J., Kruse J. W., & Wilcox, J. (2010). *Seamlessly teaching science content and the nature of science*. Presented at the 2010 Association for Science Teacher Education Conference, Sacramento, CA, Jan 15, 2010.

2. Clough, M. P., Herman, B. C. Kruse, J. W., & Kerton, C. R. (2009). *Instructor and students' response to the use of historical short stories in a post-secondary astronomy course.* Presented at the International History, Philosophy and Science Teaching Conference, Notre Dame, IN, June 26, 2009.

1. Herman, B. C. (2009). *Accurately conveying to secondary school students methodological pluralism and the importance of the research context*. Presented at the International History, Philosophy and Science Teaching Conference, Notre Dame, IN, June 25, 2009.

National

5. Herman, B. C., & Sadler, T. S. (2017). *Science teachers to science teacher educators: How graduate study promotes science learning opportunities for all.* Presented at the National Science Teachers Association Regional Meeting. New Orleans, LA. Dec, 01, 2017.

4. Herman, B. C., Feldman, A. & **Vernaza, V.** (2011). *Breaking the cycle of naivety: A science teacher education program's efforts to educate science teachers about methodological pluralism and climate chance science.* Paper presented at the Association of Public Land Grant Universities Science and Mathematics Teacher Imperative National Conference, Portland, OR, June 09, 2011.

3. Clough, M. P., Herman, B. C. & Smith, J. A. (2010). *Seamlessly teaching biology content and the nature of science: Impact of historical short stories on post-secondary biology students.* Presented at the National Association of Biology Teachers Professional Development Conference, Minneapolis, MN, Nov 03, 2010.

2. Wurtele E. S., Kabala, D., Schneller, W. Brown, T., Long, T., Dickerson, J., Herman, B., Ilarslan, H, Olson, J. & Bassham, D. (2009). *MetaBlast: An immersive interacting*

learning module for cell biology. NCRR Science Education Partnership Award Annual Conference, St. Paul MN, May 18-20, 2009.

1. Herman, B. C. (2009). Using action research to better one's questioning strategies. Presented at the *National Science Teachers Association Annual Conference*, New Orleans, LA, March 19, 2009.

Regional

4. Clough, M. P., Olson, J. K., Ihrig, L. M., Wilcox, J., Bergman, D. J., & Herman, B. C. (2013). *Structure and efficacy of the ISU Secondary Science Teacher Education Program.* Paper presented at the STEM Teacher Educators' Conference, Des Moines, IA. September, 2013.

3. Herman, B. C. (2009). *Accurately conveying to secondary school students methodological pluralism and the importance of the research context*. Presented at the International History, Philosophy and Science Teaching Conference, Notre Dame, IN, June 25, 2009.

2. Herman, B. C. (2009). *ISU Secondary Science Teacher Education graduates' nature of science teaching practices and the factors impacting those practices.* Presented at the 2009 North Central Association of Science Teacher Educators Conference, Dubuque, IA, October 09, 2009.

1. Herman, B. C. (2008). *Action research and the analysis of the effect of questions and non-verbal behaviors on student responses.* Presented at the North Central Association for Science Teacher Education Fall Conference, Winona State University, Winona, MN, October 10, 2008.

State

7. Herman, B. C., ◆Schulte, K., **Oertli, R. T., Poor, S.** & Romaker, B (2018). *Infusing place-based Missouri River instruction into elementary classrooms.* Presented at the 2018 Missouri Green Schools and Environmental Education Conference, Columbia MO, November 2 – 3, 2018.

6. Clough, M. P., Olson, J. K., Ihrig, L. M., Wilcox, J., Bergman, D. J., & Herman, B. C. (2013). *Structure and efficacy of the ISU Secondary Science Teacher Education Program.* Paper presented at the STEM Teacher Educators' Conference, Des Moines, IA. September, 2013.

5. Herman, B. C. (2009). *Using plants and effective teaching strategies to facilitate an understanding of evolution.* Presented at the 2009 Iowa Science Teachers' Conference in Des Moines, IA, October 29, 2009.

