

Valarie L. Akerson (formerly Dickinson)
Department of Curriculum and Instruction
Indiana University
201 N. Rose Avenue
Bloomington, IN 47405-1005
812-856-8140
vakerson@indiana.edu

Education

- | | | |
|--------|------|---|
| Ph. D. | 1997 | Oregon State University, Corvallis, OR
Science Education
Minor: Integrated Science
Dissertation: The Influence of Primary Children's Ideas in Science on Teaching Practice |
| Ed. M. | 1993 | Washington State University, Richland, WA
Elementary Education |
| B. A. | 1981 | University of California, Berkeley, CA
Psychology |

Certification

State of Washington: Continuing Elementary Teaching Certificate

Endorsements: Elementary Education, K-8
Psychology, 4-12

Honors and Awards

- | | |
|------|--|
| 2021 | Recipient of the NARST 2021 Distinguished Contributions Through Research Award. |
| 2020 | Nominated for the Indiana School of Education Research Award |
| 2010 | Indiana University Trustees Teaching Award |
| 2008 | Indiana University Trustees Teaching Award |
| 2007 | Scholarship of Teaching and Learning (SOTL) Writing Retreat Publication Award (with Cary A. Buzzelli) for: Akerson, V. L., & Buzzelli, C. A. (2007). Relationships of preservice early childhood teachers' cultural values, ethical and cognitive developmental levels, and views of nature of science. <i>Journal of Elementary Science Education</i> , 19, 15-24. and Akerson, V. L., Buzzelli, C. A., & Donnelly, L. A. (2010). |

Early Childhood Teachers' Views of Nature of Science: The Influence of Intellectual Levels, Cultural Values, and Explicit Reflective Teaching. *Journal of Research in Science Teaching*.

- 2007 Indiana University Trustees Teaching Award
- 2005 Finalist for the National Association of Research in Science Teaching Outstanding Paper Award: Akerson, V. L., & Hanuscin, D. L. (2005, April). *Teaching nature of science through inquiry: Influence of a three year professional development program*. Paper presented at the annual meeting of National Association for Research in Science Teaching, Dallas, TX.
- 2004 Indiana University Trustees Teaching Award
- 2004 Nominated for the Student Choice Awards Teaching Award, Indiana University
- 2004 Nominated for the Graduate Women Educators Network (GWEN) Outstanding Mentor Award.
- 2003 Indiana University Trustees Teaching Award
- 2002 Nominated for the Student Choice Awards Teaching Award, Indiana University
- 2002 Nominated for the Indiana University Graduate and Professional Student Organization 2002 Faculty Mentor Award
- 2000 Nominated for the National Association for Research in Science Teaching Early Career Research Award
- 1999 Received Alhadeff Teacher of Teachers Faculty Award for "Fostering Reflective Practitioners through Role Model Experiences" project. This competitive award is given annually from a private donor to teacher preparation faculty.
- 1993 Selected and funded through the National Science Foundation as one of sixty K-12 teachers to attend the American Association for the Advancement of Science (AAAS) Forum for School Science in Arlington, Virginia, November.

Professional Work Experience

- 2010- **Professor, Science Education**
Indiana University, Bloomington, IN

- 2004- **Associate Professor, Science Education,**
Indiana University, Bloomington, IN
- 2001-2004 **Assistant Professor, Science Education**
Indiana University, Bloomington IN
With Graduate Faculty Status, 2002
Responsibilities include conducting scholarly research, teaching undergraduate and graduate courses in science education and other areas of curriculum and instruction, advising students, and supervising graduate students' research efforts.
Courses taught:
Graduate:
Science Education Doctoral Seminar
Advanced Study in the Teaching of Elementary Science
Research Issues in Science Education
Undergraduate:
Elementary Science Methods
Early Childhood Science Methods
- 1997-2001 **Assistant Professor, Science Education**
With Graduate Faculty Status, 1998
Washington State University, Richland, WA
Responsibilities included conducting scholarly research, teaching undergraduate and graduate courses in science education and other areas of curriculum and instruction, advising students, and supervising graduate students' research efforts.
Courses Taught
Graduate:
Elementary School Science
Teaching Elementary Science
Children's Literature and Hands-On Science
Environmental Renewal Teacher Institute
Topics in Education
Classroom Focused Research
Topics in Environmental Engineering
Teacher as Researcher

Undergraduate:
Teaching Elementary Science Methods
Special Problems in Education
Teaching Elementary Mathematics
Elementary Language Arts Methods
- 1996-1997 **Managing Editor, *School Science and Mathematics***
Oregon State University, Corvallis, OR

Fall 1996-Summer 1997: As part of graduate assistantship, managed incoming manuscripts through the review and publication process. Communicated with authors, editors, and associate editors. Developed databases and methods for assuring quick responses to authors. Provided input to the development and maintenance of the journal web page. Supervised technical editor and layout of monthly journal issues.
Summer 1997: Served on search committee for new technical editor. Trained replacement managing editor.

1997

Instructor

Oregon State University, Corvallis, OR

Summer: Taught graduate level elementary science methods courses. Developed syllabus, course structure.

1997

Teaching Assistant

Oregon State University, Corvallis, OR

Winter: Co-taught science methods course for elementary and middle school preservice teachers. Co-taught microteaching course for preservice middle school teachers.

Courses Taught All Graduate level:

Elementary Science Methods

Microteaching

Supervision of six secondary and middle school science preservice teachers

Chaired two middle school science preservice teacher master committees

1996-1997

Supervisor of Intern Teachers

Oregon State University, Corvallis, OR

Fall: Supervised two high school and three middle school student teachers. Met with supervising teacher and students, provided direction and input to help interns improve their teaching of science.

Winter: Supervised two middle school science and language arts interns. Met with supervising teachers and students, provided direction and input to help interns improve their teaching of science, and to integrate that science with language arts.

Spring: Supervised two middle school science and language arts interns. Met with supervising teachers and students. Provided direction and input to help interns improve their teaching of science and language arts. Conducted three-way conferences with mentor teachers and interns.

1996

Teaching Assistant

Washington State University, Richland, WA

Summer: Taught Elementary Math Methods course for preservice elementary teachers. Co-taught technology in the classroom course for preservice elementary teachers.

1995-1996

Project Assistant: NSF Grant Integrating Science Concepts

Oregon State University, Corvallis, OR/4J School District, Eugene, OR

Helped organize elementary teacher retreats, workshops and inservices. Wrote grant reports. Observed elementary teachers. Created Project Internet web page. Reviewed elementary science curriculum. Developed response journal coding system.

1994-1995

Teaching Assistant

Washington State University, Pullman, WA & Richland, WA

Fall 1994 Taught graduate level mathematics methods course and undergraduate language arts methods course for preservice elementary teachers.

Spring 1995 Taught graduate level science methods course and undergraduate language arts methods course for preservice elementary teachers.

1990-1994

Elementary Teacher

Finley Elementary School, Kennewick, WA

Taught first, second and third grades. Created and ran a science club for second to fifth graders. Introduced and managed a yearly school-wide science festival. Chair of the elementary science committee in charge of defining new science curriculum. Member of district curriculum committee. Encouraged school board to permit four elementary students to attend and compete at the 1993 and 1994 Washington State Science and Engineering Fairs in Bremerton.

1989-1990

Substitute Teacher

Antioch, California and Finley, Washington

California: September to December, short-term substitute teacher in grades K-12. Fulfilled teaching duties of regular classroom teachers when they were absent.

Washington: Short-term substitute teacher January-February, grades K-12. Long-term second-grade substitute teacher March-June. During long-term substitute position fulfilled all duties of regular classroom teacher,

including planning and committee work.

1981-1989 Worked in retail in private sector.

Publications

Research

* *indicates refereed*

+ *indicates doctoral or master student co-authors*

Published—Journals

*+Cesljarev, C., & Akerson, V. L. (Accepted). Integrated assessments of K12 students' science and literacy knowledge. *International Journal of Research in Education and Science*.

+McClain, J., Cesljarev, C., Zhong, Q., Rahman, S., Liu, C., Phillips, A., Ariyaratne, T., & Akerson, V. L. (Accepted). Developing nature of science ideas and orientations at the graduate level: Better late than never. *International Journal on Studies in Education*.

*+Avsar Erumit, B., & Akerson, V. L. (2021). Using Children's Literature in the Middle School Science Class to Teach Nature of Science: Preservice Teachers' Development of Sources, *Science & Education*, 16, 251-278.

*+Carter, I., & Akerson, V.L. (under review). How Elementary Preservice Teachers Discuss Science Notebooks When Focusing on Two Perspectives, *Journal of Science Teacher Education*.

*+Amador, J. M. Park Rogers, M., Hudson, R., Phillips, A., Carter, I., Galindo, E., & Akerson, V. L. (under review). Novice teachers' planning and implementation of mathematics and science instruction to build on students' thinking. *Teaching and Teacher Education*.

*+ Avsar Erumit, B., Akerson, V. L., & Buck, G. A. (2021). Culture or language?: Examining perceptions and life experiences of internationally teaching assistant from science and math education departments and their students' views about learning from internationals. *Cultural Studies in Science Education* 16, 251-278.

*+Donohue, K., Buck, G.A., & Akerson, V. (2020). Where's the science? Exploring a new science teacher educator's theoretical and practical understandings of scientific inquiry. *International Journal of Research in Education and Science (IJRES)*, 6(1), 1-13.

- *+Bilican, K., Akerson, V. L., & Nargund-Joshi, V. (2020) Learning by Teaching: Co-teaching to Enhance Nature of Science Pedagogy, Successes and Challenges. *International Journal of Mathematics and Science Education*, online May 30.
- *Park Rogers, M, Carter, I, Amador, J., Galindo, E, & Akerson, V. L. (2020). Adapting a model of preservice teacher professional development for use in other contexts: Lessons learned and recommendations. *Innovations in Science Teacher Education*, 5, 1-16.
- *+Min, M., Akerson, V. L., & Aydeniz, F. (2020). Exploring Preservice Teachers' Beliefs about Effective Science Teaching through Their Collaborative Oral Reflections *Journal of Science Teacher Education*, 31, 245-263.
- +*Akerson, V.L., Elcan Kaynak, N., & Avsar Erumit, B. (2019). Development of third grader's identities as persons who understand nature of science through a gravity unit. *International Journal of Research in Education and Science (IJRES)*, 5(2), 450-456.
- * +Akerson, V. L., Elcan, N., Avsar Erumit, B. (2019) Preparing preservice early childhood teachers to teach nature of science: Writing children's books. *Innovations in Science Teacher Education*, 4, (1) ISSN 2472-2553
- *+Avsar Erumit, B., Fouad, K.E. & Akerson, V.L. (2019). How do learner-directed scientific investigations influence students' questioning and their nature of science conceptions? *International Journal of Education in Mathematics, Science and Technology (IJEMST)*, 7(1), 20-31. DOI:10.18404/ijemst.509246
- +* Akerson, V.L., Avsar Erumit, B., & Elcan, N. (2019). Learning and Teaching Nature of Science Through Children's Literature: An Early Childhood Preservice Teacher Study. *International Journal of Science Education*.
- +Akerson, V. L. , Carter, I., Pongsanon, K., & Nargund-Joshi, V. (2019). Teaching and Learning Nature of Science in Elementary Classrooms: Research Based Strategies for Practical Implementation. *Science & Education*, 28, 391-411.
- +* Akerson, V. L., Carter, I., Park Rogers, M., & Pongsanon, K. (2018). A video-based measure of preservice teachers' abilities to predict elementary students' scientific reasoning. *International Journal of Education in Mathematics, Science, and Technology*. (JEMST), 6(1), 79-92. DOI:10.18404/ijemst.328335
- +*Akerson, V. L., Burgess, A., Gerber, A., Guo, M., Khan, T. A., & Newman, S. (2018). Disentangling the meaning of STEM: Implications for science education and science teacher education. *Journal of Science Teacher Education*, 19, 1-8.

- +* Akerson, V. L., Pongsanon, K., Park Rogers, M., Weiland, I.S., & Galindo, E. (2017). Exploring the use of lesson study to develop elementary preservice teachers' pedagogical content knowledge for teaching nature of science. *International Journal of Science and Mathematics Education, 15*, 293-312.
- +* Carter, I., Park Rogers, M., Amador, J., Akerson, V. L., & Pongsanon, K. (2016). Utilizing an iterative research-based lesson study approach to support preservice teachers' professional noticing. *Electronic Journal of Science Education, 20*, 1-28.
- Akerson, V. L. (2015). A review of the *Handbook of Research on Science Education, Volume II: New topics and new information. Science & Education, 24*, 1023-1026.
- +* Fouad, K. E., Masters, H., & Akerson, V. L. (2015). Using history of science to teach nature of science to elementary students. *Science & Education, 24*, 1103-1140.
- +* Gatzke, J., Buck, G. A., & Akerson, V. L. (2015). Maybe I just want to play outside: Building bridges to find one's science teacher and environmental educator identity. *International Journal of Environmental and Science Education, 10*, (3), 319-335.
- *Ceylan, E., & Akerson, V. L., (2014). Comparing the Low- and High-Performing Schools Based on the TIMSS in the United States. *Egitim vd Bilim. 39*, (173), 299-309.
- +*Akerson, V. L., Weiland, I., Park Rogers, M., Pongsanon, K., Bilican, K. (2014) Exploring elementary methods course contexts for improving nature of science conceptions and understandings of NOS teaching strategies. *Eurasia Journal of Mathematics, Science, and Technology Education, 10* (6), 647-665.
- +*Buck, G., Akerson, V. L. , Quigley, C., & Weiland, I. (2014). Exploring the potential of using explicit reflective instruction through contextualized and decontextualized approaches to teach first-grade African-American girls the practices of science. *Electronic Journal of Science Education, 18* (6)
- + *Akerson, V. L., Nargund-Joshi, V., Weiland, I. S., Pongsanon, K. , & Avsar, B. (2014). What third grade students of differing ability levels learn about nature of science after a year of instruction. *International Journal of Science Education, 36*, 244-276.
- +Akerson, V.L., Pongsanon, K., Nargund, V., & Weiland, I. (2014). Developing a professional identity as a teacher of nature of science. *International Journal of Science Education.*

- Akerson, V. L. (2014). (Invited book review). Notes to a new teacher: A not-for-dummies guide for beginning teachers. *Science Books and Films*, 50, (1) 17.
- Akerson, V. L. (2014). (Invited book review). Models and approaches to STEM Professional development. *Science Books and Films*, 50. (7) 178.
- *Weiland, I, Blieden, K., & Akerson, V. L. (2014). Integrating the Nature of Science into Interdependent Relationships and Ecosystems. *Science and Children*, 52 (1), 60-64.
- +*Deniz, H. & Akerson, V. L. (2013).Examining the impact of a professional development program on elementary teachers' views of nature of science and nature of scientific inquiry, and science teaching efficacy beliefs. *Electronic Journal of Science Education*, 17 (3), 1-19.
- +* Weiland, I., & Akerson, V. L. (2013). Toward understanding the nature of a partnership between an elementary classroom teacher and an informal science educator. *Journal of Science Teacher Education*, 24 1333-1355.
- +* Oliveira, A., Akerson, V. L, Colak, H., Pongsanon, K., & Genel, A. (2012). The implicit communication of nature of science and epistemology during inquiry discussion. *Science Education, on line version*.
- Akerson, V. L. (2012). (invited book review). Energy, environment, natural resources. *Science Books and Films*, 48, (5), 12B.
- +* Oliveira, A., Akerson, V. L., Oldfield, M. (2012). Environmental argumentation as sociocultural activity. *Journal of Research in Science Teaching*, 49, 869-897.
- +*Akerson, V. L., Buzzelli, C. A., & Eastwood, J. A. (2012). Bridging the gap between preservice early childhood teachers' cultural values and their perceptions of values held by scientists, and the relationships of these values to conceptions of nature of science. *Journal of Science Teacher Education*, 23, 133-157.
- +*Akerson, V.L., Donnelly, L. A., Riggs, M. L., & Eastwood, J. (2012) Supporting preservice elementary teachers' nature of science instruction through a community of practice. *International Journal of Science Education*, 34, 1371-1392.
- +* Nargund, V., Park Rogers, M., & Akerson, V. L. (2011). What supports are needed for change? Exploring Indian secondary teachers' orientations and practice for teaching science with respect to reform. *Journal of Research in Science Teaching*, 48, 624-647.
- +* Quigley, C., Buck, G., & Akerson, V. L. (2011). Take the 30 day NOS Challenge: Thirty days of explicit-reflective Nature of Science instruction for elementary

students. *Science and Children*, 49 (2), 57-61.

