

CURRICULUM VITAE

Heather J. Johnson

Associate Professor of the Practice of Science Education
Peabody College of Education at Vanderbilt University
Department of Teaching and Learning

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EDUCATION

2012 Northwestern University, Evanston, IL
Doctorate in the Learning Sciences

Dissertation: "Project-Based Teaching: Helping Students Make Project Connections"

Committee Members: Brian Reiser (Chair), Daniel Edelson, Miriam Sherin, Steven McGee

2000 Elmhurst College, Elmhurst, IL
Middle school endorsement

1998 University of Virginia, Charlottesville, VA
Master of Teaching in Elementary Education

1998 University of Virginia, Charlottesville, VA
B. A. in Environmental Science with Distinction

AREAS OF SPECIALIZATION

Students have robust ideas about complex phenomena that make up the world in which they live. These ideas can serve as valuable resources for learning science, or they can present challenges that need to be overcome. The most effective teachers understand that their job is to elicit student ideas and leverage these ideas in instruction to support productive changes in their thinking. When student thinking lies at the center of practice, teachers are able to make informed, meaningful decisions that respond to student needs. My role, commitment, and passion, is to enable teachers and teacher candidates to understand why positioning student thinking at the center of their practice is necessary for ambitious teaching and learning to occur. Framing my practice and research through this lens, I explore two concrete questions with both preservice and inservice teachers. First, how do teachers notice and attend to student thinking in their teaching practice? Second, how can learning opportunities be designed to help teachers facilitate a change in their teaching practice? I explore these questions through my coursework, video clubs, and educative project-based curriculum materials.

PROFESSIONAL EXPERIENCE

Associate Professor of the Practice of Science Education (2018-Present)

Director of Secondary Education (2020-Present)
Vanderbilt University
Peabody College of Education and Human Development
Department of Teaching and Learning

Assistant Professor of the Practice of Science Education (2012-2018)

Vanderbilt University
Peabody College of Education and Human Development
Department of Teaching and Learning

Instructor of the Practice of Science Education (2011-2012)

Vanderbilt University
Peabody College of Education and Human Development
Department of Teaching and Learning

Science Education Consultant

National Geographic Society, Washington, D. C. (2015-Present)

Provide critical feedback on lesson implementation and evaluate educative lesson materials for online access.

National Board for Professional Teaching Standards, Washington, D.C. (2015)

- Designer of ATLAS supplemental materials and user guides to help teacher educators (both preservice and in-service) facilitate student engagement with high school biology cases while also exploring components of the edTPA or NGSS frameworks to analyze teaching.
- ATLAS Tagging: Analyzed the overlap of framework tags in ATLAS in collaboration with others to help determine implications of those findings on future ATLAS development.

It's About Time, NY (2008-2010)

Developed webinars for technology support and provided facilitation support for technology components of reform-based curriculum materials published by *It's About Time Herff Jones Education Division*. Such technology includes My World GIS, and Netlogo.

Meaningful Science Consortium, Northwestern University, Evanston, IL (2007)

Co-facilitated work circle for high school physics and chemistry curriculum development. Developed pacing guide and formative and summative assessments.

The Impact of Online Professional Development Project (2006-2009)

Northwestern University, Evanston, IL & University of Michigan, Ann Arbor, MI

Co-designer and lead facilitator for face-to-face and online professional development workshops around the *Investigation in Environmental Science* curriculum for *The Impact of Online Professional Development* project, a grant funded by NSF.

Science Teacher Grade 8 (1999-2004)

Stanley Field Middle School, Northbrook, IL

Technology Intern Grades PK-4 (1998-1999)

Munich International School, Starnberg, Germany

HONORS AND AWARDS

- 2012 *American Institute of Aeronautics and Astronautics (AIAA) Tennessee Section Special Award*
Recognizes the collaborative outreach effort between Peabody's preservice secondary science students and the Vanderbilt Aerospace club.
- 2012 *NASA University Student Launch Initiative Educational Engagement Award*
A prestigious outreach award from NASA for inspiring school students in the study of rocketry and other science, technology, engineering, and mathematics (STEM) related topics.
- 2009-2010 *Dissertation Year Fellowship*
- 2004-2009 *Center for Curriculum Studies in Science Graduate Fellowship from Northwestern University*
- 1993-1996 *Paul Douglas Teaching Scholarship*

PROFESSIONAL AFFILIATIONS

American Educational Research Association (AERA)
Division K, Teaching and Teacher Education
National Association for the Research in Science Teaching (NARST)
National Science Teachers' Association (NSTA)
Tennessee Science Teachers' Association (TSTA)

PUBLICATIONS AND PAPERS

JOURNAL ARTICLES

Arias, A., Criswell, B., Ellis, J., Escalada, L., Forsythe, M., Johnson, H., Mahar, D., Palmeri, A., Parker, M., & Riccio, J. (under review). The framework for analyzing video in science teacher education – and examples of its broad applicability. *Innovations in Science Teacher Education*.

Johnson, H. J., & Luna, M. (under review). An online video-based epistemic tool for

teachers learning to notice student thinking and ambitious science teaching practices. *International Journal of Science Education*.

- Mawyer, K. K. N., & **Johnson, H. J.** (2019). Eliciting Preservice Teachers' Reading Strategies through Structured Literacy Activities. *Journal of Science Teacher Education*, 30(6), 583-600.
- Johnson, H. J.**, & Mawyer, K. M. (2019). Teacher candidate tool-supported video analysis of students' science thinking. *Journal of Science Teacher Education*, 30(5), 528-547.
- Hougan, E., **Johnson, H. J.**, Novak, D., Foote, C., & Palmeri, A. (2018). Going beyond teacher videos: Exploring the influence of NBCTs video and commentary on teacher candidates' thinking about practice. *Journal of Technology and Teacher Education*, 26(2), 217-248.
- Mawyer, K. M., & **Johnson, H. J.** (2017). A lesson to unlock preservice science teachers' expert reading strategies. *Innovations in Science Teacher Education*, 2(3).
- Forsythe, M., & **Johnson, H. J.** (2017). What to see, what to say: Tips for participating in teacher video clubs. *Tools for Learning Schools*, 20(2).
- Mawyer, K. M., & **Johnson, H. J.** (2017). Read like a scientist. *The Science Teacher*, 84(1), 43-48.
- Johnson, H. J.**, & Cotterman, M. (2015). Developing preservice teachers' knowledge of science teaching through video clubs. *Journal of Science Teacher Education*, 26(4), 393-417.
- Fishman, B.M., Konstantopoulos, S., Kubitskey, B. W., Vath, R., **Johnson, H.**, Park, G., & Edelson, D. (2014). The future of professional development will be designed, not discovered: Response to Moon, Passmore, Reiser, & Michaels, "Beyond Comparisons of Online Versus Face-to-Face PD." *Journal of Teacher Education*, 65(3), 261-264.
- Johnson, H. J.**, & Cotterman, M. (2013). Collaborative efforts to put the 'E' back in STEM. *NSTA Reports*, 25(4), p. 3.
- Fishman, B. M., Vath, R. J., Konstantopoulos, S., **Johnson, H. J.**, & Park, G. (2013). Comparing the impact of online and face-to-face professional development in the context of curriculum implementation. *Journal of Teacher Education*.
- Park, G., **Johnson, H. J.**, Vath, R. J., Kubitskey, B. W., & Fishman, B. J. (2013). Examining the roles of the facilitator in online and face-to-face PD contexts. *Journal of Technology and Teacher Education*, 21(2), 225-245.