4. Herman, B. C., Olson, J. K., Colbert, J. T., & Holtz, J. D. (2009). *Deep learning: The relationship between participating in the Skunk River Navy and students' environmental*

attitudes and understanding. Presented at the 2009 Iowa Science Teachers' Conference in Des Moines, IA, October 29, 2009.

3. Smith, J., Clough, M. P. & Herman, B. C. (2009) *Impact of historical short stories in a 10th grade biology course.* Presented at the 2009 Iowa Science Teachers' Conference in Des Moines, IA, October 29, 2009.

2. Clough, M. P., Olson, J. K., & Herman, B. C. (2008). *The nature of science: Its crucial role in teaching science content.* Presented at the Iowa Science Teachers Conference, Des Moines, IA, October 23, 2008.

1. Herman, B. C. (2007). *Incorporating the nature of science through effective science classroom activities*. Iowa Science Teachers Section of the Iowa Academy of Sciences Fall Conference, October 18, 2007.

Local

1. Herman, B. C., ◆Schulte, K, **Oertli, T. A., Poor, S., &** Romaker, B., (2018). *Bridging informal place-based and elementary classroom instruction focused on local environmental science and engineering issues.* MU Research Day, October 24, 2018.

GRANT ACTIVITY

Funded

6. Herman, B. C., & Rose, C. A. (2018). *Social emotional academic learning in science (SEALS) for inclusive scientific literacy.* Submitted to the University of Missouri Research Board. Amount funded: $26,948. Percent contribution: 90%. Role: Principle Investigator.

5. Herman, B. C. (2016). *Impact of place-based socioscientific issues instruction on secondary students' conceptions of contentious environmental issues.* Agency: ReSTEM Institute, Amount funded: $4,504. Percent contribution: 100%. Role: Principle Investigator.

4. Feldman, A., Herman, B. C., Prevost, L., Plank, L.,◆ & Meisels, G. (2014). *Robert Noyce Teacher Scholarship Program for University of South Florida Science Majors*. Agency: National Science Foundation, Amount funded: $1,199,843. Percent contribution: 3%. Role: Co-Principle Investigator.

3. Kersaint, G., Herman, B. C., & Ellerbrock, C. (2011). *Helios STEM middle school residency program: Transforming STEM teacher preparation for the transition years.* Funding Agency: Helios Education Foundation, Amount funded: $430,000. Percent contribution: 5%. Role: Co-Principle Investigator.

2. Ryan, J., Feldman, A., Muller-Karger, F, & Gilbes, F. (2010). *Coastal areas climate change education partnership (CCEP).* Funding Agency: National Science Foundation, Requested funding: $1,118,604. Status: Funded. Percent contribution: 1%. Role: Senior personnel/Executive committee.

1. Rew, D. & Herman, B. C.(2005). *Project CAPSTONE: contextual application of STEM objectives in interdisciplinary education.* Funding Agency: National Science Foundation. Initially funded at $145,000. Funding extended to $374,998. Percent contribution: 5%. Role: Co-Principle Investigator.

Unfunded

17. Herman, B. C., & Rose, C. A. (2019). *Social emotional academic learning in science (SEALS) for inclusive scientific literacy.* Submitted to the Spencer Foundation, Requested Funding: $49,996. Role: Principle Investigator.

16. Webb, D., Burns, M., Herman, B. C., Terry, C. E., Bonifay, W. E., & Flakne, L. L., (2018). *Missouri center for technology innovation and global skills education in rural schools - MoTIGERS.* Funding Agency: U.S. Department of Education, Requested Funding: 9,999,997. Role: Co-Principle Investigator.

15. Herman, B. C. (2018). *Bridging informal place-based and elementary classroom instruction focused on local environmental science and engineering issues.* Submitted to the University of Missouri Research Council. Requested funding: $10,667. Role: Principle Investigator.