- +* Akerson, V. L., Buck, G. A., Donnelly, L. A., Nargund, V., & Weiland, I.S. (2011). The importance of teaching and learning nature of science in the early childhood years. *The Journal of Science Education and Technology*, 20, 537-549.
- +*Akerson, V. L., Weiland, I. S., Pongsanon, K., & Nargund, V. (2011). Evidence-based Strategies for Teaching Nature of Science to Young Children *Journal of Kirsehir Education*, 11(4), 61-78.
- +*Hanuscin, D. L., Lee, M., & Akerson, V. L. (2010). Elementary teachers' pedagogical content knowledge for teaching the nature of science. *Science Education*, 95, 145-167.
- +*Cullen, T. A., Akerson, V. L., & Hanson, D. L. (2010). Using Action Research to Engage K-6 Teachers in Nature of Science Inquiry as Professional Development *Journal of Science Teacher Education*, 21, 971-992.
- +*Akerson, V. L., Cullen, T. A., & Hanson, D. L. (2010). Experienced teachers' strategies for assessing nature of science conceptions in elementary classrooms. *Journal of Science Teacher Education*, 21, 723-745.
- +*Quigley, C., Pongsanon, K., & Akerson, V. L. (2010). "If we teach them, they can learn" Young students' views of nature of science aspects during an informal science education program. *Journal of Science Teacher Education*, 21, 887-907.
- +*Akerson, V. L., Buzzelli, C. A., & Eastwood, J. (2010) The relationship between preservice early childhood teachers' cultural values and their perceptions of scientists' cultural values. *Journal of Science Teacher Education*, 21, 205-214.
- +*Akerson, V. L., Buzzelli, C. A., & Donnelly, L. A. (2010). On the nature of teaching nature of science: Preservice early childhood teachers' instruction in preschool and elementary settings. *Journal of Research in Science Teaching*, 47, 213-233.
- +*Akerson, V. L., & Donnelly, L. A. (2010). Teaching Nature of Science to K-2 Students: What understandings can they attain? *International Journal of Science Education*, 32, 97-124.
- +*Akerson, V. L., Cullen, T.A., & Hanson, D. L. (2009). Fostering a community of practice through a professional development program to improve elementary teachers' views of nature of science and teaching practice. *Journal of Research in Science Teaching*, 46, 1090-1113.
- *Abd-El-Khalick, F., & Akerson, V. L. (2009). The influence of training in metacognitive strategies on preservice elementary teachers' conceptions of nature of science. *International Journal of Science Education*, 31, 2161-2184.

- +*Akerson, V. L., Townsend, J. S., Donnelly, L. A., Tira, P., & White, O. (2009) Scientific modeling for inquiring teachers network (SMIT'N): The influence on elementary teachers' views of nature of science, inquiry, and modeling. *Journal of Science Teacher Education*, 20, 21-40.
- +*Oliveira, A. W., Colak, H., & Akerson, V. L. (2009). "Who polluted the Potomac?" The translation and implementation of an environmental story in Brazilian and Turkish elementary classrooms. *Cultural Studies of Science Education*, 4, 89-132.
- +*Oliveira, A. W., Colak, H., & Akerson, V. L. (2009). Curriculum translation and environmental education: Considering issues of discursive intentionality, interpretation, and validity. *Cultural Studies of Science Education*, 4, 141-148.
- +*Akerson, V. L., Buzzelli, C. A., & Donnelly, L. A. (2008). Early Childhood Teachers' Views of Nature of Science: The Influence of Intellectual Levels, Cultural Values, and Explicit Reflective Teaching. *Journal of Research in Science Teaching*, 45, 748-770.
- Akerson, V. L. (2009). (invited book review). Teaching nature of science through process skills: Activities for Grades 3-8 by Randy Bell. *International Journal of Science Education*, 31, 593-601.
- +*Akerson, V. L., & Donnelly, L. A. (2008). Relationships among learner characteristics and preservice elementary teachers' views of nature of science. *Journal of Elementary Science Education*, 20, 45-58.
- Abd-El-Khalick., F. S., & Akerson, V. L. (2007). On the role and use of "theory" in science education research: A response to Johnson, Southerland, and Sowell. *Science Education*, 91 187-194.
- +*Akerson, V. L., & Hanuscin, D. L. (2007). Teaching nature of science through inquiry: The results of a three-year professional development program. *Journal of Research in Science Teaching*, 44, 653-680.
- *Akerson, V. L., & Buzzelli, C. A. (2007). Relationships of preservice early childhood teachers' cultural values, ethical and cognitive developmental levels, and views of nature of science. *Journal of Elementary Science Education*, 19, 15-24.
- +*Akerson, V. L., Hanson, D. L., & Cullen, T. A. (2007). The influence of guided inquiry and explicit instruction on K-6 teachers' views of nature of science. *Journal of Science Teacher Education*, 18, 751-772.
- +Hanson, D. L., & Akerson, V. L. (2006). Will an improved understanding of nature of science (NOS) improve elementary teachers' self-efficacy for science teaching?: A call for research. *Alberta Journal of Science Education*, 38 (1), 6-11.

- +*Akerson, V. L., & Volrich, M. (2006). Teaching nature of science explicitly in a first grade internship setting. *Journal of Research in Science Teaching*, 43, 377-394.
- *Akerson, V.L., Morrison, J. A., & Roth McDuffie, A. (2006). One course is not enough: Preservice elementary teachers' retention of improved views of nature of science. *Journal of Research in Science Teaching*, 43, 194-213.
- +*Hanson, D. L., & Akerson, V. L. (in press). Me—A science teacher? Confronting elementary science self-efficacy views through effective modeling of science lessons. *Journal of Science Teacher Education*.
- +*Hanuscin, D. L., Akerson, V. L., & Phillipson, T. (2006). Integrating Nature of Science instruction into a physical science content course for preservice elementary teachers: NOS views of teaching assistants. *Science Education*, 90, 912-935.
- * Akerson, V. L., & Young, T. A. (2005). Science the write way: Using non-fiction writing activities to help primary students learn science. *Science and Children*, 43 (3), 38-41.
- *Akerson, V. L. (2005). How do elementary teachers compensate for incomplete science content knowledge? *Research in Science Education*, 35, (2-3) 245-268.
- *Morrison, J.A., Roth-McDuffie, A., & Akerson, V. L. (2005). Preservice teachers' development and implementation of science performance assessment tasks. *International Journal of Science and Mathematics Education*, 3, 379-406.
- *Akerson, V. L., & Abd-El-Khalick, F. S. (2005). "How should I know what scientists do—I am just a kid": Fourth grade students' conceptions of Nature of Science. *Journal of Elementary Science Education*, 17, 1-11.
- +* Akarsu, B., & Akerson, V. L. (2004). What are classroom management issues for undergraduate science teaching assistants? *The Journal of the International Association of Medical Science Educators*, 14, 18-22.
- +*Nixon, D. T., & Akerson, V. L. (2004). Building bridges: Using science as a tool to teach reading and writing. *Educational Action Research*, 12, 197-217.
- * Abd-El-Khalick, F. S., & Akerson, V. L. (2004). Learning about Nature of Science as conceptual change: Factors that mediate the development of preservice elementary teachers' views of nature of science. *Science Education*, 88, 785-810.
- Akerson, V. L. (2004). Designing a science methods course for early childhood preservice teachers. *Journal of Elementary Science Education*, 16 (2), 19-32.

- *Akerson, V. L., & Young, T. A. (2004). Nonfiction know-how: Surefire strategies for effectively using nonfiction trade books in your science classroom. *Science and Children*, 41, (6), 48-51.
- *Akerson, V. L., & Abd-El-Khalick, F. S. (2003). Teaching elements of nature of science: A year long case study of a fourth-grade teacher. *Journal of Research in Science Teaching*, 40, 1025-1049.
- *Akerson, V. L., & Dickinson, L. E. (2003). Using GIS technology to support K-8 scientific inquiry teaching and learning. *Science Educator*, 12, 41-47.
- * Roth McDuffie, A., Akerson, V. L., & Morrison, J. A. (2003). Designing and implementing meaningful field-based experiences for mathematics methods courses: A theoretical framework and a program description. *The Mathematics Educator*, 13, 22-32.
- * Akerson, V. L., Medina, V. F., & Wang, N. (2002). A collaborative effort to improve university engineering instruction. *School Science and Mathematics*, 102, 405-419.
- +* Akins, A. & Akerson, V. L. (2002). Connecting science, social studies, and language arts: An interdisciplinary approach. *Educational Action Research*, 10, 479-497.
- +* Liu, Z., & Akerson, V. L. (2002, May 31). Science and language links: A fourth grade intern's attempt to increase language skills through science. *Electronic Journal of Literacy Through Science*, 1, Article 4. Retrieved May 31, 2002 from <http://sweeneyhall.sjsu.edu/ejlts/vol1-2.htm>
- +*Akerson, V. L., & Reinkens, K. A. (2002). Preparing preservice elementary teachers to teach for conceptual change: A case study. *Journal of Elementary Science Education*, 14, 29-46.
- +* Bohrmann, M. L., & Akerson, V. L., (2001). A teacher's reflections on her actions to improve her female students' self-efficacy toward science. *Journal of Elementary Science Education*, 13 (2), 41-55.
- * Akerson, V. L., Flick, L. B., & Lederman, N. G. (2000). The influence of young children's ideas in science on teaching practice. *Journal of Research in Science Teaching*, 37, 363-385.
- *Akerson, V. L., (2001). Teaching science when the principal says "teach language arts" *Science and Children*, 38 (7), 42-48. Also reprinted in *Teaching teachers: Bringing first rate science to the elementary classroom*. Arlington, VA: NSTA Press.

- * Akerson, V. L., Abd-El-Khalick, F. S., & Lederman, N. G. (2000). The influence of a reflective activity-based approach on elementary teachers' conceptions of the nature of science. *Journal of Research in Science Teaching*, 37, 295-317.
- +* Akerson, V. L., & Flanigan, J. (2000). Preparing preservice teachers to use an interdisciplinary approach to science and language arts instruction. *Journal of Science Teacher Education*, 11, 287-313.
- *Medina, V. F., Akerson, V. L., & Wang, N. (2000). Using research projects to enhance environmental engineering laboratory courses. *American Society for Engineering Education Annual Conference & Exposition Proceedings*. CD-ROM Session 3551 (<http://www.asee.org/conferences/search/20672.pdf> (peer reviewed)).
- * Akerson, V. L., & Flick, L. B. (1999). Teacher and student perspectives about the importance of primary children's ideas in science. *Journal of Elementary Science Education*, 11 (2) 31-55.
- *Dickinson, V. L., & Young, T. A. (1998). Elementary science and language arts: Should we blur the boundaries? *School Science and Mathematics*, 98, 334-339. Reprinted in *Appraisal: Science Books for Young People*, 32 (2) 1-6.
- * Dickinson, V. L., & Flick, L. B. (1998). Beating the system: Course structure and student strategies in a traditional introductory undergraduate physics course for non-majors. *School Science and Mathematics*, 5, 238-246.
- *Dickinson, V. L., Burns, J., Hagen, E., & Locker, K. M. (1997). Becoming better primary science teachers—A description of our journey. *Journal of Science Teacher Education*, 8, 295-311.
- *Dickinson, V. L., & Flick, L. B. (1996). How to succeed in physics without really crying. *Science and Children*, 33 (8), 37-38. Also reprinted in *Washington Science Teachers' Journal*, 36 (3), 32-33.

Encyclopedia Entry

Park Rogers, M., Akerson, V. L., & Buck, G. A. (Accepted). Science education curricula from a U. S. perspective. In D. Flinders (Ed) *Encyclopedia of Education*. Routledge.

Published—Book Chapters

+ *indicates publication with doctoral students*

Akerson, V. L., Ariyaratne, T/, Cesljarjev, C., & El Ahmadie, N. (accepted). Science Education in the Elementary Grades in the United States: Teaching and Learning

- Science. I Viveiro, A., Cristina de Senzi Zancul, M. & Neves da Rocha (Eds) *International Perspectives on Elementary Science Education*, State University of Campinas, Brazil.
- Akerson, V. L., & Buck, G. A. (Accepted). Next Generation Science Standards: Possibilities, not Prescriptions, for STEM Education. In S. M. Balushi, L. Martin-Hansen, and Y. Song (Eds) *Reforming Science Teacher Education Programs in STEM Era: International practices*: Palgrave.
- Akerson, V. L., & Carter, I. S. (Accepted). The nature of science is an important aspect of science, but can my third graders understand it? In D. Tippins, L. Bryan, Z& S. Jeong (Eds). *Elementary Science Casebook*.
- Akerson, V. L., & Bartels, S. (accepted). Elementary science education. In N Lederman, D Zeidler, and J Lederman *Handbook of Research on Science Education Volume III*. Routledge.
- Avsar-Erunit, B., Akerson, V.L., & Buck, G. A. (accepted). Teaching science in another Culture: International Teaching Assistants in Science Education Departments. In M. Atwater (Ed) *International Handbook of Research on Multicultural Science Teaching*. Springer.
- +Zhong, Q., Ariyaratne, T., Yang, J., Rahman, S., & Akerson, V. (2021). It's hard to focus on the content knowledge: Understanding a doctoral student instructor's emotional challenges of teaching science during the COVID-19 pandemic. In V. L. Akerson & I. S. Carter (Eds.), *Science Education during the COVID-19 Pandemic: Tales from the Front Lines* (pp. 93-116). ISTES Organization.
- Akerson, V. L., Carter, I., & Cesljarev, C. (2021). Feeling like a first year teacher all over again: Teaching elementary science methods during COVID-19. In V. L. Akerson & I. S. Carter (Eds.), *Science Education during the COVID-19 Pandemic: Tales from the Front Lines* (pp. 145-164). ISTES Organization.
- +Carter, I., Akerson, V., & Cesljarev, C. (2021). Reflections on teaching fully asynchronously: A self-study of elementary science and health methods during the COVID-19 pandemic. In V. L. Akerson & I. S. Carter (Eds.), *Science Education during the COVID-19 Pandemic: Tales from the Front Lines* (pp. 165-190). ISTES Organization.
- +Cesljarev, C., Akerson, V., & Carter, I. (2021). Wholehearted lessons: Developing as a teacher educator during a global pandemic. In V. L. Akerson & I. S. Carter (Eds.), *Science Education during the COVID-19 Pandemic: Tales from the Front Lines* (pp. 191-216). ISTES Organization.
- Akerson, V. L. (2019). Teaching and learning science in early childhood education. In C. Brown, N. File, and M. McMullen (Eds) *Handbook of Early Childhood Care and Education*. Pp. 355-374. Wiley Blackwell Publishing.