Kubitskey, B.W., Vath, R. J., **Johnson, H. J.**, Fishman, B.J., Konstantopoulos, S., & Park, G. (2012). Examining study attrition: Implications for experimental studies of professional development. *Teaching and Teacher Education*, 28(3), 418-427.

BOOK CHAPTERS

Thompson, J., Mawyer, K., **Johnson, H. J.**, Scipio, D., & Luehmann, A. (in press). A Critical AST Framework: Developing Culturally and Linguistically Sustaining AST Practices and Teacher Education Pedagogies.

Hundley, M., **Johnson, H. J.**, & Palmeri, A. (2019). The use of video to examine teaching practice. In L. Barron (Ed.), *A practical guide for edTPA implementation: Lessons from the field*. Charlotte, NC: Information Age Publishing, Inc.

Johnson, H. J., Dunleavy, T. K., & Joseph, N. (2019). Noyce at Vanderbilt: Exploring factors that shape recruitment and retention of Black teachers. In J. Leonard, J. Barnes-Johnson, & A. Burrows (Eds.), *Research on the recruitment, preparation and retention of next generation STEM teachers*. Brill/Sense Publishers.

Krinks, K., **Johnson, H. J.**, & Clark, D. (2018). Digital games in the science classroom: Leveraging internal and external scaffolds during game play. In D. Cvetkovic (Ed.), *Simulation and Gaming*. InTech, DOI: 10.5772/intechopen.72071. Available from: <https://www.intechopen.com/books/simulation-and-gaming/digital-games-in-the-science-classroom-leveraging-internal-and-external-scaffolds-during-game-play>.

Hundley, M., Palmeri, A., Hostetler, A. L., **Johnson, H. J.**, Dunleavy, T., & Self, E. (2018). A thing to be learned: Developmental trajectories, disciplinary practices, and sites of practice in novice teacher learning. In Polly, D., Putnam, M., Petty, T. M., and Good, A. J. *Handbook of Research on Professional Development for Quality Teaching and Learning*, pp. 153-180. Hershey, PA: IGI Global.

Kubitskey, B.K., Fishman, B. M., **Johnson, H. J.**, Mawyer, K. M., & Edelson, D. C. (2014). Curriculum aligned professional development for geospatial education. In J. G. MaKinster, N. M. Trautmann, & M. Barnett (Eds.), *Teaching science and investigating environmental issues with geospatial technology: Designing effective professional development for teachers*.

WORKING AND IN PROGRESS PAPERS

Johnson, H. J., & Forsythe, M. (in progress). Is that a model? Preservice and inservice teachers' interpretations of scientific practices during video club.

Johnson, H. J. (in progress) The sum is greater than the parts: Strategies for supporting connection-making in project-based teaching.

Johnson, H. J., & Luna, M. (in progress). Using an Online Video Annotation Tool to Initiate Preservice Teacher Dialogue around Ambitious Science Teaching.

Mawyer, K., & **Johnson, H. J.** (in progress). How backpocket questions help preservice science teachers notice student thinking.

Johnson, H. J., Mawyer, K., & Wisittanawat, F. (in progress). Preservice teachers' *attention to* and *awareness of* students' resources in the science classroom.

CONFERENCE PROCEEDINGS

Johnson, H. J. (2017). Connection-making challenges in AST implementation. In D. Stroupe & H. Kang (Eds.), *Proceedings of the Science Education at the Crossroads Conference* (pp. 16-17). San Antonio, TX. Available online at www.sciedxroads.org/proceedings2017.html.

Johnson, H. (2013). *Middle school math and science teachers reflecting on practice through video club*. Proceedings of the Society for Information Technology and Teacher Education (SITE). New Orleans, LA.

CURRICULUM AND PROFESSIONAL DEVELOPMENT

Johnson, H. J. (2019). Writer for the Educator Ideas for Education STEM Series. Wrote *Ideas for Use in the Classroom* to accompany seven explorer videos. Example: <https://www.nationalgeographic.org/media/upturning-tornadoes/>. National Geographic Society: Washington, D. C.

RepTals Team (Enyedy, N., Henrie, A., **Johnson, H.**, Keifert, D.) (2019-2020). Representations to Teach and Learn about Science. Summer and Yearlong Professional Development for Elementary MNPS Teachers including face-to-face sessions that incorporate gallery walks and video clubs.

Johnson, H. J. (2018). Teaching Global Climate Change in Your Classroom. <https://account.nationalgeographic.org/courses/global-climate-change-winter2019/>. National Geographic Society: Washington, D. C.

Johnson, H. J. (2016). Making a Decision about the Construction of an Oil Pipeline through British Columbia. <https://www.nationalgeographic.org/lesson/making-decision-about-construction-oil-pipeline-th/>. National Geographic Society: Washington, D. C.

Johnson, H. J. (2015). Making a Decision about Building a road in the Amazon. <https://www.nationalgeographic.org/lesson/making-decision-about-building-road-amazon/>. National Geographic Society: Washington, D. C.

- To support the lesson materials, I also wrote a case study about the proposed Pucallpa-Cruzeiro do Sul Road <https://www.nationalgeographic.org/news/amazonian-road-decision/>.
- 3 activities designed using an Amazon map insert. In addition to English, these activities were translated into Portuguese and Spanish for use in classrooms in Central and South America.