14. Herman, B. C. (2018). *Bridging informal place-based and elementary classroom instruction focused on local environmental science and engineering issues.* Submitted to the University of Missouri Research Council. Requested funding: $9,901. Role: Principle Investigator.

13. Herman, B. C. & Rose, C. (2018). *Social and emotional learning for student inclusiveness and science literacy*. Submitted to the University of Missouri Research Board. Requested funding: $74,990. Role: Principle Investigator.

12. Burns, M., Herman, B. H., Terry, C. E., Bonifay, W. E., Jahnke, I., & Flakne, L. L., Hong, J., Repenning, A. & Webb, D. (2017). *Missouri center for technology innovation and global skills education in rural schools - MoTIGERS.* Funding Agency: U.S. Department of Education, Requested Funding: 9,999,236. Role: Co-Principle Investigator.

11. Herman, B. C. (2017a). *Impact of experiential socioscientific issues instruction on secondary students' contentious environmental engagement.* Submitted to the University of Missouri Research Council. Requested funding: $9,956. Status: Unfunded, Rated in top 1/3rd of submissions. Role: Principle Investigator.

10. Herman, B. C. (2017b). *Impact of experiential socioscientific issues instruction on secondary students' contentious environmental engagement.* Submitted to the University of Missouri Research Council. Requested funding: $9,225. Status: Unfunded, Rated in top middle 1/3rd of submissions. Role: Principle Investigator

9. Clough, M. P., Kruse, J. W., Herman, B. C., & Stanley, M. (2014a).*The story behind the science: Bringing science and scientists to life.* Submitted to the National Science Foundation Discovery Research K-12 (DRK-12) program. Requested funding: $1,071,168. Status: Unfunded, Reviewer ratings: 2 "Goods" and 2 "Fairs". Role: Co-Principle Investigator

8. Clough, M. P., Kruse, J. W., Stanley, M. & Herman, B. C. (2014b). *The story behind the science: Bringing science and scientists to life.* Funding Agency: National Science Foundation, Requested funding: $1,023,316, Status: Unfunded, Rated Competitive, Reviewer ratings: "Good". Role: Co-Principle Investigator

7. Herman, B. C. (2013). *Impact of experiential environmental socioscientific issues instruction on post-secondary students' conceptions of environmental issues in the Greater Yellowstone Ecosystem.* Funding Agency: University of South Florida New Researcher Grant Proposal, Requested funding: $9,988. Status: Unfunded. Role: Principle Investigator.

6. Clough, M. P, Kruse, J. W., Stanley, M., Herman, B. C., & Rider, P. (2013). *The story behind the science: Bringing science and scientists to life.* Funding Agency: National Science Foundation, Requested funding: $959,840, Status: Unfunded, Reviewer ratings: 2 "Very Good" and 2 "Good". Role: Co-Principle Investigator.

5. Meisels, G., Davis, J., Herman, B., Tirado, S., & Planck, L.◆ (2012). *Effectiveness of science specialists in elementary schools.* Funding Agency: National Science Foundation, Requested Funding: $8,000,000, Status: Unfunded. Role: Co-Principle Investigator.

4. Meisels, G., Lewis, A., Herman, B., Tirado, S., & Planck, L.◆ (Co-PI) (2012). *Science specialists in elementary schools: A proposal to the National Science Foundation MSP Program.* Funding Agency: National Science Foundation, Requested Funding: $9,825,187, Status: Unfunded, Rated Competitive, Reviewer ratings: "Very Good" and 4 "Fair". Role: Co-Principle Investigator.

3. Clough, M.P., Kruse, J.W., Herman, B., Stanley, M., Rider, P. (2012). *The story behind the science: Bringing science and scientists to life.* Funding Agency: National Science Foundation, Requested funding: $828,402, Status: Unfunded, Rated Competitive, Reviewer ratings:1 "Excellent", 2 "Very Good" and 1 "Good". Role: Co-Principle Investigator.