- Akerson, V. L. (2018). Defining the 'S' in STEM: Nature of science as a component of STEM literacy. In M. Shelley (Ed) *Research Highlights in STEM Education*. Turkey: ISRES Publishing
- +Buck, G. A., Akerson, V. L., & Gilles, B. (2016). Garnering the experiences and understandings emerging from self studies in science teacher education. In G. A. Buck and V. L. Akerson (Eds) *Enhancing professional Knowledge of Pre-Service Science Teacher Education by Self-Study Research*. Pp. 3-22. Dordrecht: Springer.
- Buck, G. A., & Akerson, V. L. (2016). Supporting new members as they transition into our science education community of practice. In G. A. Buck and V. L. Akerson (Eds) *Enhancing professional Knowledge of Pre-Service Science Teacher Education by Self-Study Research*. Pp. 363-384. Dordrecht: Springer.
- Akerson, V. L., & Buck, G. A. (2016). Turning a critical eye on our practice: Influence of current stories. In G. A. Buck and V. L. Akerson (Eds) *Enhancing professional Knowledge of Pre-Service Science Teacher Education by Self-Study Research*. Pp. 433-448. Dordrecht: Springer.
- +Akerson, V. L., Weiland, I. S., & Elcan, N. (2015). On the nature of professional identity for nature of science: Characteristics of teachers who view themselves as teachers of nature of science and their teaching practice. In L. Avraamidou (Ed) *Studying science teacher identity: Theoretical, methodological, and empirical explorations*. Dordrecht: Sense.
- +Akerson, V.L., Weiland, I.S., & Fouad, K. (2015). Children's ideas about life science. In K. C. Trundle and M. Sackes (Eds) *Research in early childhood science education*. Pp. 99-123. Dordrecht: Springer.
- Weiland, I.G., Blieden, K., & Akerson, V. L. (2014). Integrating the nature of science. *Science and Children, 1*, 6-10.
- +Akerson, V.L. (2014). What is the matter anyway? Exploring content and nature of science through oobleck. In P. Morrell and K. Popejoy (Eds) *Methods for teaching science methods*. Dordrecht: Sense.
- + Walls, L., Buck, G. A., & Akerson, V. L. (2013). Race, culture, and nature of science in elementary settings. In Bianchini, et. al (Ed) *Moving the Equity Agenda Forward: Equity Research, Practice, and Policy in Science Education*. (p. 131-152) Dordrecht, Heidelberg: Springer.
- + Akerson, V. L., Weiland, I.S., Nargund-Joshi, V., & Pongsanon, K. (2013). Becoming an elementary teacher of nature of science: Lessons learned for teaching elementary science. In M. Dias, C. Eick, and L. Brantley-Dias (Eds) *Science*

Teacher Educators as K-12 Teachers: Practicing What we Teach.

- +Akerson, V. L., Townsend, J. S., Weiland, I. S., & Nargund-Joshi, V. (2012). Developing an on-line/on-site community of practice to support K-8 teachers' improvement in inquiry and nature of science conceptions. In P. Ghislandi (Ed) *E-Learning: Theories, design, software, and application.* (P. 187-212). Croatia: InTech.
- +Akerson, V. L., White, O., Colak, H., & Pongsanon, K. (2011). Relationships between elementary teachers' conceptions of scientific modeling and the nature of science. In M. S. Khine and I. M. Saleh (Eds) *Models and modeling: Cognitive tool for scientific inquiry.* Netherlands: Springer, pp. 221-238.
- Akerson, V. L., & Young, T. A. (2011). Science the "Write" way: Nonfiction writing activities help students learn science. In J Wheeler-Toppen (Ed) *Science the "Write Way.* Pp. 5-10 NSTA Press: Arlington, VA.
- Lederman, N. G., Abell, S., & Akerson, V. L. (2008). Students' knowledge and skill with inquiry. In E. Abrams, S. Southerland and P. Silva (Eds) *Inquiry in the classroom: Challenges and opportunities.* Information Age Publishing: Greenwich, CT.
- *Akerson, V., Roth McDuffie, A., & Morrison, J. (2006). Using performance assessment tasks as a context for field experiences for pre-service teachers. In M. McMahon, P. Simmons, R. Sommers, D. DeBaets, and F. Crawley (Eds) *Assessment in science: Practical experiences and educational research.* (P. 159-172). Arlington, VA: NSTA Press.
- Akerson, V. L., & Roth McDuffie, A. (2006). The elementary science teacher as researcher. In K. Appleton (Ed.) (p. 259-274). *Elementary science teacher education: Contemporary issues and practice.* Lawrence Erlbaum.
- +Akerson, V. L., & Hanuscin, D. (2005). A collaborative endeavor to teach the nature of scientific inquiry: There's more to science than meets the "I." In R. A. Yager (Ed.) (p. 1-12). *Exemplary science: Best practices in professional development.* NSTA Press: Arlington.
- +Hollinger, K., & Akerson, V. L., (2006). Putting the question first: Adapting science curricula in the kindergarten classroom. In R.E. Yager and S. K. Enger (Eds) (p. 1-8), *Exemplary science in grades pre-K-4: Standards-based success stories.*, NSTA Press: Arlington.
- Akerson, V. L. (2002). Is one "right" way the wrong way to think about teaching elementary science? In D. Tippins, T. Koballa & T. Payne, (Eds.) (pp. 194-195), *Science teaching and learning in the elementary classroom: A classroom case handbook.* WA: Allyn & Bacon.

Akerson, V. L. (accepted). How does water move through plants? In N.G. Lederman and J. S. Lederman (Eds). *Activities for teaching the Nature of Science K-12*. Arlington, VA: NSTA Press.

Books

Akerson, V. L. & Carter, I. S. (Eds.). (2021). *Science Education during the COVID-19 Pandemic: Tales from the Front Lines*. ISTES Organization.

Akerson, V. L., & Buck, G. A. (2020). *Critical Issues in STEM Education*. Springer: Dordrecht.

Wallace-Spurgin, M. (2020). *Measuring student cognitive engagement when using technology*. I. Sahin & V. Akerson (Eds). Monument, CO, USA: ISTES Organization.

Buck, G. A., & Akerson, V. L. (2016). *Enhancing professional knowledge of pre-service science teacher education by self-study research—turning a critical eye on our practice*. Springer: Dordrecht.

Lederman, N.G., Lederman, J., & Akerson, V. L. (Under Contract) *Developing Scientific Literacy Through Practices and Nature of Science in K-12 Classrooms*. NSTA Press: Washington DC.

Akerson, V. L., Lederman, J. L., & Lederman, N. G. (Under Contract). *Developing Scientific Literacy Through Practices and Nature of Science in Elementary Classrooms*. NSTA Press: Washington DC.

Lederman, J., Akerson, V. L., & Lederman, N. G. (Under Contract). *Developing Scientific Literacy Through Practices and Nature of Science in Middle School Classrooms*. NSTA Press: Washington DC.

Lederman, N. G., Lederman, J., & Akerson, V. L. (Under Contract). *Developing Scientific Literacy Through Practices and Nature of Science in High School Classrooms*. NSTA Press: Washington DC.

Akerson, V. L. (Ed). (2007). *Interdisciplinary language arts and science instruction in elementary classrooms: Applying research to practice*. Lawrence Erlbaum: Mahwah, NJ.

Bianchini, J., Akerson, V. L., Calabrese-Barton, A., Lee, O., & Rodriguez, A. (2013). *Moving the Equity Agenda Forward: Equity Research, Practice, and Policy in Science Education*. Springer.

Published—Others

- Akerson, V. L. (2006). Review of *Teach science with science fiction films: A guide for teachers and library media specialists*, by Terence W. Cavanaugh and Cathy Cavanaugh. In *Science Good and Films: Your Review Guide to Science Resources for All Ages*, 42 (1), 25.
- Akerson, V. L. (2005). Review of *Rachel Carson: A Biography* by Arlene R. Quaratiello. In *Science Books and Films: Your Review Guide to Science Resources for All Ages*, 41 (2), 72.
- Akerson, V. L. (2004). Review of *A Vision for Science Education: Responding to the Work of Peter Fensham* by Roger Cross, 106, (2), 248-251.
- Akerson, V. L. (2003). Review of *Rachel Carson: Author/Ecologist*. In *Science Books and Films: Your Review Guide to Science Resources for All Ages*, 39 (4), 168.
- Akerson, V. L. (2002). Review of *Primary Science: Taking the Plunge: How to Teach Science More Effectively for Ages 5 to 12* by Wynne Harlen. In *Science Books and Films: Your Review Guide to Science Resources for All Ages*, 38 (5), 498.
- Akerson, V. L. (2002). Review of *Access Nature* by Beth Almeras and David Heath. In *Science Books and Films: Your Review Guide to Science Resources for All Ages*, 38 (4), 470.
- +Pringle, R. L., & Dickinson, V. L. (2000). Classroom learning activities that generate the most participation in middle school science. (ERIC Document Reproduction Service No. ED 442 650)
- +Wright, A. F., & Dickinson, V. L. (2000). Integrating technology into the science classroom. (ERIC Document Reproduction Service No. ED 443 659)
- Dickinson, V. L., Flick, L. B., & Lederman, N. G. (2000). Student and teacher concepts about astronomy: Influences on changes in their ideas. (ERIC Document Reproduction Service No. ED 442 652)
- Wiesman, K. C., Dickinson, V. L., Kemp, A., Wang, H., Rascoe, B., & Bryan, L. (1998). Graduate students' forum. *AETS Newsletter*, 32 (2), 7.
- Flick, L. B., & Dickinson, V. L. (1997). *Teacher intentions, teaching practice, and student perceptions of inquiry-oriented teaching*. National Association for Research in Science Teaching: Oak Brook, IL. (ERIC Document Reproduction Service No. ED 407 254)
- Dickinson, V. L. (1996). *Oil and water don't mix: What about science and language arts?* National Association for Research in Science Teaching: St. Louis, MO. (ERIC Document Reproduction Service No. ED 394 836)

Dickinson, V. L. (1993). Research into practice. *Council for Elementary Science International Newsletter*, 27 (1), 4-5.

Dickinson, V. L., & Young, T. A. (1999) Making time for science: A rationale and suggestions for effective inter-disciplinary science and language arts instruction. *SMEC Newsletter*, 5(1), 8-12. (SMEC Newsletter is a publication of the Science and Mathematics Education Center, Division of Education Programs, American University of Beirut.)

Dickinson, V. L. (1999). First annual Washington regional future city competition a success! *The Relay: A Publication of the Richland Section of the Institute of Electrical & Electronics Engineers*. 12 (1), 3.

Dickinson, V. L. (1996, July). It's time for science: Some ideas for an interdisciplinary approach. *Washington Science Teachers Newsletter*, 8 (1), 1-2.

Dickinson, V. L. (1995). Integrating literature with technology workshop. *Washington Science Teachers Journal*, 35 (2), 36.

Dickinson, V. L. (1994). Whirly bird fun. *Washington Science Teachers Association Journal*, 34 (1).

Grants Funded

+ **Indicates work with doctoral students**

- 2021-2022 Buck, G.A., Dimitrieska, V, & Akerson, V.L. *Exploring and Enhancing the Efficacy of a Peer-Led-Team-Learning Approach in Preparing Rural educators to Teach Locally-Tailored and Globally-Focused Science*. \$75,000
- +2017-2019 Buck, G. A., & Akerson, V. L. Science the “Write” Way: Using Literacy in Science Teaching to Support Indiana’s Rural Teachers in Addressing the New Academic Science Standards. \$300,087.
- +2019-2020 Akerson, V.L. & Cesljarev, C. (2019). Assessment of Literacy and Science Objectives. Kempf Internal Funding \$5,500
- +2014-2016 Galindo, E. & Akerson, V. L. Greene County SMAPP Professional Development grant through Greene County School Corporation.
- +2007-2011 Galindo, E., Norton, A., & Akerson, V. L. “Iterative Model Building (IMB): A Program for Training Quality Teachers and Measuring Teacher Quality.” National Science Foundation DR-K-12 Program. \$1,500,000.

- 2007-2008 Akerson, V. L. Supplemental Funding for “Scientific Modeling for Inquiring Teachers Network (SMIT’N).” Indiana State Department of Education Math and Science Partnership Program. \$5,620.00.
- +2005-2008 Akerson, V. L., Bonner, J., Schick, J. & Q612 Graduate Students “Scientific Modeling for Inquiring Teachers Network (SMIT’N).” Indiana State Department of Education Math and Science Partnership Program. \$290,399.
- 2005 Mason, T., Akerson, V. L., Henson, J. Science Education Training Program for Korean Primary School Teachers National Institute for International Education Development Ministry of Education and Human Resources Development Republic of Korea.
- +2004-2006 Akerson, V. L., & Hanuscin, D. “Science EDUCATES: Science Educator Development: Understanding Content and Teaching it Effectively to Students.” Indiana Commission for Higher Education Improving Teacher Quality Partnership Program. \$120,000.
- +2004-2006 Akerson, V. L., & Cullen, T.A. “Standards Matter: Helping Elementary Teachers Effectively Teach Science While Addressing Mandated State Standards.” Committee on Research on Standards and Assessments, Internal Funding, \$10,000.
- +2003 Akerson, V. L., & Hanuscin, D.L. “Learning Science by Inquiry: An Elementary Teacher Enhancement Project.” Proffitt Internal Funding Supplement. \$10,000
- +2001 Akerson, V. L., & Hanuscin, D. L. “Learning Science by Inquiry: An Elementary Teacher Enhancement Project.” Proffitt Internal Funding. \$30,000.
- 2000 Received \$35,000 from Office of Superintendent of Public Instruction Eisenhower Funding to present Summer 2001 workshop entitled “Investigating the Salmon Issue: A K-8 Inquiry Teacher Institute.”
- 2000 Received \$2889 from PT3 Mini-Grant, Washington State University
- 1999 Received \$31,700 from Office of Superintendent of Public Instruction Eisenhower Funding to present Summer 2000 workshop entitled “Big River, Big Learning.”
- 1999 Awarded \$50,000 from National Institute for Environmental Renewal to present summer 1999 workshop entitled “Environmental Renewal Issues Teacher Institute.”

- 1998 Awarded \$2000 grant from Summer Session to develop and teach a new course “Children’s Literature and Hands-on Science” for summer 1999
- 1997 Awarded \$535 from the Dean’s Special Fund to present Kids ‘N Science for 3rd to 5th graders on WSU-TC site.