- [Exploring the Relationship between Human Activity and Habitat Loss in the Amazon: https://www.nationalgeographic.org/activity/exploring-relationship-between-human-activity-and-habitat-loss-amazon/](https://www.nationalgeographic.org/activity/exploring-relationship-between-human-activity-and-habitat-loss-amazon/)
- [Exploring the Tradeoffs between Accessing Resources and Protecting the Amazon Rain Forest: https://www.nationalgeographic.org/activity/exploring-tradeoffs-between-accessing-resources-and-protecting-amazon-rain-forest/](https://www.nationalgeographic.org/activity/exploring-tradeoffs-between-accessing-resources-and-protecting-amazon-rain-forest/)
- [Local and Global Effects of Deforestation in the Amazon Rain Forest: https://www.nationalgeographic.org/activity/local-and-global-effects-deforestation-amazon-rain-forest/](https://www.nationalgeographic.org/activity/local-and-global-effects-deforestation-amazon-rain-forest/)
- 2 middle school activities using MapMaker Interactive
 - [Protecting Biodiversity in the Amazon Rain Forest: https://www.nationalgeographic.org/activity/protecting-biodiversity-amazon-rain-forest/](https://www.nationalgeographic.org/activity/protecting-biodiversity-amazon-rain-forest/)
 - [Taking a Position on Human Activity in the Amazon Rain Forest: https://www.nationalgeographic.org/activity/taking-position-human-activity-amazon-rain-forest/](https://www.nationalgeographic.org/activity/taking-position-human-activity-amazon-rain-forest/)

Johnson, H. J. (2014). Using Fieldscope to Make an Informed Decision about the Chesapeake Watershed https://www.nationalgeographic.org/education/lesson/using-fieldscope-make-informed-decision/?ar_a=1. National Geographic Society: Washington, D.C.

INVITED PRESENTATIONS

Kang, H. & **Johnson, H. J.** (2018). Equity and Ambitious Science Teaching. Invited workshop at Ambitious Science Teacher Preparation conference. Michigan State University on June 5th, 2018.

Johnson, H. J. & Criswell, B. (2017). Using ATLAS in Teacher Education. Invited webinar series supported by National Board for Professional Teaching Standards. Held online on March 16th, April 20th, & May 18th, 2017.

Johnson, H. J. & Barron, L. (2016). ATLAS and the edTPA. Webinar prepared for the Science Teacher Preparation ATLAS Project with the National Board for Professional Teaching Standards.

Johnson, H. J. & Hougan, E. J. (2016). ATLAS and research. Webinar prepared for the Science Teacher Preparation ATLAS Project with the National Board for Professional Teaching Standards.

Johnson, H. J. (2016). Using ATLAS in pre-service teacher education. Invited presentation at KyNT3 IHE Conference. Lexington, KY.

Johnson, H. J. (2014). Seeing Teaching Anew: Revisioning the Profession through the Practices of Accomplished Teachers. Invited panelist at the Teaching & Learning Conference presented by the National Board for Professional Teaching Standards, Washington, D.C

LOCAL & NATIONAL CONFERENCE PRESENTATIONS

- Johnson, H.**, Pierson, A., Keifert, D., Henrie, A., Enyedy, N., & Danish, J. (accepted and forthcoming). Modeling for equitable learning with ELs: Examining a professional learning design for elementary teachers. In J. Thompson's, *Equity and elementary science teaching and learning*. Symposium at the National Association of Research in Science Teaching (NARST), Portland, OR.
- Mawyer, K., & **Johnson, H.**, (accepted and forthcoming). Leveraging community asset mapping in preservice secondary science education. Presentation at NARST, Portland, OR.
- Dunleavy, T., Hundley, M., **Johnson, H.**, Palmeri, A., & Peter, J. (accepted and forthcoming). "I used to think... not I think..." Using video clubs to *blow up* and disrupt teacher candidates' perceptions of what counts as student understanding. Presentation at AACTE, Atlanta, GA.
- Arias, A., Criswell, B., Ellis, J., Escalada, L., Forsythe, M., **Johnson, H.**, Palmeri, A., Parker, M., & Riccio, J. (2020). Models of video analysis use across teacher education programs. Presentation at the annual Association of Science Teacher Educators conference. San Antonio, TX.
- Stewart, M., Smith, R., **Johnson, H. J.**, Dunleavy, T.K., & Thompson, I. (2019). Mobilizing STEM talent for STEM teaching: Designing inclusive math classrooms. Poster Presentation at the Annual Noyce Summit, Washington, D.C.
- Johnson, H. J.**, & Dunleavy, T. K. (2019). Mobilizing STEM talent for STEM teaching: Building stronger partnerships to recruit and retain teachers of color. Poster Presentation at the Annual Noyce Summit, Washington, D.C.
- Foster, M., **Johnson, H. J.**, & Conetta, P. (2019). Using video cases to improve teacher candidate success. Presentation at the edTPA Southeast Regional Conference, Franklin, TN.
- Mawyer, K., & **Johnson, H. J.** (2019). How backpocket questions help preservice science teachers notice student thinking. Presentation at the National Association of Research in Science Teaching [NARST], Baltimore, MD.
- Wisittanawat, F., & **Johnson, H. J.** (2019). Preservice teachers' *attention to* and *awareness of* students' resources in the science classroom. Presentation at NARST, Baltimore, MD.
- Johnson, H. J.**, & Mawyer, K. (2019). Attention to equity within AST. In R. Gray's, *Toward a Coherent Vision of Ambitious Science Teacher Preparation*. Symposium at NARST, Baltimore, MD.
- Johnson, H. J.**, & Le, D. (2019). Using authentic video resources to enhance the implementation

of the NGSS. Presentation at the National Science Teachers' Association (NSTA), St. Louis, MO.