2. Clough, M.P., Kruse, J.W., Herman, B., Stanley, M., Rider, P. (2011). *The story behind the science: Bringing science and scientists to life.* Funding Agency: National Science Foundation, Requested funding: $662,630, Status: Unfunded, Rated Competitive,

Reviewer ratings: 2 "Very Good" and 1 "Good" and 1 "Fair". Role: Co-Principle Investigator

1. Meisels, G., Lewis, A., Herman, B., Tirado, S., & Planck, L.◆ (2010). *Science specialists in elementary schools: A proposal to the National Science Foundation MSP Program.* Funding Agency: National Science Foundation, Requested Funding: $9,825187, Status: Unfunded, Rated Competitive, Reviewer ratings: 3 "Very Good" and 2 "Excellent". Role: Co-Principle Investigator.

Pending

3. Herman, B. C., Rose, C. A., Wang., Z., Terry, C. (2019). *Social, emotional, & academic learning in the sciences (SEALS): Promoting scientifically literate citizens.* Funding Agency: Institute of Education Sciences, Requested Funding: $1,399,999. Percent contribution: 70%. Role: Principle Investigator.

2. Clough, M. P., Herman, B. C., Perillan, J., Stanley, M. (2019). *Humanizing STEM to improve learning and restore trust.* Funding Agency: National Science Foundation. Requested Funding: $1,509,046. Percent contribution: 35%. Role: Co-Principal Investigator.

1. Bergin, C., Herman, B. C., Rose, C. A., Clay, C., Slaten, S., Prewitt, S., (2019) *ECHO: Prosocial and positive school climate.* Funding Agency: Institute of Education Sciences, Requested Funding: $1,399,999. Percent contribution: 15%. Role: Co-Principle Investigator.

PRESS RELEASES

2. Barret, B. (2017). *Study: Florida science teachers get climate change wrong.* Retrieved from: http://wuwf.org/post/study-florida-science-teachers-get-climate-change-wrong

1. Breslin, S. (2017). *Science teachers misunderstand climate change as much as the average American, and now they're being fed false information.* Retrieved from: https://weather.com/science/environment/news/climate-change-teachers-false information

TEACHING

Courses Taught

University of Missouri

Undergraduate courses

Fall semesters 2015 - current	LTC4340/4631 Middle and Secondary Methods I: Lecture (writing intensive)
Fall semesters 2015 - current	LTC 4344/4634 Middle and Secondary Methods I: Field

Fall semesters 2015 - current — LTC 1155: Orientation to Science Education

Spring semesters 2018 - current — LTC 4971 Teaching Internship & Capstone

University of South Florida

Undergraduate courses

Spring semesters 2011 – 2015 — SCE 4305 Communication Skills in the Science Classroom

Spring semesters 2013 – 2014 — SCE 4310 Elementary Science Methods

Spring semesters 2014 – 2015 — SCE 4320 Science Methods I

Master's courses

Fall semesters 2010 – 2015 — SCE 6416 Teaching Secondary Biology

Spring semesters 2011 - 2014 — SCE 5564 Reading and Communication in Science Education

Doctoral courses

Fall semester 2011 — SCE 7090 Philosophy and Nature of Science

Fall semester 2012 — SCE 7920 Theories and Practice of Science Teaching and Learning

Courses Restructured (R)/ Developed (D)

University of Missouri

LTC4340/4631 Middle and Secondary Methods I: Lecture (R; writing intensive)

University of South Florida

BSC 3001 Life Science Fundamentals for Teachers (D)

GLY 3001 Earth and Space Science Fundamentals with Lab (D)

CHEM 3001 Physical Science Fundamentals for Teachers (D)

ESE 7944 Collegiate Teaching in Secondary Education (D)

SCE 7090 Philosophy and Nature of Science (D)

SCE 7920 Theories and Practice of Science Teaching and Learning (D)

SCE 5564 Reading and Communication in Science Education (R)

SCE 4305 Communication Skills in the Science Classroom (R)

SCE 4320 Science Methods I (R)

Programs Developed
University of South Florida
B.S. in Chemistry to M.A.T. in Science Education