Grants Submitted

- 2019 Buck, G.A., Dimitrieska, V, & Akerson, V.L. *Exploring and Enhancing the Efficacy of a Peer-Led-Team-Learning Approach in Preparing Rural educators to Teach Locally-Tailored and Globally-Focused Science*. National Science Foundation. 2,632,962.00 Pending.
- 2017 Buck, G. A. & Akerson, V. L. *Exploring the Efficacy of a Peer-Led-Team-Learning Approach to Fostering Rural Elementary Teachers’ Understandings of and Pedagogical Skills in Science*. Institute for Education Sciences. \$1,399,892. Not funded
- 2017 Buck, G. A., Akerson, V. L., Hmelo-Silver, C., Cross, D. *Center for Elementary Science Education*. Institute for Education Sciences. \$4,715,855. Not funded
- 2013 Galindo, E., Akerson, V. L., Park Rogers, M., & Jacobson, E. *Iterative Model Building: A program for Training Quality Teachers*. National Science Foundation
- 2007 Akerson, V. L. (2007). *Content Area Reading in Chemistry and Biology: Reading in Science Education (RISE)*. Indiana State Department of Education Math and Science Partnership Program. \$382,892.
- 2007 Akerson, V. L., & Buzzelli, C. A. *The Nature of Teaching the Nature of Science: The Influence of Our Teaching on our Students’ Teaching Practice*. Scholarship of Teaching and Learning at Indiana University. \$2500. not funded.
- 2007 Buck, G. A., Akerson, V. A., & Park Rogers, M. *Exploring the Efficacy of a Longitudinal Approach to Foster Pre-Service Teachers’ Understandings and Skills in Using Formative Assessment*. National Science Foundation, Discovery Teaching K-12 Program. \$1,483,149. not funded.
- 2006 Akerson, V. A., & Buck, G. A. *Exploring and Comparing Pre-Service Teachers’ Evolving Understandings And Skills Associated With Scientific Inquiry, Inquiry Learning And Inquiry Teaching And The Impact On K-6 Student Learning*, Department of Education—Institute for Educational Sciences. \$1,133, 103. funding pending.

- 2006 Akerson, V. L., & Lesh, R. A. *SMART: Scientific Modeling and Reflective Teaching*. National Science Foundation Teachers Professional Continuum. \$2, 293,733. Not funded.
- 2006 Akerson, V. L., & Lesh, R. A. *SMART: Scientific Modeling and Reflective Teaching*. Indiana Commission for Higher Education Improving Teacher Quality. \$125,699. Not funded.
- 2005 Akerson, V. L., & Buzzelli, C. A. *Preparing Indiana University's Preservice Teachers to Understand the Sociocultural Nature of Science*. Scholarship of Teaching and Learning, \$2500. not funded.
- 2002 Akerson, V.L. & Hanuscin, D. *Science EDUCATES: Science Educator Development: Understanding Content and Teaching it Effectively to Students*. National Science Foundation. \$4,390,558. Not funded.
- 2001 Akerson, V. L. *Science EDUCATES: Science Educator Development: Understanding Content and Teaching it Effectively to Students*. National Science Foundation. \$3,025,006. Not funded (only 14% submitted were funded).
- 2002 Volrich, M. & Akerson, V. L. *The influence of an explicit/reflective approach on elementary students' views of nature of science*. Undergraduate Research and Creative Activity Partnership. Not funded.
- 2001 Akerson, V. L., & Hanuscin, D. H. *Inquiry and Assessment in Standards-Based Science Teaching*. Indiana Eisenhower Professional Development Program. \$22,847. Not funded (funding restricted to middle and high school projects).

International Presentations

+ *indicates work with doctoral or master students*

Akerson, V. L. (September, 2021). *Nature of Science as a part of STEM*. Keynote presented at the International Conference in Science, Technology, Engineering, and Mathematics. Malaysia, virtual.

Akerson, V. L. (May, 2021). *Indiana University in a Pandemic: Responses to Ensure Safety of Students, Faculty, and Staff*. Presentation for the Department of Mathematics and Science Education at Recep Tayyip Erdogan University in Cayeli/Rize TURKEY

Akerson, V. L. (April, 2021). *Suggestions for Future Elementary Nature of Science Research*. Paper presented at the NARST annual meeting, Distinguished Contributions to Science Education session, virtual.

+Akerson, V. L., Cesljarev, C., Liu, C., El Ahmadie, N., Lederman, J., & Lederman, N.

- G. (2021). *Indiana Third/Fourth Grade Students' Conceptions of the Nature of Scientific Inquiry*. Paper presented at the NARST annual meeting, virtual.
- Akerson, V. L., Cesljarev, C., Liu, C., El Ahmadi, N., Lederman, J., & Lederman, N. G. (2021). *Indiana Third/Fourth Grade Students' Conceptions of the Nature of Scientific Inquiry*. Invited Presentation for the University of Massachusetts, Amherst Institute for Social Science Research.
- Hanuscin, D. L., Hollander, A. M., Akerson, V. L., Vo, T., Bautista, N., Mistry, E., Asim S., Brunner, J., Presley, M. (January, 2021). *Methods for Methods: Elementary*. Workshop presented at Association for Science Teacher Education annual International Meeting, virtual.
- +Phillips, A., McClain, J., Rahman, S., Cesljarev, C., Zhong, Q., Liu, J., Ariyaratne, T., & Akerson, V. L. (2021, January). *Pedagogical content knowledge for nature of science development among science education doctoral students*. Paper presented at Association for Science Teacher Education annual International Meeting, virtual.
- Naizer, G., Hanuscin, D., & Akerson, V. L. (2021, January). *Past, present, and future of ASTE*. Presidential Panel presented at Association for Science Teacher Education annual International Meeting, virtual.
- Carter, I. & Akerson, V. L. (2021, January). *Using science notebooks to focus on the student and teacher perspective in an elementary methods course*. Paper presented at Association for Science Teacher Education annual International Meeting, virtual.
- Invited to present four days of seminars and research collaboration work at the University of Hong Kong faculty of education. Unfortunately, unable to participate due to Covid-19.
- + Akerson, V. L., Burgess, A., Gerber, A., Guo, M., Khan, T. A., & Newman, S. (2019, August). *The Nature of STEM? Or "Is STEM a Thing?" Discussing the Implications of STEM for Science Education*. Paper presented at the European Science Education Research Association Conference, Bologna, Italy.
- +Avsar Erumit, B., Akerson, V.L., & Buck, G. A. (2019, August). *Are We Afraid of International Instructors? Examining Experiences of International Instructors and Their Students' Perceptions of Them*. Paper presented at the European Science Education Research Association Conference, Bologna, Italy.
- +Cesljarev, C., & Akerson, V. L. (2019, August). *Assessment of K-12 Students' Science and Literacy Knowledge*. Paper presented at the European Science Education Research Association Conference, Bologna, Italy.

- +Avsar Erumit, B. & Akerson, V. L. (2018, October). Bilimin Doğasını Masal Kitaplarıyla Anlatma. Paper presented at the 13. Ulusal Fen Bilimleri ve Matematik Eğitimi Kongresi (UFBMEK), Denizli, Turkey.
- +Akerson, V.L., Burgess. A., Gerber, A., Guo, M., Khan, T. A., & Newman, S. (2018, May). *What is the meaning of STEM?* Plenary session presented at the International Conference on STEM and Educational Sciences annual meeting at Mus Alparslan University, Turkey.
- Akerson, V. L., Avsar Erumit, B., & Elcan, N. (2017, August). *Teaching nature of science through literacy: An early childhood preservice teacher study*. Paper presented at the European Science Education Research Association conference, Dublin, Ireland.
- Avsar Erumit, B., & Akerson, V. L. (2017, August). *Ways of talk in a biology classroom: Examining spoken classroom discourse and questioning-based teacher-student exchanges in evolution and human genetics units*. Poster presented at the European Science Education Research Association conference, Dublin, Ireland.
- Zeidler, D., Abd-El-Khalick, F., Herman, B., Akerson, V. L., Borgerding, L., Osborne, J., Waight, N., Lederman, J., & Erduran, S. (2017, August). *Epistemological Inquiry from the Journal of Research in Science Teaching*. Panel presented at the European Science Education Research Association conference, Dublin, Ireland.
- Akerson, V. L. (2017, May). Defining the ‘S’ in STEM: Nature of science as a component of STEM Literacy. **Keynote** presented at the International Conference of Education in Mathematics, Science, and Technology, Kusadasi, Turkey.
- Akcay, H., Akerson, V. L., Shelley, M. Osman, K. (2017, May). 21st Century skills and STEM education. Panel presented at the International Conference of Education in Mathematics, Science, and Technology, Kusadasi, Turkey.
- Buck, G. A., & Akerson, V. L. (2016, January). Supporting New Members as They Transition into our Science Education Community of Practice. Paper presented at the South African Association for Research in Science, Mathematics, and Technology Education (SAARMSTE) annual meeting, Pretoria, South Africa.
- Akerson, V. L., Lederman, J. S., Lederman, N. G., Martin-Hansen, L., & Tal, T. (2015, August). On a mission for scientific literacy: Current status and recommendations for the future. NARST Symposium at European Science Education Research Association (ESERA) meeting, Helsinki, Finland.
- Akerson, V. L. (2015, August). Young children’s ideas about life science. Paper presented at European Science Education Research Association (ESERA) meeting, Helsinki, Finland.

- Oliveira, A., & Akerson, V. L. (2015, August). Environmental agency in classroom argumentation: Crossing sociocultural and sociocognitive boundaries. Paper presented at European Science Education Research Association (ESERA) meeting, Helsinki, Finland.
- +Akerson, V. L. Pongsanon, K., Weiland, I. S., & Nargund-Joshi, V. (2014). Developing a professional identity as an elementary teacher of nature of science: A self-study of becoming an elementary teacher. Paper presented at the Australasian Science Education Research Association annual meeting, Melbourne, Victoria, AU.
- +Akerson, V. L., Nargund-Joshi, V., Weiland, I., & Pongsanon, K. (2011, September). What third grade students of differing ability levels learn about nature of science after a year of instruction. Paper presented at the conference of the European Science Education Research Association, Lyon, France.
- +Oliveira, A. W., Colak, H., & Akerson, V. L. (2009). "Who polluted the Potomac?" The translation of a US environmental story in Brazilian and Turkish classrooms. Paper presented at the biannual conference of the European Science Education Research Association (ESERA), Istanbul, Turkey.
- +Akerson, V. L., Cullen, T. A., & Hanson, D. L. (2009, August). Classroom focused assessment of elementary students' nature of science views. Paper presented at the biannual conference of the European Science Education Research Association (ESERA), Istanbul, Turkey.
- +Akerson, V. L., Buzzelli, C. A., & Donnelly, L. A. (2007, August). The relationship of cultural values, intellectual levels, and preservice teachers' views of nature of science. Paper presented at the International Conference of the European Science Education Research Association, Malmo, Sweden.

National Presentations

+indicates work with doctoral or masters students

- +Cesljarev, C., & Akerson, V. L. (March, 2020). *Assessment of K-12 Students' Science and Literacy Knowledge*, Paper selected for presentation (conference cancelled) NARST, Portland, OR.
- +Akerson, V. L., Min., M., & Aydeniz, F. (March, 2020). *Exploring Preservice Teachers' Beliefs about Effective Science Teaching through Their Collaborative Oral Reflections*. Paper selected for presentation (conference cancelled) NARST, Portland, OR.
- Avsar Erumit, B., & Akerson, V. L. (March, 2020). *Using Children's literature in the*

- Middle School Science Class to Teach Nature of Science: Preservice Teachers' Development of Source.* Paper selected for presentation (conference cancelled) NARST, Portland, OR.
- Lederman, N. G., Lederman, J. S., Akerson, V. L., Crowther, D. T., Sampson, V., & Trundle, K. (March, 2020). *Translating Your Research into Forms that are Useful for K-12 Science Educators.* Symposium selected for presentation (conference cancelled) NARST, Portland, OR.
- Akerson, V. L. (January, 2020). Goals 2000, or 2020 Vision? Presidential Address presented at the annual meeting of the Association of Science Teacher Education, San Antonio, TX
- Akerson, V. L. (2019). *The role of nature of science in an era of STEM.* Keynote presented at the International Conference on Engineering, Science, and Technology, Denver, CO.
- +Akerson, V. L., Burgess, A., Gerber, A., Guo, M., Khan, T. A., & Newman, S. (2019, January). *The Nature of STEM? Or "Is STEM a Thing?" Disentangling the Meaning of STEM: Implications for Science Education and Science Teacher Education.* Paper presented at the annual conference of the Association for Science Teacher Education, Savannah, Georgia.
- +Akerson, V. L., Avsar Erumit, B., & Buck, G. A. (2019). Paper presented at the international NARST conference, Baltimore. MD.
- +Akerson, V. L., Burgess, A., Gerber, A., Guo, M., Khan, T. A., & Newman, S (2019). *Disentangling the Meaning of STEM: Implications for Science Education* Paper presented at the international NARST conference, Baltimore. MD.
- +Akerson, V. L., Avsar Erumit, & Elcan, N. (2018, January). *Using Children's Literature as a Basis for Teaching Nature of Science in an Early Childhood Preservice Methods Course.* Paper presented at the Association for Science Teacher Education (ASTE) annual meeting, Baltimore, MD.
- +Akerson, V. L., Elcan, N., & Avsar Erumit (2018, March). *Development of Third Graders' Identities as "Persons Who Understand Nature of Science" Through a Gravity Unit.* Paper presented at the Worldwide Organization for Improving Science Teaching and Learning Through Research (NARST) annual conference, Atlanta, GA.
- +Akerson, V. L., Avsar Erumit, B., & Elcan Kaynak, N. (2018). *Teaching Nature of Science through Literacy: An Early Childhood Preservice Teacher Study.* Paper presented at the Worldwide Organization for Improving Science Teaching and Learning Through Research (NARST) annual conference, Atlanta, GA.

- +Carter, I.W., Amador, J., Akerson, V. L., Galindo, E., Park Rogers, M. (2017, October). Focusing on student thinking with preservice teachers: Applying practices across contexts. Paper presented at the Northern Rocky Mountain Educational Research Association conference, Boulder, Colorado.
- Akerson, V. L., Elcan, N., & Avsar Erumit, B. (2017, April). Developing third graders' conceptions of nature of science and scientific identities through a gravity unit. Paper presented at the Worldwide Organization for Improving Science Teaching and Learning Through Research (NARST) annual meeting, San Antonio, TX.
- Cullen, T. A., & Akerson, V. L. (2017, April). Nature of science and elementary teachers: Do changes in conceptions and teaching persist eight years following a prolonged professional development program? Paper presented at the Worldwide Organization for Improving Science Teaching and Learning Through Research (NARST) annual meeting, San Antonio, TX.
- Buck, G. A., Akerson, V. L. Feldman, A., Lederman, N. G., Lederman, J. A., Bartley, T., Holliday, G., Wallace, M., Capobianco, B., Weinburgh, M., Bloom, M., Naizer, G., Asim, S., Gilles, B., Makki, N. (2017, January). Allowing our professional knowledge of preservice teacher education to be enhanced by self-study research: Turning a critical eye on our practice. Symposium presented at the Association for Science Teacher Education (ASTE) annual meeting, Des Moines, Iowa.
- Buck, G. A., Akerson, V. L. Lederman, N. G., Lederman, J. A., Bowen, G. M., Capobianco, B., Davis, E., Gilles, B., Hume, A., Makki, N. Marble, S., Subramania, K., Trauth-Nare, A., Wallace, M. (2016, April). Allowing Our Professional Knowledge of Teacher Education to be Enhanced by Self-Study Research. Paper presented at the Worldwide Organization for Improving Science Teaching and Learning Through Research (NARST) annual meeting, Baltimore, MD.
- Duschl, R. A., Osborne, J. F., McComas, W. F., Akerson, V. L., & Stroupe, D. (2016, April). Nature of Science and the Next Generation Science Standards: Consideration, Critique, and Conversation. Paper presented at the Worldwide Organization for Improving Science Teaching and Learning Through Research (NARST) annual meeting, Baltimore, MD.
- Bilican, K., Akerson, V. L., & Cakiroglu, J. (2016, April). Contextualization: How it Works on NOS Views and NOS Teaching of Preservice Science Teachers. Paper presented at the Worldwide Organization for Improving Science Teaching and Learning Through Research (NARST) annual meeting, Baltimore, MD.
- Chinn, P., Parsons, E. R., & Akerson, V. L. (2016, April). NARST Live!: Co-Author Our Story, Meet Your Board, Get Involved! Panel presented at the Worldwide Organization for Improving Science Teaching and Learning Through Research (NARST) annual meeting, Baltimore, MD.