- Johnson, H. J.,** Hundley, M., & Palmeri, A. (2019). Leveraging videos of accomplished teaching to support preservice teachers in learning to engage student thinking. Presentation at the Annual Conference of the American Educational Research Association [AERA], Toronto, CA.
- Hougan, E., **Johnson, H. J.,** Novak, D., & Palmeri, A. (2019). Shaping teacher candidates' perceptions of planning, instruction, and assessment using accomplished teachers' video and commentary. Presentation at the Annual Conference of AERA, Toronto, CA.
- Johnson, H. J.,** & Luna, M. J. (2019). Using an online video annotation tool to initiate teacher dialogue around ambitious science teaching. In T. Dobie's, *Discourse in the Digital World*. Symposium at AERA, Toronto, CA.
- Johnson, H. J.** (2018). Secondary preservice science teachers' attention to equity through video-based analysis. In H. Kang's, *Reframing problems of practice in preparing new science teachers for equity in the NGSS era*. Symposium at the National Association of Research in Science Teaching (NARST), Atlanta, GA.
- Krinks, K., **Johnson, H. J.,** & Clark, D. (2018). Digital games in the science classroom: How students use internal and external scaffolds during game play. Presentation at the National Association of Research in Science Teaching (NARST), Atlanta, GA, 2018.
- Mawyer, K. K. N., & **Johnson, H. J.** (2018). Reading with strategic questions. Presentation at the National Science Teachers' Association (NSTA), Atlanta, GA, 2018.
- Johnson, H. J.,** & Le, D. (2018). Using authentic video resources to enhance the implementation of the NGSS. Presentation at the National Science Teachers' Association (NSTA), Atlanta, GA, 2018.
- Johnson, H. J.,** Hundley, M., Hostetler, A., Dunleavy, T., & Self, E. (2018). The story of our teaching: Using video club to examine teaching. Presentation at the Annual Conference of the American Association of Colleges of Teacher Education (AACTE), Baltimore, MD, 2018.
- Stengel, B., Joseph, O., Peterson, R., Self, E., & **Johnson, H. J.** (2018). Exploring signature pedagogies to develop critical dispositions. Presentation at the Annual Conference of the American Association of Colleges of Teacher Education (AACTE), Baltimore, MD, 2018.
- Johnson, H. J.,** Larkin, D., & Mawyer, K. K. N. (2017). Supporting new teachers with Ambitious Science Teaching. Presentation at the annual Noyce Summit, Washington, D.C., July 2017.

- Johnson, H. J. & Dunleavy, T. K.** (2017). Mobilizing STEM talent for STEM teaching: Exploring factors that shape recruitment and retention of black Noyce scholars. Poster presented at the annual Noyce Summit, Washington, D. C., July 2017.
- Johnson, H. J., & Carlson, C.** (2017). Building a pipeline of teaching excellence. Presentation at the Annual Conference for the National Association of State Directors of Teacher Education and Certification, New Orleans, LA, June, 2017.
- Maywer, K. K. N., & **Johnson, H. J.** (2017). Decompressing preservice science teachers' reading strategies. Roundtable paper presented at the Annual Conference of the American Educational Research Association (AERA), San Antonio, TX, April 2017.
- Johnson, H. J., & Mawyer, K. K. N.** (2017). Centralizing student thinking through pre-service teacher video clubs. Poster presented at the National Association for Research in Science Teaching (NARST), San Antonio, TX, April 2017.
- Johnson, H. J., Dunleavy, T. K., & Hundley, M.** (2017). Notice and note: Exploring pre-service teachers' instruction through video analysis. Presentation at National Association for Research in Science Teaching (NARST). San Antonio, TX, April 2017.
- Self, E., Reynolds, D., Pendergrass, E., **Johnson, H. J.**, Hundley, M., Hostetler, A. L., Dunleavy, T., & Dotger, B. (2017). Clinical simulations for culturally responsive teaching in disciplinary literacy and methods courses. Presentation at the Annual Conference of the American Association of Colleges of Teacher Education (AACTE), Tampa, FL, March, 2017.
- Johnson, H. J., Hougan, E., Foote, C., & Palmeri, A.** (2017). Using video and commentary of accomplished teachers to shape the thinking of preservice teachers. Presentation at the Association of Teacher Educators Conference (ATE), Orlando, FL, February, 2017.
- Henrie, A., **Johnson, H. J., & Palmeri, A.** (2016). Learning from expert teachers: Force and motion. Presentation at Tennessee Science Teacher's Association (TSTA). Murfreesboro, TN, December, 2016.
- Hundley, M., Pendergrass, E., **Johnson, H.**, Palmeri, A., Hostetler, A., & Stengel, B. (2016). Framing Academic and Disciplinary Language Practices for Pre-Service Teachers. A paper presented at the annual conference of the American Reading Forum (ARF). Sanibel Island, FL, December, 2016.
- Johnson, H. J.** (2016). Mobilizing STEM talent for STEM teaching: Recruiting STEM talent and designing pathways for STEM teaching. Poster presented at the annual Noyce Summit, Washington D. C. July, 2016.
- Hajek, A., Le, D., & **Johnson, H. J.,** (2016). Enhancing STEM education through partnerships to prepare students for NGSS. NSTA Science Forum, Denver, CO.

- Mawyer, K. K. N., & **Johnson, H. J.** (2016). Uncovering preservice science teachers' tacit reading strategies. Presentation at National Association for Research in Science Teaching (NARST). Baltimore, MD, April, 2016.
- Johnson, H. J.**, & Palmeri, A. (2016). Digging in: Leveraging expert ATLAS videos to reveal teacher learners' need to learn. In Daniels, S., Johnson, H. J., Hostetler, A. L., Hundley, M., Palmeri, A., & Pray, L. (2016). Video analysis for pedagogical sense-making among teacher learners across disciplines. A symposium presented at the Annual Conference of the American Educational Research Association (AERA), Washington DC, April, 2016.
- Ufnar, J., & **Johnson, H. J.** (2016). The Vanderbilt scientist-teacher collaborative apprenticeship: Enhancing science teaching and learning in middle schools. Presentation at the National Science Teachers' Association (NSTA) conference in Nashville, TN, April, 2016.
- Johnson, H. J.**, Ufnar, J., & Thompson, I. (2016). Recruiting STEM talent and designing pathways for STEM teaching. Presentation at the National Science Teachers' Association (NSTA) conference in Nashville, TN, April, 2016.
- Foote, C., Hogan, E., **Johnson, H. J.**, Palmeri, A., Murley, R., & Barron, L. (2016). Shaping pre-service visions of accomplished teaching: Innovative approaches utilizing ATLAS and edTPA. Presentation at the Annual Conference of the American Association of Colleges of Teacher Education (AACTE), Las Vegas, NV, February, 2016.
- Foote, C., Hogan, E., **Johnson, H. J.**, Palmeri, A., Murley, R., & Barron, L. (2016). Introducing ATLAS: Accomplished teaching, learning, and schools. Presentation at the Annual Conference of the American Association of Colleges of Teacher Education (AACTE), Las Vegas, NV, February, 2016.
- Hundley, M., **Johnson, H. J.**, Stengel, B., Hostetler, A. L., & Dunleavy, T. (2016). The challenge of language: Framing academic and disciplinary language practices for pre-service teachers. Presentation at the Annual Conference of the American Association of Colleges of Teacher Education (AACTE), Las Vegas, NV, February, 2016.
- Johnson, H. J.**, Henrie, A., & Palmeri, A. (2015). Course by course: Using ATLAS to prepare teacher candidates for edTPA success. Tennessee edTPA Conference, Cookeville, TN, November, 2015.
- Helgeson, S., **Johnson, H.**, Hamilton, K., & Middleton, R. (2015). Re-visioning the profession: Using ATLAS in teacher preparation. Presentation at Council of Academic Deans from Research Education Institutions (CADREI). Stowe, VT.
- Johnson, H.** (2015). Project-based teaching: A window into *real* practice. Invited presentation for Biological Sciences Curriculum Study (BSCS). Colorado Springs, CO.