B.S. in Biomedical Sciences to M.A.T. in Science Education

B.S. in Interdisciplinary Sciences to M.A.T. in Science Education

B.A. in Chemistry to M.A.T. in Science Education

University of Missouri

MEd in Learning, Teaching and Curriculum with Emphasis in Science Education with Certification

PROFESSIONAL LEADERSHIP AND SERVICE

SERVICE TO THE SCIENCE EDUCATION FIELD

2016 - present	Associate Editor for the Journal of Research in Science Teaching
2016 - present	Editorial Board for the Journal of Research in Curriculum & Instruction
2016 - 2019	Editorial Board for the journal K-12 STEM Education
Ongoing	Reviewer for the National Association for Research in Science Teaching (NARST)
Ongoing	Reviewer for the Association For Science Teacher Education (ASTE)
2016 - 2018	National Association for Research in Science Teaching (NARST) Strand 13 (History, Philosophy and Sociology of Science) coordinator
2017	Early Career NARST Representative for the AERA/NSF Data Sharing and Research Transparency at the Article Publishing Stage Workshop. July 25 - 27, 2017.

2016 - 2017	Review panelist for the National Science Foundation Discovery Research PreK-12 (DRK-12) program
2016	Presider for the 2016 ASTE conference
2015 - 2016	Editorial board for the Journal of Research in Science Teaching
2015 - current	Reviewer for the journal Science and Education
2013 - current	Reviewer for the International Journal of Science and Mathematics Education
2011 - 2012	Conference Co-chair 2012 Association for Science Teacher Education (ASTE)
2010 - 2012	Research committee member for NARST • Develop, organize and/or implement various professional development activities for the NARST membership. • Help fill allocated slots at the NSTA conventions. • Conceptualize, develop, and disseminate reviews of research and white papers on appropriate topics.
2010 - 2011	Nature of Science Thread Coordinator for the 2011 Association for Science Teacher Education Conference
2009	Session Moderator at the 2009 International History, Philosophy of Science in Science Teaching Conference Notre Dame, IN,
2009 - 2010	Secretary for the North Central Association of Science Teacher Educators
2006 - 2012	Reviewer for the Iowa Science Teachers' Journal

UNIVERSITY, COLLEGE AND DEPARTMENTAL

University of Missouri

08/2019 – current	LTC Director of Graduate Studies
08/2018 - current	University of Missouri Research Council Committee
08/2018 – current	LTC Academic Personnel Committee
09/2017 – 08/2019	Science Education Emphasis Area Leader
09/2017 – 03/2018	Special Cases Committee
11/2016 - 04/2017	LTC Workload Policy Task Force

09/2015 - current	Instructional Materials Purchase and De-Selection Committee
09/2015 - current	Doctoral Faculty Committee Member
08/2015 - 12/2015	SSI Research Group Faculty Leader

University of South Florida

08/2014 – 06/2015	Doctoral Program Coordinator
2014 - 2015	College of Education Steering Committee Member
2013	Initial Teacher Preparation Coordinators representative during National Council for Accreditation of Teacher Education Team
2012	Booth coordinator USF 2012 Children's Festival
2011 - 2012	Departmental United Faculty Fund Coordinator
2011 - 2012	Science Education representative for the HCPS/CELS Collaborative Initiative between Hillsborough Community Public Schools and USF College of Education
08/2010 – 06/2015	M.A.T in Science Education Advisor

ONGOING PROFESSIONAL MEMBERSHIPS

European Science Education Research Association (ESERA)

Association for Science Teacher Education (ASTE)

International History, Philosophy and Science Teaching Group (IHPST)

National Association for Research in Science Teaching (NARST)

EXTERNAL EVALUATION

1. External evaluator for $525,000 grant titled: *Developing content, pedagogy, and mentorship capacity for improving elementary math and science* funded by the NCLB Title IIA Improving Teacher Quality Program**.** Lead PI: Kruse, J. Funded 2015 – 2018.

DOCTORAL COMMITTEE SERVICE

Chapman, A. (2013). *An investigation of the effects of an authentic science experience among urban high school students.* Status: successful defense, June 4, 2013. Role: committee member.