Akerson, V. L., Galindo, E., & Gilles, B. (2016, January). Teachers' Changing Conceptions of STEM over the Course of Long-Term Professional Development. Paper presented at the Association for Science Teacher Education (ASTE) annual meeting, Reno, NV.

Akerson, V. L. (2015, January). Aiding preservice teachers in learning and teaching nature of science: Using and writing children's books. Paper presented at the Association for Science Teacher Education annual meeting, Portland, OR.

Cullen, T. A., & Akerson, V. L. (2015, January). Nature of science and elementary teachers: Do changes in conceptions and teaching persist eight years after a prolonged professional development program? Paper presented at the Association for Science Teacher Education annual meeting, Portland, OR.

Akerson, V. L., Taylor, J., Osborne, J., Lynch, S., Carlton-Parsons, E, Baker, D., Pellegrino, J. (2015, April). Exploring Methodological Directions to Support an NGSS-Driven Research and Development Agenda. Symposium presented at the Annual International Meeting of NARST, Chicago, IL.

Akerson, V. L. (2015, April) Presider for Plenary Session STEM Vital Signs by Linda Rosen, Change the Equation, at the Annual International Meeting of NARST, Chicago, IL.

Akerson, V. L. (2015, April). NARST Business meeting.

Akerson, V. L., Atwater, M., Carlone, H.B., Fleming, M. A., Johnson, C. C., Lederman, J.S., Sonderegeld, T.A., Quigley, C. (2015, April).NARST Proposal Submission and Review Process. Symposium presented at the Annual International Meeting of NARST, Chicago, IL.

Presider for Plenary Session (2015 April) Science Teacher Education in an Era of Science Education Reform: A Global Perspective. Discussants: Lederman, N, G., & Lederman, J. S. Presenters: Ogunniyi, M., Enshan, L., Won, Mihye, Dillon, J., Olson, J., & Cofre, H. at the Annual International Meeting of NARST, Chicago, IL.

Akerson, V. L. (2015, April). Moving Forward: Presidential Address. Presidential address given at the Annual International Meeting of NARST, Chicago, IL.

Akerson, V. L., Purzer, S., Menekse, M., and Tank, K. (2015, April). An Unconference on Engineering Education: Gearing Up for New Era of Global Science Education Reform. Symposium presented at the Annual International Meeting of NARST, Chicago, IL.

- Gatzke, J., Buck, G. A., & Akerson, V. L. (2015, April) Balancing Identities: Am I a Science Teacher Educator or an Environmental Educator? Paper presented at the Annual International Meeting of NARST, Chicago, IL.
- +Akerson, V. L. Pongsanon, K., Weiland, I. S., & Nargund-Joshi, V. (2014). Developing
- +Bilican, K., Nargund-Joshi, V. J., & Akerson, V. L. (2014, March). How mentoring helps to develop nature of science teaching. Paper presented at the NARST meeting, Pittsburgh, PA.
- + Avsar Erumit, B., Fouad, K., & Akerson, V. L. (2014, February). The effect of learner-directed scientific investigations on students' questioning and their nature of science views. Paper presented at HASTI, Indianapolis, IN.
- +Akerson, V. L. Pongsanon, K., Weiland, I. S., & Nargund-Joshi, V. (2014). Developing a professional identity as an elementary teacher of nature of science: A self-study of becoming an elementary teacher. Paper presented at the annual meeting of the Association of Science Teacher Education, San Antonio, TX.
- + Akerson, V. L., Weiland, I., Nargund-Joshi, V., & Pongsanon, K. (2013, April). Evidence-based strategies for teaching nature of science to young children. Paper presented at the National Association for Research in Science Teaching, San Juan, Puerto Rico.
- +Akerson, V. L., Weiland, I., Nargund-Joshi, V., & Pongsanon, K. (2013, April). Third grade students' conceptions of NOS following one year of explicit reflective NOS instruction. Paper presented at the National Association for Research in Science Teaching, San Juan, Puerto Rico.
- Koehler, C., Akerson, V. L., Lederman, N.G., McComas, W., Abd-El-Khalick, F., McDonald, C., Binns, I. (2013, April). Nature of Science: We know the past, but what about the future? Symposium presented at the National Association for Research in Science Teaching, San Juan, Puerto Rico.
- +Oliveira, A., Akerson, V. L., & Oldfield, M. (2013, January). Environmental Argumentation as Sociocultural Activity. Paper presented at the Association for Science Teacher Education, Charleston, SC.
- +Akerson, V. L., Buck, G. A., Borgerding, L., Nargund-Joshi, V., & Weiland, I. (2013, January). Young Children's Views of NOS. Paper presented at the Association for Science Teacher Education, Charleston, SC.
- Dias, M., Eick, C.J., Weinburgh, M., Akerson, V. L., Jablon, P., Guy, M., Brown, S., Meadows, L., & Lott, K. (2013, January). Science Teacher Educators Teaching K-12 Students as Professional Development: An Interactive Panel Discussion on

- Various Approaches, Goals, and Benefits. Paper presented at the Association for Science Teacher Education, Charleston, SC.
- +Akerson, V. L., Buck, G. A., & Nargund-Joshi, V. (2012, March). The importance of teaching and learning nature of science in early childhood years. Paper presented at the National Science Teachers Association, Indianapolis, IN.
 - +Quigley, C. Buck, G. A., & Akerson, V. L. (2012, March). Elementary teachers—Take the 30 day nature of science challenge. Paper presented at the National Science Teachers Association, Indianapolis, IN.
 - +Akerson, V. L., & Nargund-Joshi, V. (2012, March). Evidence-based strategies for teaching nature of science to young children. Paper presented at the National Science Teachers Association, Indianapolis, IN.
 - +Fouad, K., Wiebke, H., & Akerson, V. L. (2012, March). Using history of science to teach the nature of science to elementary students. Paper presented at the annual meeting of the National Association of Research in Science Teaching., Indianapolis, IN.
- Lederman, N. G., Lederman, J. S., Akerson, . L., Walls, L., Buck, G. A., & Burton, E. P. (2012, March). Teaching and assessment of inquiry and nature of science with early childhood students. Paper presented at the annual meeting of the National Association of Research in Science Teaching., Indianapolis, IN.
- +Nargund-Joshi, V., Park Rogers, M. A., Wiebke, H. L., & Akerson, V. L. (2012, March). Re-thinking early field experiences for the purpose of preparing elementary preservice teachers' pedagogical content knowledge. Paper presented at the annual meeting of the National Association of Research in Science Teaching, Indianapolis, IN.
 - +Akerson, V. L., Weiland, I. S., Bilican, K., Pongsanon, K. & Park Rogers, M. A. (2012, March). Exploring elementary science methods course contexts for improving nature of science conceptions and understandings of NOS teaching strategies. Paper presented at the annual meeting of the National Association of Research in Science Teaching., Indianapolis, IN.
 - +Wiebke, H., Park Rogers, M., Nargund-Joshi, V., & Akerson, V. L. (2012, January). Iterative Model Building: Developing preservice elementary teachers' abilities to uncover students' scientific thinking to inform instruction. Paper presented at the annual meeting of the Association for Science Teacher Educators, Clearwater, FL.
 - +Oliveira, A., & Akerson, V. L. (2012, January). The implicit communication of nature of science through teacher hedging. Paper presented at the annual meeting of the Association for Science Teacher Educators, Clearwater, FL.

- +Akerson, V. L., Weiland, I., Park Rogers, M., Pongsanon, K., & Bilican, K. (2012, January). Elementary science methods courses: Varying contexts for improving conceptions of and strategies for teaching nature of science. Paper presented at the annual meeting of the Association for Science Teacher Educators, Clearwater, FL.
- +Colak, H., Oliveira, A., Akerson, V. L., Pongsanon, K., & Genel, A. (2011, April). Teacher hedging and the tentative nature of science inquiry discussions. Paper presented at the annual conference of the National Association for Research in Science Teaching, Orlando, FL.
- +Akerson, V. L., Nargund, V., Weiland, I. S., & Pongsanon, K. (2011, April). Case studies of third graders' conceptions of nature of science. Paper presented at the annual conference of the National Association for Research in Science Teaching, Orlando, FL.
- +Bianchini, J., A., Akerson, V. L., Calabrese-Barton, A. M., Lee, O., & Rodriguez, A. J. (2011, April). Moving the equity agenda forward: Equity research, practice, and policy in science education. Paper presented at the annual conference of the National Association for Research in Science Teaching, Orlando, FL.
- +Pongsanon, K., Akerson, V. L., Park Rogers, M., & Weiland, I. S. (2011, April). Exploring the use of lesson study to develop elementary preservice teachers' PCK for NOS. Paper presented at the annual conference of the National Association for Research in Science Teaching, Orlando, FL.
- +Akerson, V. L., Nargund, V., Weiland, I., & Pongsanon, K. (2011, January). Comparative case studies of the development of third graders' conceptions of nature of science. Paper presented at the annual conference of the Association for Science Teacher Educators., Minneapolis, MN.
- Feldman, A., Capobianco, B., Cullen, T., Lebak, K., Subramaniam, K., Megowan-Romanowicz, C., Akerson, V., Hanson, D., Tinsley, R., Goodnough, K. (2011, January). Action research in science teacher education. Paper presented at the annual conference of the Association for Science Teacher Educators., Minneapolis, MN.
- Finson, K., Farland-Smith, D., Carnes, N., Akerson, V., Tippett, C., Milford, T., Cullen, T. (2011, January). Somewhere over the rainbow: Potential futures for DAST research. Paper presented at the annual conference of the Association for Science Teacher Educators., Minneapolis, MN.
- +Weiland, I., Park Rogers, M., Pongsanon, K., & Akerson, V. (2011, January). Fostering PSTs knowledge of how to build models of elementary children's thinking. Paper presented at the annual conference of the Association for Science Teacher Educators., Minneapolis, MN.

- +Weiland, I.S., Akerson, V. L., Park Rogers, M. , & Pongsanon, K. (2010, March). Lesson study with preservice teachers: Perceptions on the role of peer feedback in supporting reflective practice. Paper presented at the annual conference of the National Association for Research in Science Teaching. Philadelphia, PA.
- +Deniz, H., & Akerson, V. L., (2010, March). Teaching about nature of science and scientific inquiry integrated with language arts at the elementary level. Paper presented at the annual conference of the National Association for Research in Science Teaching. Philadelphia, PA.
- Akerson, V. L., Pearson, R., Wong, A. , Lie, H., Granger, E., Rose, K., Lederman, N.G., Lederman, J. S., Schwartz, R., & Southerland, S. (2010, March). Putting nature of science research into classroom practice: Real teachers...real teaching. Symposium presented at the annual conference of the National Association for Research in Science Teaching. Philadelphia, PA.
- +Akerson, V. L., Buzzelli, C. A., & Eastwood, J. L. (2010, March). Bridging the gap between preservice early childhood teachers' cultural values, the values they perceive are held by scientists, and relationships to conceptions of Nature of Science. Paper presented at the annual conference of the National Association for Research in Science Teaching. Philadelphia, PA.
- +Akerson, V. L., Pongsanon, K. , Nargund, V., & Weiland, I. (2010, March). Teaching nature of science in a third grade classroom: An assessment of strategies and student knowledge. Paper presented at the annual conference of the National Association for Research in Science Teaching. Philadelphia, PA.
- Abell, S. K., Smith, D. C., Moore-Mensah, F., Friedrichsen, P. M., Akerson, V. L., Feldman, A., Munford, D., Zembal-Saul, C. (2010, March). Mentoring doctoral researchers: Stories from the NARST summer research institute. Symposium presented at the annual conference of the National Association for Research in Science Teaching. Philadelphia, PA.
- +Townsend, J. S., Akerson, V. L., Weiland, I. S. (2010, March). Developing a hybrid online/on site community of practice to support K-8 teachers' improvement in inquiry and nature of science conceptions. Paper presented at the annual conference of the National Association for Research in Science Teaching. Philadelphia, PA.
- +Akerson, V. L., Pongsanon, K., Nargund, V., & Weiland, I. (2010, January). Learning to teach nature of science in a third grade classroom: Can I do it? Paper presented at the annual conference of the Association for Science Teacher Education, Sacramento, CA.
- +Weiland, I., Park Rogers, M., Akerson, V. L., & Pongsanon, K. (2010, January). Developing a way to determine preservice teachers' abilities to predict elementary

- students' scientific reasoning. Paper presented at the annual conference of the Association for Science Teacher Education, Sacramento, CA.
- +Townsend, J. S., Akerson, V. L., & Weiland, I. (2010, January). Developing a hybrid online/on-site community of practice to support K-8 teachers' improvement in inquiry and nature of science conceptions. Paper presented at the annual conference of the Association for Science Teacher Education, Sacramento, CA.
- +Park Rogers, M. A., Pongsanon, K., Akerson, V. L., & Weiland, I. S. (2009, April). Using Lesson Study with preservice elementary teachers: Improving their knowledge about science teaching. In M. Kamen (Chair), *Reflective practice and professional development through Japanese Lesson Study*. Symposium conducted at the meeting of the National Association for Research in Science teaching (NARST), Garden Grove, CA.
- +Akerson, V. L., Donnelly, L. A., Riggs, M. L., & Eastwood, J. (2009, April). Supporting preservice elementary teachers' Nature of Science instruction. Paper presented at the meeting of the National Association for Research in Science teaching (NARST), Garden Grove, CA.
- +Akerson, V. L., Buzzelli, C. A., & Eastwood, J. (2009, April) The relationship between preservice early childhood teachers' cultural values and their perceptions of scientists' cultural values. Paper presented at the annual conference of the American Educational Research Association, San Diego, CA.
- +Akerson, V. L., Donnelly, L. A., Riggs, M. L., & Eastwood, J. (2009, April). Supporting preservice elementary teachers' nature of science instruction through a community of practice. Paper presented at the annual conference of the American Educational Research Association, San Diego, CA.
- +Akerson, V. L., & Lukasik, D. (2009). A collaboration between university and elementary schools. Paper presented at the annual conference of the Hoosier Association for Science Teaching Incorporated (HASTI). Indianapolis, IN.
- +Akerson, V. L., & Donnelly, L. A. (2008). Teaching Nature of Science to K-2 Students: What Can They Gain from Instruction? Paper presented at the annual conference of the National Association of Research in Science Teaching, Baltimore, MD.
- +Akerson, V. L., Buzzelli, C. A., & Donnelly, L. A. (2008). On the nature of teaching nature of science: Preservice early childhood teachers' instruction in preschool and elementary settings. Paper presented at the annual conference of the National Association of Research in Science Teaching, Baltimore, MD.
- +Oliveira, A., Colak, H., & Akerson, V. L. (2008). "Who polluted the Potomac?" The translation and implementation of an environmental story in Brazilian and Turkish