- Johnson, H., & Smith, B.** (2015). Write your roadmap... Seriously! Presentation at STEM Think Tank and Conference. Harpeth Hall, Nashville, TN.
- Ko, M., **Johnson, H.**, Mawyer, K., & Luna, M. (2015). Working toward change: Supporting in-service teachers' enactment of NGSS. Presentation at National Association for Research in Science Teaching (NARST). Chicago, IL.
- Stengel, B., River, A., Koscielski, S., Basile, C. Stanton, R., **Johnson, H.**, Pendergrass, E., & Smith, B. (2015). Team/Design PDS: Critical common commitments for teacher development. Presentation at American Educational Research Association (AERA). Chicago, IL.
- Johnson, H.** (2015). Using video clubs to reflect on scientific practices during real-time enactment. Presentation at the National Science Teachers Association (NSTA), Chicago, IL, March, 2015.
- Johnson, H.**, Hostetler, A. L., Stengel, B., Brantlinger, A., Walkoe, J., Beatriz, Q., Taylor, A., Basile, C., & Singer, N. (2015). Learning in and through practice: Three practice-rich models. Presentation at the Annual Conference of the American Association of Colleges of Teacher Education (AACTE), Atlanta, GA., March, 2015.
- Hamilton, K., Foote, C., **Johnson, H.**, & Boerst, T. (2015). Seeing teaching anew: Revisioning the profession through the practice of accomplished teachers. Presentation at the Annual Conference of the American Association of Colleges of Education (AACTE), Atlanta, GA., March, 2015.
- Johnson, H.**, & Hostetler, A. L. (2014). The case of Henrietta Lacks: A problem-based approach that integrates science and social studies. Presentation at the Tennessee Science Teachers Association (TSTA), Murfreesboro, TN, November, 2014.
- Henrie, A., Palmeri, A., & **Johnson, H.** (2014). ATLAS: Helping educators improve their practice. Presentation at the Tennessee Science Teachers Association (TSTA), Murfreesboro, TN, November, 2014.
- Waddell, L. R., **Johnson, H. J.**, & Pendergrass, E. (2014). *Positive relational coaching: Developing and retaining effective and equitable urban middle school teachers.* Presentation at American Educational Research Association (AERA). Philadelphia, PA.
- Johnson, H. J.**, & Cotterman, M. E. (2014). *"Is that a model?": Preservice and inservice teachers' interpretations of scientific practices during video club.* Poster Presentation at National Association for Research in Science Teaching (NARST). Pittsburgh, PA.
- Kubitskey, B. W., Fishman, B., Park, G., **Johnson, H.**, Vath, R., & Konstantopoulos. (2014). *An experiment comparing face-to-face and online professional development effects on teacher learning, practice, and student learning.* Presentation at National Association for Research in Science Teaching (NARST). Pittsburgh, PA.

- Johnson, H. J.,** Stengel, B., & Hostetler, A. (2014). *Envisioning learning in practice schools (LPS): University-school partnerships to recenter teacher learning in practice.* Presentation at the Annual Conference of the American Association of Colleges of Teacher Education (AACTE). Indianapolis, IN.
- Park, G., **Johnson, H.,** Vath, R., Kubitskey, B., & Fishman, B. (2013). *Examining the roles of the facilitator in online and face-to-face PD contexts.* Poster Presentation at American Educational Research Association (AERA). San Francisco, CA.
- Fishman, B. J., Konstantopoulos, S., Kubitskey, B. W., Vath, R., Park, G., **Johnson, H.,** & Edelson, D. (2013). *Environments for teacher learning: An experimental comparison of face-to-face and online professional development to support new curriculum materials.* Presentation at American Educational Research Association (AERA). San Francisco, CA.
- Hawtin, K., & **Johnson, H.** (2013). *Does evidence-based inquiry improve logical reasoning?* Presentation at National Science Teachers Association (NSTA). San Antonio, TX.
- Cotterman, M. E., & **Johnson, H. J.** (2013). *Take "ME" to School: An award winning collaboration.* Presentation at National Science Teachers Association (NSTA). San Antonio, TX.
- Johnson, H. J.,** & Cotterman, M. E. (2013). *Developing preservice teachers' knowledge of teaching through video clubs.* Presentation at National Association for Research in Science Teaching (NARST). San Juan, Puerto Rico.
- Cotterman, M. E., & **Johnson, H. J.** (2013). *Video clubs as productive sites for preservice science teachers to interrogate instructional representations.* Presentation at National Association for Research in Science Teaching (NARST). San Juan, Puerto Rico.
- Singer-Gabella, M., Stengel, B., Hostetler, A., **Johnson, H.,** Hundley, M., & Palmeri, A. (2013). *Finding the sweet spot: Prepping candidates for the Teacher Performance Assessment.* Presentation at the Annual Conference of the American Association of Colleges of Teacher Education (AACTE). Orlando, FL.
- Stengel, B., Singer-Gabella, M., Peterson, R., **Johnson, H. J.,** Shahan, E., Hostetler, A. L., & Hundley, M. (2013). *Teacher education: Filter or pump.* Presentation at the Annual Conference of the American Association of Colleges of Teacher Education (AACTE). Orlando, FL.
- Johnson, H. J.,** Pendergrass, E., & Waddell, L. (2012). *The power of individualized coaching on urban teacher leadership: The positive relational coaching framework.* Presentation at Learning Forward. Boston, MA.

- Johnson, H. J.** (2012). *Project-based teaching: Supporting students in making project connections*. Presentation at National Association for Research in Science Teaching (NARST). Indianapolis, IN.
- Waddell, L., **Johnson, H. J.**, King, R., & Anderson, L. (2011). *Up close and personal: The power of coaching in a university/school collaborative*. Presentation at the NMSA/Association for Middle Level Education's 38th Annual Conference in Louisville, KY.
- Kubitskey, B.W., **Johnson, H.J.**, Vath, R.J., Fishman, B.J., & Konstantopoulos. (2011). *Examining study attrition: Implications for experimental studies of professional development*. Presentation at the American Educational Research Association (AERA) in New Orleans, LA.
- Johnson, H. J.** (2009). *Making connections: Strategies for sustaining the project context in a project-based curriculum*. Presentation at the National Science Teachers Association (NSTA) in New Orleans, LA.
- Johnson, H. J.** (2009). *Making connections: Exploring the influence of teachers' cognitive resources on the enactment of a project-based curriculum*. Presentation at the American Educational Research Association (AERA) in San Diego, CA.
- Johnson, H.J.**, Mawyer, K.K.N. & Edelson, D.C. (2008). Practice-Based Professional Development: Design Considerations for New and Experienced Users of Curriculum Materials. Paper presented at National Association for Research in Science Teaching (NARST). Baltimore, MD.