Huling, M. (2014). *The effect of teachers' epistemological beliefs on practice*. University of South Florida. Status: successful defense, February 1, 2014. Role: committee member.

Ruzek, M. (2014). *Student identity considerations and implications associated with socioscientific issues instruction*. University of South Florida. Status: successful defense, March 6, 2014. Role: committee member.

Powell, W. (2014). *The effects of emotive reasoning on secondary school students' decision-making in the context of socioscientific issues*. Status: successful defense, October 30, 2014. Role: committee member.

Olzap, Dilek (2014). *Science teachers' understandings of science practices before and after the participation in an environmental engineering research experiences for teachers (RET) program,* Status: successful defense, August 28, 2014. Role: committee member.

Kahn, S. (2015). *A conceptual analysis of perspective taking in support of socioscientific reasoning.* Status: Successful dissertation defense, March 31, 2015. Role: committee member.

Newton, M. (2016), *A longitudinal examination of a SSI-embedded experiential environmental education course and environmental behaviors.* Status: Successful dissertation defense, March 02, 2016. Role: co-chair of committee.

Kinslow, A. (2018). *The development and implementation of a heuristic for teaching reflective scientific skepticism within a socio-scientific issue instructional framework.* Status: Successful dissertation defense, April 18, 2018. Role: committee member.

Wulff, E. (2019). *Exploring the relationship between students' science content knowledge and their ability to engage in scientific argumentation.* Status: Successful dissertation defense, Feb 25, 2019. Role: committee member.

Khajeloo, M. (In Progress). Status: Successful proposal defense, Jan 25, 2018. Role: committee member.

Nguyen, H. (In Progress). Status: Comps passed, August 30, 2017. Role: committee member.

Oertli, T. (In Progress). Status: Admitted August, 2019. Role: advisor.

Islam, Muhammad Muinul, (In Progress). Status: Comps passed, Dec 18, 2017. Role: external committee member.

Wilkman, K (In Progress). Status: Comps passed, Nov 21, 2019. Role: external committee member.

MASTER'S ADVISING

Morrow, S. Status: Graduated, May 6, 2011. Role: advisor.

Spera, V. Status: Graduated, May 6, 2011. Role: advisor.

Mclaughlin, C. Status: Graduated, Aug. 5, 2011. Role: advisor.

Mejia, S. Status: Graduated, May 5, 2012. Role: advisor.

Schumacher, A. Status: Graduated, May 5, 2012. Role: advisor.

Whitten, S. Status: Graduated, May 5, 2012. Role: advisor.

Stevenson, B. Status: Graduated, Dec. 12, 2012. Role: advisor.

Proch, M. Status: Graduated, May 4, 2013. Role: advisor.

Le, L. Status: Graduated, Dec. 14, 2013. Role: advisor.

Lee, C. Status: Graduated, Dec. 14, 2013. Role: advisor.

Wood, M. Status: Graduated, Dec. 14, 2013. Role: advisor.

Weeks, S. Status: Graduated, May 3, 2014. Role: advisor.

Vergara, D. Status: Graduated, May 3, 2014. Role: advisor.

Munizza, E. Status: Graduated, May 3, 2014. Role: advisor.

Muench, K. Status: Graduated, Dec. 13, 2014. Role: advisor.

Lugo, D. Status: Graduated, Dec. 13, 2014. Role: advisor.

Marrero, R. Status: Graduated, Dec. 13, 2014. Role: advisor.

Stickley, S. Status: Graduated, Dec. 15, 2014. Role: advisor.

Oertli, T. Status: Graduated, Aug. 15, 2019. Role: advisor.

Poor, S. Status: In Progress, Admitted fall 2018. Role: advisor.

Terrell, R. Status: In Progress, Admitted summer 2019. Role: advisor.

Strassner, D. Status: In Progress, Admitted summer 2019. Role: advisor.

Tidwell, T. Status: In Progress, Admitted summer 2019. Role: advisor.