- elementary classrooms. Paper presented at the annual conference of the National Association of Research in Science Teaching, Baltimore, MD.
- +Hanuscin, D. L., Lee, M. H., & Akerson, V. L. (2008). Pedagogical content knowledge for teaching the nature of science: A study of teachers effective in impacting students' views. Paper presented at the annual conference of the National Association of Research in Science Teaching, Baltimore, MD.
- +Pongsanon, K., Oliveira, A., Akerson, V. L., Genel, A., & Colak, H. (2008). Getting the big picture: The impact of a summer workshop on teachers' views of scientific inquiry, nature of science, and classroom interaction. Paper presented at the annual conference of the National Association of Research in Science Teaching, Baltimore, MD.
- +Donnelly, L. A., & Akerson, V. L. (2008). High school biology students' evolution learning experiences. Paper presented at the annual conference of the National Association of Research in Science Teaching, Baltimore, MD.
- +Cullen, T. A., Akerson, V. L., & Hanson, D. L. (2008). How does a two- year professional development program influence K-6 attitudes of and use of science standards in their teaching? Paper presented at the annual conference of the American Educational Research Association, NY.
- +Akerson, V. L., & Hanuscin, D. L. (2008, March). NSTA's Exemplary Science Program: Exemplary Science Program Focusing on Professional Development. Paper presented at the annual conference of the National Science Teachers Association, Boston, MA.
- +Akerson, V. L., & Donnelly, L. A. (2008, January). Relationships among learner characteristics and preservice elementary teachers' views of nature of science. Paper presented at the annual conference of the Association of Science Teacher Educators, St. Louis, MO.
- +Oliveira, A. W., White, O., Akerson, V. L., Colak, H., & Pongsanon, K. (2008). Teacher-student interaction: Drawing connections among classroom discourse, scientific inquiry, and explicit NOS instruction. Workshop presented at the annual conference of the Association of Science Teacher Educators, St. Louis, MO.
- +Akerson, V. L., Buzzelli, C. A., & Donnelly, L. A. (2007, November). On the nature of teaching nature of science: Preservice early childhood teachers' instruction in preschool and elementary classrooms. Paper presented at the annual conference of the School Science and Mathematics Association, Indianapolis, IN.
- +Akerson, V. L., Cullen, T. A., & Hanson, D. L. (2007, April). Using action research as professional development to support elementary teachers' teaching the nature of

- science to elementary students. Paper presented at the annual meeting of the American Educational Research Association, Chicago, IL.
- +Akerson, V. L., Buzzelli, C. A., & Donnelly, L. A. (2007, April). Early childhood teachers' views of nature of science: The influence of intellectual levels, cultural values, and explicit reflective teaching. Paper presented at the annual meeting of the American Educational Research Association, Chicago, IL.
- +Akerson, V. L., Graves, I., Phillipson-Mower, T., Crowther, D., Cannon, J., Richard, J., Shea, K., Britsch, S. J., & Shepardson, D. P. (2007, April). Interdisciplinary language arts and science instruction in elementary classrooms: Research into practice. Symposium presented at the annual meeting of the American Educational Research Association, Chicago, IL.
- +Akerson, V. L., Hanson, D. L., & Cullen, T. A. (2007, April). Supporting elementary teachers' efforts to teach nature of science through action research. Paper presented at the annual meeting of National Association of Research in Science Teaching, New Orleans, LA.
- +White, O. L., Akerson, V. L., Colak, H., & Pongsanon, K. (2007, April). Scientific modeling for inquiring teachers network (SMIT'N): The relationship between elementary teachers' views of scientific modeling and nature of science. Paper presented at the annual meeting of National Association of Research in Science Teaching, New Orleans, LA.
- +Akerson, V. L., Buzzelli, C. A., & Donnelly, L. A. (2007, April). The relationship of cultural values, intellectual levels, and preservice teachers' views of nature of science. Paper presented at the annual meeting of National Association of Research in Science Teaching, New Orleans, LA.
- Fortney, B., Akerson, V. L., Crawford, B. A., Gilmer, P., McGinnis, J. R., Venville, G. (2007, April). New Researcher Orientation Symposium. Presentation at the annual meeting of National Association of Research in Science Teaching, New Orleans, LA.
- +Hanson, D. L., Akerson, V. L., & Cullen, T. A. (March, 2007). Teaching nature of science: tips, strategies and insight to student learning. Paper presented at the annual meeting of the National Science Teachers Association, St. Louis, MO.
- +Akerson, V. L., Hanson, D. L., & Cullen, T. A. (January, 2007). Preparing elementary teachers to use action research to track the effectiveness of their instruction on elementary students' views of nature of science. Paper presented at the annual meeting of the Association of Science Teacher Educators, Clearwater, FL.
- Akerson, V. L., & Buzzelli, C. A. (January, 2007). Preservice elementary teachers; cultural values, ethical and intellectual levels, and relationships to their views of

- nature of science. Paper presented at the annual meeting of the Association of Science Teacher Educators, Clearwater, FL.
- Aram, R., Powell, D., Akerson, V. L., Edmondson, E., Morrison, J., Black, K. M., Yore, L. D., Hand, B. (January, 2007). Supporting teachers to fully embrace science literacy: Good science, good literacy, good for all students! Panel presented at the annual meeting of the Association of Science Teacher Educators, Clearwater, FL.
- +Yager, R. E., Akerson, V. L., Hanuscin, D. L., Cooney, T., (2006). NSTA's Exemplary Program Symposium: ESP for Professional Development. Paper presented at the regional meeting of the National Science Teacher's Association, Baltimore, MD.
- Akerson, V. L., & Buzzelli, C. A. (June, 2006). Relationship of preservice early childhood teachers' cultural values, ethical and cognitive developmental levels, and views of nature of science. Paper presented at the meeting of the International Conference of the Learning Sciences (ICLS), Bloomington, IN.
- +Akerson, V. L., Cullen, T. A., & Hanson, D. L. (2006, April). Sustained professional development effects on K-6 teachers' nature of science and inquiry views and practice. Paper presented at the annual meeting of the American Educational Research Association (AERA), San Francisco, CA.
- Akerson, V. L., & Abd-El-Khalick, F. S. (2006, April). Enhancing preservice elementary teachers' conceptions of the nature of science through training in metacognitive strategies. Paper presented at the annual meeting of the American Educational Research Association (AERA), San Francisco, CA.
- +Akerson, V. L., & Hanuscin, D. L. (2006, April). Exemplary Science Program Focusing on Professional Development: A collaborative endeavor to teach the nature of scientific inquiry: There's more to science than meets the "I" Paper presented at the annual meeting of the National Science Teachers Association (NSTA) Anaheim, CA.
- +Akerson, V. L., Hanson, D. L., & Cullen, T. A. (2006, April). Influence of an 18 month professional development program on elementary teachers' views of nature of science and teaching practice. Paper presented at the annual meeting of the National Association for Research in Science Teaching (NARST), San Francisco, CA.
- +Townsend, J. S., Akerson, V. L., Donnelly, L. A., Hanson, D. L., Tira, P., White, O. (2006, April). Scientific modeling for inquiring teachers network (SMIT'N): The influence on elementary teachers' views of science content, nature of science, scientific inquiry, and modeling. Paper presented at the annual meeting of the National Association for Research in Science Teaching (NARST), San Francisco, CA.

- Abd-El-Khalick, F. S., & Akerson, V. L. (2006, April). Factors mediating the development of preservice teachers' views of nature of science: Explicit, reflective instruction embedded in a learning-as-conceptual-change framework. Paper presented at the annual meeting of the National Association for Research in Science Teaching (NARST), San Francisco, CA.
- Abrams, E., Southerland, S., Lederman, N., Yore, L., Moss, D., Settlage, J., Finkel, L., Abell, S., Akerson, V., Evans, C., Meadows, L. Blanchard, M., Olson, M., Greene, K., Rios, J., Smith, L., Henriques, L., Crawford, B., Colburn, A., Tillotson, J. (2006, April). Integrating inquiry into the classroom: Realities and opportunities colloquium. Paper presented at the annual meeting of the National Association for Research in Science Teaching (NARST), San Francisco, CA.
- Abd-El-Khalick, F. S., & Akerson, V. L. (2006, April). The influence of metacognitive strategies on preservice teachers' conceptions of nature of science. Paper presented at the annual meeting of the National Association for Research in Science Teaching (NARST), San Francisco, CA.
- Akerson, V. L., McGinnis, J. R., Osborne, J., Sherwood, R., Tillotson, J., & Yore, L. (2006, April). Advice for new researchers panel. Paper presented at the annual meeting of the National Association for Research in Science Teaching (NARST), San Francisco, CA.
- +Akerson, V. L., Hanson, D. L., & Cullen, T. A. (2006, February). Designing action research studies to explore and assess nature of science (NOS) teaching strategies K-8. Paper presented at the annual meeting of the Hoosiers Association of Science Teachers, Inc., Indianapolis, IN.
- +Akerson, V. L., Hanson, D. L., & Cullen, T. A. (2006, January). The influence of guided inquiry and explicit instruction on K-6 teachers' nature of science views. Paper presented at the annual meeting of the Association for Science Teacher Educators, Portland.
- Black, K. M., Akerson, V. L., Aram, R., Bard, B., Butler, M. B., Cannon, J. R., Crowther, D. T., Hand, B., Morrison, J., Powell, D. A., Shymansky, J. A., & Yore, L. D. (2006, January). Helping educators apply appropriate writing-in and writing-to-learn science strategies. Paper presented in a panel at the annual meeting of the Association for Science Teacher Educators, Portland.
- +Hanson, D. L., Akerson, V. L., Donnelly, L., Tira, P., Townsend, J., White, O. (2006, January). SMIT'N—A collaborative approach to grant writing and professional development. Paper presented at the annual meeting of the Association for Science Teacher Educators, Portland.
- +Hanuscin, D. L., & Akerson, V. L. (2005, April). *Learning the "grammar of science": K-8 teachers' understanding of NOS through inquiry in physical science*. Paper

- presented at the annual meeting of the American Educational Research Association, Montreal.
- +Akerson, V. L., & Hanuscin, D. L. (2005, April). *Teaching nature of science through inquiry: Influence of a three year professional development program*. Paper presented at the annual meeting of National Association for Research in Science Teaching, Dallas, TX. Paper also published in the 2005 NARST Conference Proceedings.
- Blakely, A., Akerson, V. L., Mason, C., Yore, L., Tillotson, J., & Shymansky, J. (2005, April). *New researcher orientation: From dissertation to career*. Panel presented at the annual meeting of National Association for Research in Science Teaching, Dallas, TX.
- +Hanson, D. L., Akerson, V. L., & Cullen, T. (2005, April). *The influence of guided inquiry and explicit instruction on K-6 teachers' nature of science views*. Paper presented at the annual meeting of National Association for Research in Science Teaching, Dallas, TX. Paper also published in the 2005 NARST Conference Proceedings.
- +Akerson, V. L., & Hanuscin, D. L. (2005, April). *A collaborative endeavor to teach the nature of scientific inquiry: There's more to science than meets the "I."* Paper presented at the annual meeting of National Science Teachers Association, Dallas, TX.
- +Phillipson-Mowrer, T., Akerson, V. L., Donnelly, L., Deniz, H., & Hanson, D. L. (2005, April). *Introducing Nature of Science into the science methods classroom*. Paper presented at the annual meeting of National Science Teachers Association, Dallas, TX.
- +Akerson, V. L., & Volrich, M. L. (2005, January). *Teaching nature of science explicitly in a first-grade internship setting*. Paper presented at the annual meeting of Association of Science Teacher Educators, Colorado Springs, CO.
- Black, K. M., Akerson, V. L., Aram, R., Butler, M., Cannon, J., Crowther, D., Hand, B., Morrison, J., Shymansky, J. L., Yore, L. (2005, January). *Developing science literacy with writing in science and writing to learn science*. Paper presented at the annual meeting of Association of Science Teacher Educators, Colorado Springs, CO.
- +Hanson, D. L., & Akerson, V. L. (2005, January). *From modeling to mentoring: Developing a new model for elementary science teaching*. Paper presented at the annual meeting of Association of Science Teacher Educators, Colorado Springs, CO.
- +Hanuscin, D. L., & Akerson, V. L. (2005, January). *Learning the "grammar of*

- science*”: *The influence of a physical science course on teachers understanding of the nature of science*. Paper presented at the annual meeting of Association of Science Teacher Educators, Colorado Springs, CO.
- +Akerson, V. L., & Hanuscin, D. L. (2005, January). *Primary teachers’ abilities to teach the nature of scientific inquiry*. Paper presented at the annual meeting of the Hawaii International Conference on Education
- Lederman, J., Akerson, V. L., & Goldston, D. (2004, November). *Elementary science make and take*. Organized panel of preservice and inservice teachers presenting activities at the National Science Teachers Association, Indianapolis, IN.
- Akerson, V. L., & Abd-El-Khalick, F. (2004, April). *The influence of metacognitive strategies on preservice early childhood teachers’ conceptions of nature of science*. Paper presented at the annual meeting of National Association of Research in Science Teaching, Vancouver, BC.
- +Akarsu, B., & Akerson, V. L. (2004, April). *What are important classroom management issues for science teaching assistants?* Paper presented at the annual meeting of National Association of Research in Science Teaching, Vancouver, BC.
- +Hanuscin, D. L., Phillipson, T., & Akerson, V. L. (2004, April). *Teaching nature of science in a physical science content course for teachers: A study of undergraduate lab instructors*. Paper presented at the annual meeting of National Association of Research in Science Teaching, Vancouver, BC.
- +Green, A., Hollinger, K., Rooney, M., Akerson, V. L., & Hanuscin, D. (2004, February). *The myth of the scientific method*. Paper presented at the annual meeting of Hoosier Association of Science Teachers, Inc., Indianapolis, IN.
- +Phillipson-Mower, T., Sadler, T., Akerson, V. L., Hanuscin, D., Deniz, H., & Donnelly, L. A. (2004). *Introducing the nature of science into the science methods classroom*. Paper presented at the annual meeting of Hoosier Association of Science Teachers, Inc., Indianapolis, IN.
- +Akerson, V. L., & Hanuscin, D. (2004, January). *There’s more to science than meets the “I”*: *A collaborative endeavor to teach the nature of scientific inquiry*. Paper presented at the annual meeting of the Association for the Education of Teachers in Science, Nashville, TN.
- +Hanuscin, D., Phillipson, T., & Akerson, V. L. (2004, January). *Learning and teaching about the nature of science: A study of undergraduate laboratory instructors*. Paper presented at the annual meeting of the Association for the Education of Teachers in Science, Nashville, TN.