RESEARCH GRANTS

GRANTS SUBMITTED

Project Title: Preparing Preservice Teachers to Disrupt Epistemic Injustice

Role: Co-PI

PI: David Stroupe (Michigan State University)

Co-PIs: Scott McDonald (Penn State University); Matthew Kloser (Notre Dame); Kirsten Mawyer (University of Hawai'i)

Funding Agency: Spencer Foundation

Project Description: How and why preservice teachers learn to disrupt epistemic injustice using the practices and tools of the Ambitious Science Teaching framework across five sites of teacher preparation

Status: Under review

Amount: \$999,673.55

Project Title: Noyce Capacity Building Proposal: Exploring a Fisk STEM-to-Vanderbilt STEM Ed. Partnership with Metro Nashville Public Schools

Role: Faculty collaborator

PI: Qingxia Li (Fisk University)

Co-PIs: Marcia Millet (Fisk)

Partnerships: Fisk University, Metropolitan Nashville Public Schools, Vanderbilt's Secondary Education Program

Funding Agency: National Science Foundation's Robert Noyce Teacher Scholarship Program

Project Description: This proposal will leverage the existing consortium between Fisk, an historically black liberal arts college, and geographically proximate Vanderbilt to develop a teacher education program at the secondary level that focuses on the recruitment and training of STEM majors for licensure as secondary STEM educators.

Status: Under review

FUNDED GRANTS

Project Title: Preparing Teachers to Support Deeper Learning in Highly-Stressed Schools

Role: Co-investigator

Co-Investigators: Elizabeth Self, Marcy Singer-Gabella, Brian Kissel

Funding Agency: EdPrepLab

Project Description: Funding to support site visits to help us understand the following questions: *How can we support residents in learning to teach for deeper learning in deeply stressed environments? What is the role/nature of the work of building liaisons? How do other institutions provide this level of support (to residents, to schools, to instructors) in sustainable and affordable ways?*

Status: Funded

Amount: \$3750

Project Title: Computational Thinking and Learning Initiative

Role: Faculty Collaborator

PI: Akos Ledeczi

Co-Faculty (Vanderbilt) Collaborators: Gautam Biswas (Electrical Engineering & Computer Science), Corey Brady (Teaching and Learning), Noel Enyedy (Teaching and Learning), Ole Molvig (History), Lynn Ramey (French & Italian), Jonathan Gilligan (Earth & Environmental Sciences), Christopher Vanags (Peabody), Gayathri Narasimham (Vanderbilt Institute for Digital Learning)

Funding Agency: Vanderbilt Trans-Institutional Programs

Project Description: The Computational Thinking and Learning Initiative (CTLI) will develop the institutional capacities needed for Vanderbilt to foster innovative disciplinary computational thinking research and education across the university and in K-12.

Status: Seed Funded (2019)

Amount: \$100,000

Project Title: The Recruitment and Preparation of Next Generation STEM Teachers

Role: PI

Co-PIs: Teresa Dunleavy (Vanderbilt University, Department of Teaching and Learning), David Weintraub (Vanderbilt University, Physics Department); Marcelo Disconzi (Vanderbilt University, Math Department)

Partnerships: Fisk University, Metropolitan Nashville Public Schools

Funding Agency: National Science Foundation's Robert Noyce Teacher Scholarship Program

Project Description: This grant proposal builds off the structures developed in the first Noyce proposal and focuses on the recruitment and retention of STEM majors into urban secondary STEM teaching, with a particular emphasis on recruiting scholars of color into the profession.

Status: Funded (2019)

Amount: \$1,200,000

Project Title: MNPS-Peabody Teacher Residency Partnership

Co-PI: Andrew Hostetler

Role: co-PI

Funding Agency: TN DoE

Project Description: We collaborated with MNPS as a partner to get a planning grant to develop a teacher residency model for secondary education.

Status: Funded (2019)

Amount: \$15,914.30

Project Title: Building a Community of Science Teacher Educators to Prepare Novices for Ambitious Science Teaching

PI's: David Stroupe (Michigan State University) and Amelia Gotwals (Co-PI)

Role: co-investigator

Funding Agency: National Science Foundation

Project Description: This will be a multi-institutional effort with colleagues from Michigan State University (D. Stroupe & Amelia Gotwals), Vanderbilt (**H. Johnson**), Northern Arizona University (R. Gray), Penn State University (S. McDonald), the University of Washington (M. Windschitl & J. Thompson), the University of Hawaii (K. Mawyer), Notre Dame (M. Kloser), Boise State University (S. Hagenah), the University of Colorado (M. Braaten & E. Furtak), the University of California at Irvine (H. Kang), the University of Connecticut (J. Settlage), and Montclair State (D. Larkin). The purpose of the conference will be to:

- 1) Describe the state of science teacher preparation and how ambitious instruction can be a force for change in conversations about the teaching profession.
- 2) Set the research agenda for the field around science teacher preparation, and
- 3) propose a DRK-12 in the following year to take up some of the questions we want to see pursued.

Status: Funded (2018)

Amount: \$98,447

Project Title: Mobilizing STEM Talent for STEM Teaching

Role: PI

Co-PIs: David Weintraub (Vanderbilt University, Physics Department); Mark Ellingham (Vanderbilt University, Math Department)

Partnerships: Fisk University, Metropolitan Nashville Public Schools, Vanderbilt's Center for Science Outreach

Funding Agency: National Science Foundation's Robert Noyce Teacher Scholarship Program

Project Description: This grant developed pipelines and programs for the recruitment and retention of STEM majors into urban secondary STEM teaching, with a particular emphasis on recruiting scholars of color into the profession.

Status: Funded (2015-2018)

Amount: \$1,184,043

Project Title: Notice and Note: Exploring secondary education pre-service teachers' instruction through video analysis

Role: PI

Co-investigators: The Secondary Education team in the Department of Teaching and Learning at Vanderbilt's Peabody College (Teresa Dunleavy, Andrew Hostetler, Melanie Hundley)

Funding Agency: Peabody Small Research Grant

Project Description: This grant explored the effects of video annotation on pre-service teachers' analysis of their own and their peers' teaching.

Status: Funded (2016-2017)

Amount: \$8,520

Project Title: Building a Pipeline of Teaching Excellence

PI's: Linda Darling-Hammond, Lisa Stooksberry, Marcy Singer-Gabella

Role: co-investigator (Vanderbilt subcontract)

Funding Agency: Department of Education Investment in Innovation (I3) Grant to the National Board for Professional Teaching Standards

Project Description: This grant explored how the ATLAS platform, an online repository of National Board Candidate's case submissions (video and commentary) could support teacher learning. My role on the Vanderbilt subcontract focused on supporting the design and implementation of math and science ATLAS case engagement with elementary pre-service teachers following the protocols developed and criteria established by all co-investigators; submitting reports to NBPTS after each case engagement; participating in monthly meetings with the co-investigators from higher education; and following through on elementary pre-service teacher survey completion for data collection purposes. I also served on panels and presented our research with this project at multiple conferences for different audiences.

Status: Funded (2013-2017)

Amount: \$3,000,000

TEACHING

COURSES TAUGHT

Spring 2019 **co-Professor, Science Methods for Elementary Teachers (SCED 3240)**
This course is designed to support the development of the professional identify of future ambitious and equitable elementary school science teachers through the exploration of recent reform documents, research in science teaching and learning, and Ambitious Science Teaching practices.

2018 **co-Professor, Methods and Materials for ELL Education in STEM (SCED 6540)**
This course was uniquely designed to support the TLUS ELL sequence. I worked closely with Shannon Daniel to situate the ELL learning objectives required to meet the needs of the ELL endorsement within middle school STEM content.

- Spring 2018 **co-Professor, Genetics Pedagogy Seminar (SCED 2330)**
As part of the Noyce grant, pedagogy seminars were conceived to be jointly instructed by a STEM faculty member of a core content class and an education faculty member to uncover the process of teaching and learning of that course content. This seminar examined Dr. Kathy Friedman's BSCI 2210: Principles of Genetics course.
- Fall 2017 **co-Professor, Analytical Chemistry Pedagogy Seminar (SCED 2330)**
This pedagogy seminar examined Dr. Susan Verberne-Sutton's CHEM 2100: Introduction to Analytical Chemistry course.
- 2012-Present **Professor, Student Teaching Seminar in Science Education (SCED 4963/7973)**
This seminar is designed to support secondary science teacher candidates to learn from their student teaching and develop into intentional, responsive teachers who provide all students access to meaningful science as they practice and reflect on their use of ambitious science teaching methods.
- 2011-Present **Professor, Advanced Teaching of Science in Secondary Schools (SCED 3370/6370)**
This methods course in secondary science education explores the question, *How can we teach science to make it meaningful for learners?* Students examine the interrelationships between theory and practice in teaching science.
- 2011-Present **Professor, Practicum in Secondary Education III (SCED 3371/6371)**
This field-based course is a co-requisite of the methods course (SCED 2370/3370). Students plan lessons, devise instructional strategies, and assess student learning in two secondary science classrooms.
- Summer 2017 **Professor, Science Concepts for Elementary Teachers (SCED 6200)**
This course is designed to support the development of the professional identity of future ambitious and equitable elementary school science teachers through the exploration of recent reform documents, research in science teaching and learning, and Ambitious Science Teaching practices.
- Spring 2017 **Professor, Video Analysis (EDUC 7500)**
This course aims to provide students with conceptual and methodological tools for examining educational research that makes use of video and designing and conducting video-based research.
- Fall 2016 **co-Professor, Earth Science Pedagogy Seminar (SCED 3890)**
This pedagogy seminar examined Lily Claiborne's EES 1510: The Dynamic Earth course.

- Spring 2016 **co-Professor, Astronomy Pedagogy Seminar (SCED 3890)**
This pedagogy seminar examined Erika Grundstrom's ASTR 2110: The Solar System course.
- 2015-2016 **Professor, Noyce Seminar I: Understanding Differences in Language, Learning and Development**
As part of the Noyce grant, this seminar was developed to enhance students' abilities to *see and interpret* the features of the urban context, the school environment, and the lives of young people so that they are able to make instructional decisions that are in the best education interests of their students. The monthly seminar sessions combine with fieldwork in urban schools that I also coach on a monthly basis.
- Summer 2014-present **Professor, ISL: Teachers and Teaching in Independent Schools**
I teach the Teachers and Teaching in Independent Schools module for the Teachers, Leaders and Learning in Independent Schools theme of the Independent School Leadership Masters program. The goal of this module is to help students develop conceptions of ambitious teaching and learning.
- Summer 2014 **Professor, Instructional Planning in Urban Schools (EDUC 3900)**
This is the introductory course to the Teaching and Learning in Urban Schools (TLUS) program. The course was designed around the themes of teacher leadership, student advocacy, community building, and reflection with an emphasis on teaching effectiveness through culturally-responsive instructional planning.
- 2014 **Professor, Analysis of Teaching (EDUC 3170)**
As a core course in the Learning and Instruction masters program, this course asks students to learn, develop, modify, and use analytic procedures and methodologies to systematically explore teaching.
- 2014 **Professor, Elementary Math/Science Practicum (EDUC 2250)**
Through coursework and field experiences, I worked with students to develop their pedagogies in math and science education at the elementary level.
- 2013-2014 **Professor, Science Literacies (SCED 2690/3900)**
Students delve into practices of inquiry, representation and justification in scientific domains, considering the relationships to the development of student understanding. Students explore questions such as: what does it mean to *know* in scientific domains? What does it mean to "leverage student thinking" in science? In what ways can students' informal experiences with science connect with more schooled learning experiences?

- 2012-2013
Spring 2018 **Professor, Practicum in Secondary Education II (EDUC 2350)**
This practicum focuses on assessment in secondary schools. Fieldwork in two schools sites allows students to bring attention to what multiple assessments can tell about one student, and what one assessment can tell about many students.
- 2011-2014 **Professor, TLUS Inquiry II (SCED 3900)**
This course provides instruction in science content, research-based theory, and best practices in science teaching with the goal of improving middle school student science literacy and learning.
- 2011-Spring 2016 **TLUS Coach**
Coaching is a co-requisite of the TLUS Inquiry II course. I provided in-class coaching support of both science content and practices through careful analysis of unit and lesson design, weekly classroom observations, and pre- and post-teaching conferences.