- +Simonelli, G., & Akerson, V. L. (2004, January). *Assessing student conceptions of astronomy*. Paper presented at the annual meeting of the Association for the Education of Teachers in Science, Nashville, TN.
- Akerson, V. L., Morrison, J.A., & Roth McDuffie, A. (2004, January). *Preservice elementary teachers' retention of improved views of nature of science after participating in an explicit-reflective science methods course*. Paper presented at the annual meeting of the Association for the Education of Teachers in Science, Nashville, TN.
- Morrison, J., Akerson, V. L., Hand, B., Black, K.M., Yore, L., Butler, M. B. (2004, January). *Students' writing in science: Issues at the elementary and middle school levels*. Paper presented at the annual meeting of the Association for the Education of Teachers in Science, Nashville, TN.
- +Akerson, V. L., & Hanuscin, D. (2003, March). *Primary teachers' abilities to teach via scientific inquiry while making elements of nature of science explicit*. Paper presented at the annual meeting of the National Association for Research in Science Teaching, Philadelphia, PA. The paper from this presentation is published in D. Zandvliet and E. Simons *Conference Proceedings of National Association for Research in Science Teaching Conference 2003*. (CD ROM)
- Akerson, V. L., Morrison, J. A., & Roth-McDuffie, A. (2003, April). *Preservice elementary teachers' retention of appropriate NOS conceptions*. Paper presented at the annual meeting of the American Educational Research Association, Chicago, IL.
- Morrison, J. A., Roth-McDuffie, A., & Akerson, V. L. (2003, April). *Preservice teachers' development and implementation of science performance assessment tasks*. Paper presented at the annual meeting of the American Educational Research Association, Chicago, IL.
- +Akerson, V. L., Reiff, R., Morrison, J. A., Hanuscin, D., Shymansky, J. A., Yore, L. D. (2003, January). *Issues associated with using student science journals with K-6 students*. Paper presented at the annual meeting of the Association for the Education of Teachers in Science, St. Louis, MO.
- +Akerson, V. L., & Hanuscin, D. (2003, January). *Learning science by inquiry: An elementary teacher enhancement project*. Paper presented at the annual meeting of the Association for the Education of Teachers in Science, St. Louis, MO.
- +Comerford, J., Green, A., Hollinger, K., Rooney, M. Hanuscin, D., & Akerson, V. L. (2003, February). *Adapting curricula to focus on inquiry—What works?* Paper presented at the annual meeting of the Hoosier Association for Science Teaching, Inc., Indianapolis, IN.

- +Akerson, V. L., Abd-El-Khalick, F.S., & Banning, T. (2002, April). *Teaching elements of nature of science: A year long case study of a fourth grade teacher*. Paper presented at the annual meeting of the American Educational Research Association, New Orleans, LA.
- +Akerson, V. L., Abd-El-Khalick, F. S., & Banning, T. (2002, April). *A study of a fourth grade teacher's effort to teach nature of science*. Paper presented at the annual international meeting of the National Association for Research in Science Teaching, New Orleans, LA.
- Roth McDuffie, A., Morrison, J., & Akerson, V. L. (2002, April). *Preservice teachers designing and using performance assessment in an elementary mathematics methods course*. Paper presented at the annual meeting of the National Council of Teachers of Mathematics, Las Vegas, NE.
- Akerson, V. L., & Roth-McDuffie, A. (2002, January). *The elementary science teacher as researcher*. Paper presented at the annual international meeting of the Association for the Education of Teachers in Science, Charlotte, NC. The paper from this presentation was published in P. Rubba, J. Rye, W. DiBiase, & B. Crawford, (Eds.) *Proceedings of the 2002 International Conference of Association for the Education of Teachers in Science*. (Eric Document Reproduction Number ED 465 602)
- +Nixon, D., & Akerson, V. L. (2002, January). *Building bridges: Using science as a tool to teach reading and writing*. Paper presented at the annual international meeting of the Association for the Education of Teachers in Science, Charlotte, NC. The paper from this presentation was published in P. Rubba, J. Rye, W. DiBiase, & B. Crawford, (Eds.) *Proceedings of the 2002 International Conference of Association for the Education of Teachers in Science*. (Eric Document Reproduction Number ED 465 602)
- +Morrison, J., Akerson, V. L., & Roth McDuffie, A. (2002, January). *A focus for collaboration: Developing and implementing science and mathematics performance assessment tasks*. Paper presented at the annual international meeting of the Association for the Education of Teachers in Science, Charlotte, NC. The paper from this presentation was published in P. Rubba, J. Rye, W. DiBiase, & B. Crawford, (Eds.) *Proceedings of the 2002 International Conference of Association for the Education of Teachers in Science*. (Eric Document Reproduction Number ED 465 602)
- Akerson, V. L. (2002, January). *State requirements: The good, the bad, and the ugly*. Paper presented at the annual international meeting of the Association for the Education of Teachers in Science, Charlotte, NC.
- Akerson, V. L., Morrison, J., & Roth-McDuffie, A. (2002, January). *Performance assessment in science methods: A Description of a program*. Paper presented at

- the annual international meeting of the Association for the Education of Teachers in Science, Charlotte, NC.
- Lederman, N. G., Abd-El-Khalick, F. S., Bell, R. L., Schwartz, R. S., & Akerson, V. L. (2001, November). *Assessing understandings of the nature of science: Development and use of the views of nature of science (VNOS) questionnaire*. Paper presented at the annual international of the History and Philosophy of Science Teaching, Denver, CO.
- Akerson, V. L., Medina, V. F., & Wang, N. (2001, March). *Navigating the balance between teaching and research: A case study of an environmental engineering professor*. Paper presented at the annual meeting of the National Association for Research in Science Teaching, St. Louis, MO.
- Lederman, N. G., Abd-El-Khalick, F. S., Bell, R. L., Schwartz, R. S., & Akerson, V. L. (2001, March). *Assessing the unassessable: Views of nature of science questionnaire (VNOS)*. Paper presented at the annual meeting of the National Association for Research in Science Teaching, St. Louis, MO.
- Akerson, V. L., Medina, V. F., & Wang, N. (2001, January). *Improving university science and engineering instruction: A case study of an environmental engineering lab course*. Paper presented at the annual meeting of the Association for the Education of Teachers in Science, Costa Mesa, CA. The paper from this presentation was published in P. Rubba, J. Rye, W. DiBiase, & B. Crawford (Eds.) *Proceedings of the 2001 Annual International Conference of the Association for the Education of Teachers in Science*. 1529-1551. Pensacola, FL: Association for the Education of Teachers in Science.
- Akerson, V. L., Roth McDuffie, A., & Morrison, J. A. (2001, January). *The bridges project: Pairing preservice and inservice teachers for professional development in science, math, and literacy using performance assessment tasks as contexts*. Paper presented at the annual meeting of the Association for the Education of Teachers in Science, Costa Mesa, CA. The paper from this presentation was published in P. Rubba, J. Rye, W. DiBiase, & B. Crawford (Eds.) *Proceedings of the 2001 Annual International Conference of the Association for the Education of Teachers in Science*. 929-954. Pensacola, FL: Association for the Education of Teachers in Science.
- +Bohrmann, S., & Akerson, V. L., (2001, January). *Improving girls' self-efficacy toward science*. Paper presented at the annual meeting of the Association for the Education of Teachers in Science, Costa Mesa, CA
- +Stine, E. O., & Akerson, V. L. (2001, January). *Determining how to use graphic organizers in a sixth grade science classroom*. Paper presented at the annual meeting of the Association for the Education of Teachers in Science, Costa Mesa, CA.

+Liu, Z., & Akerson, V. L. (2001, January). *Science and language links*, Paper presented at the annual meeting of the Association for the Education of Teachers in Science, Costa Mesa, CA. The paper from this presentation was published in P. Rubba, J. Rye, W. DiBiase, & B. Crawford (Eds.) *Proceedings of the 2001 Annual International Conference of the Association for the Education of Teachers in Science*. 326-390. Pensacola, FL: Association for the Education of Teachers in Science.

Roth McDuffie, A., Akerson, V. L., & Morrison, J. (2001, January). *Designing and implementing meaningful field-based experiences for mathematics methods courses: A program description*. Paper presented at the annual meeting for the Association of Mathematics Teacher Educators Annual Conference, Costa Mesa, CA: Association of Mathematics Teacher Educators.

Morrison, J. A., & Akerson, V. L. (2001, October). *Using performance assessment tasks in science*. Paper presented at the annual meeting of the Washington Science Teachers Association, Yakima, WA.

Akerson, V. L., & Abd-El-Khalick, F. S. (2000, April). *The influence of conceptual change teaching in improving preservice elementary teachers' conceptions of the nature of science*. Paper presented at the annual meeting of the American Educational Research Association, New Orleans, LA.

Akerson, V. L., & Abd-El-Khalick, F. S. (2000, April) *Using conceptual change teaching strategies to help preservice elementary teachers improve their conceptions of the nature of science*. Paper presented at the annual meeting of the National Association for Research in Science Teaching, New Orleans, LA.

Akerson, V. L., & Abd-El-Khalick, F. S. (2000, January). *Improving preservice elementary teachers' conceptions of the nature of science using a conceptual change teaching approach*. Paper presented at the annual international meeting of the Association for the Education of Teachers in Science, Akron, OH. The paper from this presentation was published in P. Rubba, & J. Rye (Ed.), *Proceedings of the 2000 Annual International Conference of the Association for the Education of Teachers in Science*. Pensacola, FL: Association for the Education of Teachers in Science. (ERIC Document Reproduction Service No. ED 438 191)

+Akins, A. & Akerson, V. L. (2000, January). *Connecting science, social studies, and language arts: An interdisciplinary approach*. Paper presented at the annual international meeting of the Association for the Education of Teachers in Science, Akron, OH. The paper from this presentation was published in P. Rubba, & J. Rye (Ed.), *Proceedings of the 2000 Annual International Conference of the Association for the Education of Teachers in Science*. Pensacola, FL: Association for the Education of Teachers in Science. (ERIC Document Reproduction Service No. ED 438 191)

+Kelso, R., & Akerson, V. L., (2000, January). *Math connections: Science and engineering applications in an elementary classroom*. Paper presented at the annual international meeting of the Association for the Education of Teachers in Science, Akron, OH. The paper from this presentation was published in P. Rubba, & J. Rye (Ed.), *Proceedings of the 2000 Annual International Conference of the Association for the Education of Teachers in Science*. Pensacola, FL: Association for the Education of Teachers in Science. (ERIC Document Reproduction Service No. ED 438 191)

Akerson, A. W., Akerson, V. L., Anderson, K., & Kasenga, S. (2000, October). *Future cities: An interdisciplinary project to meet a variety of state standards*. Presentation at the annual meeting of the Washington Science Teachers Association, Vancouver, WA.

Hatch, L., Akerson, V. L., & Norman, O. (and many students) (2000, October). *Systems of learning: Teaching the common themes of science*. Presentation at the annual meeting of the Washington Science Teachers Association, Vancouver, WA.

Dickinson, V. L., & Flick, L. B. (1999, March). *Talking about teaching: Student perspectives of science, K-8*. Paper presented at the annual meeting of the National Science Teachers Association, Boston, MA.

Dickinson, V. L., Abd-El-Khalick, F. S., & Lederman, N. G. (1999, January). *Changing elementary teachers' views of the nature of science: Effective strategies for science methods courses*. Paper presented at the annual meeting of the Association of the Education of Teachers in Science, Austin, TX. The paper from this presentation was published in P. Rubba, & J. Rye (Ed.), *Proceedings of the 1999 Annual International Conference of the Association for the Education of Teachers in Science*. (pp.673-703). Pensacola, FL: Association for the Education of Teachers in Science. (ERIC Document Reproduction Service No. ED 431626)

+Wright, A. F., & Dickinson, V. L. (1999, January) *Integrating technology into the science classroom*. Paper presented at the annual meeting of the Association of the Education of Teachers in Science, Austin, TX. The paper from this presentation was published in P. Rubba, & J. Rye (Ed.), *Proceedings of the 1999 Annual International Conference of the Association for the Education of Teachers in Science*. (pp.501-532). Pensacola, FL: Association for the Education of Teachers in Science. (ERIC Document Reproduction Service No. ED 431626)

+Pringle, R. L., & Dickinson, V. L. (1999, January). *Classroom learning activities that generate the most participation in middle school science*. Paper presented at the annual meeting of the Association of the Education of Teachers in Science, Austin, TX. The paper from this presentation was published in P. Rubba, & J. Rye (Ed.), *Proceedings of the 1999 Annual International Conference of the Association for the Education of Teachers in Science*. (pp.945-978). Pensacola,

- FL: Association for the Education of Teachers in Science. (ERIC Document Reproduction Service No. ED 431626)
- Akerson, V. L., & Wang, N. (1999, October). *Making Use of our Satellites: Using GPS and GIS in the Science and Technology Classroom*. Paper presented at the annual meeting of the Washington Science Teachers Association, Spokane, WA.
- Dickinson, V. L., & Flick, L. B. (1998, October). *Talking about teaching: Student perspectives of science, K-8*. Paper presented at the regional meeting of the National Science Teachers Association, Seattle, WA.
- Dickinson, V. L., Flick, L. B., & Lederman, N. G. (1998, April) *The influence of young children's ideas in science on teaching practice*. Paper presented at the annual meeting of the National Association for Research in Science Teaching, San Diego, CA.
- Dickinson, V. L., Flick, L. B., & Lederman, N. G. (1998, January) *Student and teacher conceptions about astronomy: Influences on changes in their ideas*. Paper presented at the annual meeting of the Association of the Education of Teachers in Science, Minneapolis, MN. The paper from this presentation was published in P. Rubba, & J. Rye (Ed.), *Proceedings of the 1998 Annual International Conference of the Association for the Education of Teachers in Science*. (pp.120-146). Pensacola, FL: Association for the Education of Teachers in Science. (ERIC Document Reproduction Service No. ED 421363)
- Wieseman, K., Dickinson, V. L., Wang, H., Bryan, L., Kemp, A, Roscoe, B. (1998, January). *Extending our networking and professional development as science teacher educators and researchers: A forum by and for graduate students*. Paper presented at the annual meeting of the Association of the Education of Teachers in Science, Minneapolis, MN. The paper from this presentation was published in P. Rubba, & J. Rye (Ed.), *Proceedings of the 1998 Annual International Conference of the Association for the Education of Teachers in Science*. (pp.643-665). Pensacola, FL: Association for the Education of Teachers in Science. (ERIC Document Reproduction Service No. ED 421363)
- Dickinson, V. L. (1998, November). *Northwest AETS: How it can support you in science teacher education*. Paper presented at the fall meeting of OCEPT (Oregon Collaborative for Excellence in the Preparation of Teachers) Keynote speech, invited presentation, Lewis and Clark College.
- +Dickinson, V. L., & Fouad, D. H. (1998, November). *Science Rocks! A preservice teacher's perspective of what she needs to know to be an effective elementary science teacher*. Paper presented at the fall meeting of OCEPT (Oregon Collaborative for Excellence in the Preparation of Teachers) Lewis and Clark College.

Dickinson, V. L., & Flick, L. B. (1997). *Children's ideas in science: How do student and teacher perspectives coincide?* Paper presented at the annual meeting of the National Association for Research in Science Teaching, Chicago, IL, March.

Flick, L. B., & Dickinson, V. L. (1997). *Teacher intentions, teaching practice, and student perceptions of inquiry-oriented teaching.* Paper presented at the annual meeting of the National Association for Research in Science Teaching, Chicago, IL, March.

Flick, L. B., & Dickinson, V. L. (1997). *More on conducting and assessing hands-on, inquiry-oriented science instruction.* Paper presented at the annual meeting of the National Science Teachers Association, New Orleans, LA, April.

+Dickinson, V. L., & Reinkens, K. A. (1997, January). *Mr. Reinkens' neighborhood: Can you say 'conceptual change'?* Paper presented at the annual international meeting of the Association for the Education of Teachers in Science, Cincinnati, OH. The paper from this presentation was published in P. Rubba, P. Keig, & J. Rye (Ed.), *Proceedings of the 1997 Annual International Conference of the Association for the Education of Teachers in Science* (pp. 619-639). Pensacola, FL: Association for the Education of Teachers in Science. (ERIC Document Reproduction Service No. ED 405 220)

Flick, L. B., Dickinson, V. L., & Lederman, N. G. (1997, January). *Comparing teaching practice with student outcome knowledge: An assessment of mid-level constructivist learning environments.* Paper presented at the annual international meeting of the Association for the Education of Teachers in Science, Cincinnati, OH. The paper from this presentation was published in P. Rubba, P. Keig, & J. Rye (Ed.), *Proceedings of the 1997 Annual International Conference of the Association for the Education of Teachers in Science* (pp. 298-325). Pensacola, FL: Association for the Education of Teachers in Science. (ERIC Document Reproduction Service No. ED 405 220)

Dickinson, V. L. (1997). *Electricity Lights Up Our World.* Saturday Academy, Oregon State University, Corvallis, OR.