ADVISING AND MENTORING

- 2017-2019 **Faculty Mentor for the Secondary Education Student Advisory Council**
- 2018-2019 **Dissertation Committee, Anne Sinclair**
Doctoral Candidate, Vanderbilt University, Department of Special Education in Peabody College. This committee was chaired by Associate Professor Chris Lemons.
- 2017 **Faculty Connection for a Humphrey Fellow**
I serve as a light-touch advisor to help a Humphrey Fellow from Chad learn more about the academic work at Peabody College and think more deeply about the potential impact of his learning experiences while at Vanderbilt for the academic year.
- 2011-Present **Undergraduate and Graduate Academic Advisor**
I currently have 12 undergraduate students (five freshman, four sophomores, one junior, two seniors), nine graduate students, and two job-embedded candidates on my advising load. They are all preservice secondary science licensure or ed studies students.
- 2015-2016 **Major Area Paper (MAP) and Dissertation Committee, Michelle Forsythe**
Doctoral Candidate, Vanderbilt University, Department of Teaching and Learning in Peabody College. This committee was chaired by Professor Rich Lehrer.

SERVICE

UNIVERSITY, COLLEGE, DEPARTMENT

- 2020 Search Committee Member for Full Professor of Science Education
- 2019-2020 Vanderbilt University Digital Projects and Services Committee Member.
- 2019 Led committee review and promotion for an Associate Professor of the Practice of Education
- 2019 Committee member for the review and promotion of a senior lecturer in the department
- 2019 Search Committee Member for Assistant Professor of Instrumental Music Education
- 2018-Present Center for Science Outreach (CSO) Strategic Planning Committee Member
- 2018-Present Co-Chair of the School of Science and Math at Vanderbilt (SSMV) Advisory Board with Schunn Turner
- 2018-2019 Fisk-Vanderbilt Partnerships Committee Member
- 2017-2019 Small Grant Review Committee member for Peabody College
- 2017-2018 Vanderbilt University's Department of Teaching and Learning Elementary Education Steering Committee Member
- 2016-2017 Vanderbilt University's Effectiveness of Educational Technologies Committee Member
- 2016-Present Vanderbilt Graduation Marshall
- 2016, 2018 Instructor/Presenter for Excellence in Educating the Gifted: Materials that Promote Gifted Student Achievement
- 2012-2013 Co-Mentor for an NSF-funded Bioengineering Research Experiences for Undergraduates (REU) Site grant
- 2011-2014 Faculty Advisor for "Take ME (Mechanical Engineering) to School"
- 2011-2013 Abu Dhabi Program Development Team Member

PROFESSIONAL FIELD

- 2019-2020 EdPrepLab Steering Committee Member**
A committee of teacher educators from institutions around the country (Learning Policy Institute, Montclair State University, University of California – Berkeley, Vanderbilt, and Bank Street College of Education) that work toward identifying

educator preparation practices around Deeper Learning principles; and prioritizing practice, policy and research work that best support our teacher candidates.

2017-2019 The ART of Video Grant Consultant

I offer my expertise in video analysis and ambitious teaching and learning to Alan Marnett's recently funded NSF SBIR grant, *The ART of Video: A Secure Educational Interactive Software Platform for Improving High School Student Achievement*. I consult on development feedback, study setup, and data analysis over the course of the project.

2013-Present Journal Reviewer

Review articles for *Journal of Science Teacher Education*, *The Elementary School Journal*, *Science Education*, *Teaching and Teacher Education*, *The New Educator*, and *Journal of Teacher Education*.

2006-Present NARST and AERA Conference Proposal Reviewer

Review proposals for the National Association for Research in Science Teaching annual conference and the American Educational Research Association annual conference.

2017, 2018 National Geographic Grant Proposal Reviewer for New Education and Early Career Grants

2013-2014 edTPA Scorer for preservice middle level science students

2013 NSF Reviewer for EHR Core Research Proposals

COMMUNITY

2017-2019 MNPS Principal Residence Pipeline

Presenter on ambitious teaching for assistant principals who have been identified as potential future principals in MNPS.

2017-2019 TLUS-Madison Middle School Building Lead

Building leads, new positions in the TLUS program, have been created to strengthen the partnerships between the TLUS program and MNPS. One day a week, I work at Madison Middle School. I observe teachers, meet with administrators, collaborate with TLUS coaches, and attend team level or content area planning meetings. This presence helps ensure that all parties involved in TLUS are communicating consistently and regularly, and working toward the same goals as the district and school.

Fall 2016 Professional Development Workshop

Goodlettsville Middle School, *What do we mean by rigor?* for all faculty during a professional development day.

Spring 2013 Judge for Isaac Litton Middle School's Science Fair

2011-2016 Instructional Coach

My role in the TLUS program included both instructor and coach. The coaching responsibilities included weekly visits to participating Metro Nashville schools where I observed and supported classroom instruction and reflected on planning and instruction with the classroom teachers. Being involved in the school community on a weekly basis, I regularly consulted and collaborated with the administration to make sure my coaching support aligned with the needs and vision for the school. I also discussed planning and management issues with other TLUS and non-TLUS teachers in the building during my visits.

STATE

2017-2018 TSTA TN STEM Leadership Cadre Advisory Team Member

Member of the Advisory Team to support the Leadership Cadre in developing and providing professional development for science teachers on the new science standards in the state of TN.

2016-2019 Governor's School Leadership Academy

Instructed a module on ambitious teaching for over 20 assistant principals from across Tennessee who were participating in the one-year leadership development experience aimed at increasing school leadership capacity and supporting individual growth toward becoming highly effective building principals in the state.

2013-2015 Building a Capacity of Tennessee Science Education

As a member of this subcommittee of the Tennessee Science Teacher Association, we are working toward promoting and advocating readiness for research-based best practices in science teaching and learning to support student success in this state.

2012 Tennessee Higher Education Commission

Provided feedback on the e-learning TVAAS course for the *TVAAS e-Learning Instructor's Guide for University Faculty* in summer 2012.

NATIONAL

2019 Presidential Awards for Excellence in Mathematics and Science Teaching

National selection committee review panelist

INTERNATIONAL

2019-Present To Move Mountains Advisory Team Member

Supporting the curricular and professional development for a K-8 school in the

Nuba Mountains of Sudan

2016-Present Instructor/Presenter for the World Leading Schools Association Gathering (Nashville, TN and Beijing, China)

Led multiple sessions on ambitious teaching for visiting teachers and administrators from China. Helped frame their school visits by introducing an ambitious teaching observation tool that they could use to analyze their site visits. Traveled to Beijing to introduce a new cohort to ambitious teaching each fall since 2016.