Lederman, N. G., Bell, R. L., & Dickinson, V. L. (1997). *Seeing is not believing: Nature of science.* SMILE Middle School Challenge Weekend, Oregon State University, Corvallis, OR.

Dickinson, V. L. (1996, April). *Oil and water don't mix--what about science and language arts?* Paper presented at the annual meeting of the National Association for Research in Science Teaching, St. Louis, MO.

Flick, L. B., & Dickinson, V. L., (1996, March). *Conducting and assessing hands-on inquiry oriented science instruction for grades 5-10.* Paper presented at the annual meeting of the National Science Teachers' Association, St. Louis, MO.

- Flick, L. B., Bell, R., & Dickinson, V. L. (1996, March). *Inquiry teaching K-12*. Paper presented at the annual meeting of the National Science Teachers' Association, St. Louis, MO.
- +Dickinson, V. L., Flanigan, J. (1996, January). *Teaching and learning science methods a language arts methods course*. Paper presented at the international meeting of the Association for the Education of Teachers in Science, Seattle, WA. The paper from this presentation was published in P. Rubba, P. Keig, & J. Rye (Ed.), *Proceedings of the 1996 Annual International Conference of the Association for the Education of Teachers in Science* (pp. 562-579). Pensacola, FL: Association for the Education of Teachers in Science. (ERIC Document Reproduction Service No. ED 398 060)
- Dickinson, V. L., Burns, J., Hagen, E. R., Locker, K. M. (1996, January). *Promoting primary science*. Paper presented at the international meeting of the Association for the Education of Teachers in Science, Seattle, WA. The paper from this presentation was published in P. Rubba, P. Keig, & J. Rye (Ed.), *Proceedings of the 1996 Annual International Conference of the Association for the Education of Teachers in Science* (pp. 323-344). Pensacola, FL: Association for the Education of Teachers in Science. (ERIC Document Reproduction Service No. ED 398 060)
- Dickinson, V. L., & Scholz, J. M. (1996, October). *Electricity ignites math: Like the Energizer Bunny the ideas keep going, and going, and going...* Workshop presented at the 35th Northwest Math Conference, Portland, OR.
- Dickinson, V. L., & Flick, L. B. (1995, April). *Beating the system: Confronting student behaviors that inhibit conceptual understanding of introductory college physics*. Paper presented at the annual meeting of the National Association for Research in Science Teaching, San Francisco, CA.
- Dickinson, V. L. (1995, November). *Centered around science*. Invited paper presented at Conversations: Washington State University Faculty Development Programs for Teaching Assistants, Staff and Faculty, Pullman, WA.
- Dickinson, V. L. (1995, November). *Making time for science*. Paper presented at the annual meeting of the Washington Science Teachers Association, Pullman, WA.
- Dickinson, V. L. (1995, October). *The best of both worlds: Enhancing science teaching through language arts*. Paper presented at the meeting of the Oregon Educational Research Association, Corvallis, OR.
- Dickinson, V. L. (1995, March) *What's the matter, Bartholomew?* Paper presented at the Washington Science Teachers Association Conference, Wenatchee, WA.

Dickinson, V. L., & Flick, L. B. (1994, October) *Learning physics: View from the second tier*. Paper presented at the National Science Teachers Association Conference, for Association for the Education of Teachers in Science program, Portland, OR.

Dickinson, V. L. (1993, November) *Children's ideas and inquiry method*. Paper presented at the Washington Science Teachers Association Conference, Everett, WA.

Professional Development Workshops. During my career I have been invited to present a variety of science education topics at workshops designed for inservice teachers.

- 2017-2019 “Science the ‘Write’ Way” Workshops at Indiana University for K-12 teachers.

- 2010 Using Children's Literature to Launch Science Lessons. Professional Development program for Preschool Teachers at Wonderlab, Bloomington, IN.

- 2006 *Action Research in the service of K-6 NOS Instruction*. Invited presentation for K-6 teachers at University Elementary School. February

- 2005 *A new view of science: Introduction to the Nature of Science*. Invited workshop for K-12 teachers of the Monroe County School Corporation, January.

- 2004 *Introduction to the Nature of Science*. Invited workshop for K-6 teachers at Rogers Elementary School, Bloomington, IN.

- 2001 Inquiry Teaching Workshop, Arlington Heights Elementary. Debi Hanuscin (Ph.D. candidate) was lead instructor for this invited workshop the summer prior to the start of my position at IU.

- 2000 Inquiry Teaching Workshop, Prosser School District, Washington

- 1999 *Making time for science: Literacy and science essential academic learning requirements and meeting them both*. Pasco School District, Washington

- 1998 Elementary Science Education Workshops, Pasco School District, Pasco, WA

- 1996 Presented a workshop on inquiry learning and magnetism and electricity for K-2 elementary teachers, Tigard School District, Oregon

- 1996 Presented workshop on cooperative learning and buoyancy for K-2 elementary teachers, Tigard School District, Oregon

- 1996 Presented workshop on direct instruction, light and reflection for K-2 elementary teachers, Tigard School District, Oregon
- 1995 Assisted with Integrating Science Concepts, NSF Grant-funded Workshop for Elementary Teachers, Eugene 4J School District, Oregon,
- 1995 Presented a session of an Environmental Literacy Workshop to scientists, "What's the Matter, Bartholomew? Lessons from K-12 Science Education." Washington State University, Pullman

Service

Editorial Boards

Editor for *International Journal of Science Education*. 2021 to present

Editor for *International Journal of Technology in Education & Science* 2019 to present

Editorial Board Member for *Action Research and Innovation in Science Education* 2019 to present

Associate Editor, *Journal of Research in Science Teaching*, 2015-2020. Responsibilities include reading manuscripts and corresponding reviews and making recommendations to the journal editors.

Associate Editor, *Journal of Science Teacher Education*. (2008-2018). Responsibilities include reading manuscripts and corresponding reviews and making recommendations to the journal editors.

Editorial Board, *Journal of Research in Science Teaching* (2002-2007) Responsibilities include reviewing research manuscripts and theoretical position statements submitted and making recommendations to the editors for publication in the *Journal of Research in Science Teaching*.

Senior Reviewer: *Journal of Research in Science Teaching* (1998-2002) Responsibilities include reviewing research manuscripts and theoretical position statements submitted for publication in the *Journal of Research in Science Teaching*, the official journal of the National Association for Research in Science Teaching.

Editorial Board, *Science Education* (2003-2006). Responsibilities include reviewing research manuscripts and theoretical position statements submitted for publication in *Science Education*, and making recommendations to the editors.

Editorial Board, *Journal of Elementary Science Education* (2000-present)
Responsibilities include reviewing research manuscripts and theoretical position statements concerning the preparation and inservice education of science teachers submitted for publication in the *Journal of Elementary Science Education*, an Association for the Education of Teachers in Science sponsored journal.

Associate Editor, *School Science and Mathematics*. (1997-2001)
Responsibilities include upholding the quality of the journal through reviewing split decisions concerning submitted manuscripts from regular reviews and making recommendations to the Editors toward final decisions on such manuscripts.

Invited to be a reviewer for a special issue of *International Journal of Science and Mathematics Education* on language, mathematics, and science literacy (2006).
Responsibilities include reviewing manuscripts for inclusion in the special topical issue of the journal.

Reviewer, *School Science and Mathematics*. 1995-1997
Responsibilities include reviewing research manuscripts submitted for publication in *School Science and Mathematics Journal* in the field of science education.

Reviewer, *Science and Children*. 1997—present
Responsibilities include reviewing manuscripts submitted for publication in *Science and Children*, the “Teaching teachers” column that features articles of a practical nature about methods and issues concerning the education of preservice and inservice science teachers.

Reviewer, *International Journal of Science and Mathematics Education*. 2005-present
Responsibilities include reviewing manuscripts submitted for publication in *The International Journal of Science and Mathematics Education* and making recommendations for acceptance or rejection, or for writing support.

Reviewer, *International Journal of Science Education*, 2006-present
Responsibilities include reviewing manuscripts submitted for publication in *The International Journal of Science Education* and making recommendations for acceptance or rejection, or for writing support.

Associate Editor, *Journal of Science Teacher Education*, 2008-present
Responsibilities include monitoring reviews provided by manuscript reviewers and making final recommendations to the journal editors.

Editorial Board Member, *Journal of Science Teacher Education*. 2003-2008
Responsibilities include reviewing manuscripts submitted for publication in *Journal of Science Teacher Education*, the official journal of The Association for the Education of Teachers in Science.

Reviewer, *Transactions*, 2005-present.
Responsibilities include reviewing manuscripts submitted for publication in *Transactions*, the international journal of IPSI.

Reviewer, *Teachers College Record* 2002-present
Responsibilities include reviewing research manuscripts submitted for publication in *Teachers College Record* in the field of education.

Book Reviewer

Science Books and Films (2001-present)
Responsibilities include reading new science books, and reviewing new films and videotapes, and writing written critiques of the media for AAAS Science Books and Films newsletter.

Teachers College Record, invited to review *A Vision for Science Education* by Roger Cross, review published 8-8-03 <http://www.tcrecord.org>

Teachers College Record, invited to review *Teaching Science for Social Justice* by Angela Calabrese Barton, review published 1/30/04
<http://www.tcrecord.org>

Sage Publications, invited to review proposed textbook *History of Science for Teachers: The Construction and Reconstruction of Scientific Concepts*. 2003

Handbook of Research on Science Education, invited to review and provide feedback for the chapter “Elementary Science Teaching.” Review completed 3/24/04.

National Research Foundation/Research and International Support and Administration Reviews

Reviewer on the Education panel for this foundation in South Africa.

National Science Foundation Reviews

Reviewer, NSF proposal “Exploring the Impact of Specialists on Science Learning at the Elementary Level: A Conference. (Feb. 2006)

Reviewer, NSF proposal “Collaborative Education and Outreach for Yellowstone Hotspot EarthScope Activities” (Sept. 2006).

Conference Proposal Reviews

Reviewer, NARST, Portland, OR (2020)

Reviewer, NARST, Baltimore, MD (2019)

Reviewer, ASTE, Savannah, GA (2018)

Reviewer, NARST, Portland (2019)

Reviewer, NARST, San Antonio, TX (2016)

Reviewer ASTE Des Moines, Iowa (2016)

Reviewer, NARST, Baltimore, MD, (2015)

Reviewer, National Association for Research in Science Teaching, Puerto, Rico (2012)

Reviewer, Association for Science Teacher Education, Charleston, NC (2012)

Reviewer, National Association for Research in Science Teaching, Indianapolis, IN (2011)

Reviewer, National Association for Research in Science Teaching, Orlando, FL (2010).

Reviewer, National Association for Research in Science Teaching, Philadelphia, PA (2009).

Reviewer, National Association for Research in Science Teaching, Baltimore, MD (2007)

Reviewer, Association for Science Teacher Educators (ASTE) ST Louis, MO (2007)

Reviewer, International Conference of the Learning Sciences, Bloomington, IN (2006)

Reviewer, Strand 4, Inservice Teacher Professional Development. National Association for Research in Science Teaching Conference, San Francisco, CA (2006)

Reviewer, Association for Science Teacher Educators (ASTE) Portland, OR (2006)

Reviewer, IPSI-2005 Spain Conference, Barcelona.

Reviewer, Strand 2, Learning: Classroom Contexts and Learner Characteristics. National Association of Research in Science Teaching, Dallas, TX (2005).

Reviewer, Association for the Education of Teachers in Science (AETS)

conference, 2003.

Reviewer, Section 1a: Teaching, teacher education, and teacher learning in math and science; Division K: Teaching and Teacher Education. Annual meeting of the American Educational Research Association, Chicago, IL 2003.

Reviewer, Strand 1: Conceptual Change. National Association of Research in Science Teaching, New Orleans, LA 2002.

Reviewer, Strand 2: Learning: Classroom Contexts and Learner Characteristics. National Association of Research in Science Teaching, New Orleans, LA, 2002.

Reviewer, Strand 8: History and Philosophy of Science, National Association for Research in Science Teaching. New Orleans, LA 2002.

Reviewer, Section 1a: Teaching, teacher education, and teacher learning in math and science; Division K: Teaching and Teacher Education. Annual meeting of the American Educational Research Association, New Orleans, LA, 2002.

Reviewer for National Association for Research in Science Teaching Strand 1 & 2 Learning: Classroom Contexts and Learner Characteristics 2001 conference proposals.

Reviewer for National Association for Research in Science Teaching Strand 1 & 2 Learning: Classroom Contexts and Learner Characteristics 2000 conference proposals.

Reviewer, Action Research Special Interest Group proposals for 1999 Annual Meeting of the American Educational Research Association.

Reviewer, paper presentation proposals for Association for the Education of Teachers in Science 1997 Conference, July 1996.

Presider/Discussant Roles

Presider for NARST, Strand 13: History, Philosophy, and Sociology of Science: Elementary Students' and Teachers' Views of Science, Scientific Inquiry, and Socioscientific Issues. April, 2017 San Antonio, TX.

Presider for Association for Science Teacher Education: Curriculum, Pedagogy, and Assessment session. January, 2017 Des Moines, I.

Discussant for New Scholars Symposium "Teaching and Learning Science in Diverse Contexts—Local and Global Perspectives, National Association for Research in Science Teaching, Indianapolis, IN, March 2012.

Presider, National Association for Research in Science Teaching, Baltimore, MD, April 2008.

Discussant, National Association for Research in Science Teaching, New Orleans, LA, April 2007.

Presider, Association for Science Teacher Education, Clearwater, FL. January 2007.

Presider, National Association for Research in Science Teaching, Vancouver, BC, April 2004.

Discussant: National Association for Research in Science Teaching, New Orleans, LA, 2002.

Presider for the March 2001 National Association for Research in Science Teaching, St. Louis, MO.

Presider/Discussant for March 1999 National Association for Research in Science Teaching, Boston, MA.

Presider/Discussant, Annual meeting of National Association of Research in Science Teaching, April 1998, San Diego, CA

Presider, Annual meeting of the National Science Teachers' Association, April 1998, Las Vegas, NV.

Presider, International Meeting of the Association for the Education of Teachers in Science, January 1997, Cincinnati, Ohio.

Presider, International Meeting of the Association for the Education of Teachers in Science, January 1996, Seattle, Washington.

Service to Field

Editor for International Journal of Technology in Education & Science

Content Adviser for 6th and 5th grade physical science books for Scholastic/Children's Press: Topics were: Electricity and Magnetism, Energy, Gravity, Light, Matter, and Sound. (2018)

Served as external reviewer for two full professor and two associate professor promotion cases (2020)

Served as external for two full professor and two associate professor promotion cases (2019)

Served as external reviewer for two full professor cases (2018)

Served as external reviewer for full professor and tenure case for AUB (2017)

Served as external reviewer for two full professor cases (2016)

Served as external reviewer for two full professor and two associate professor cases (2015)

Served as external reviewer for three associate professor cases and two full professor promotion cases (2013)

Served as content specialist for book series by Abby Colich on Exploring Materials (2013)

Served on review committee for pre-proposals for The Knowles Science Teaching Fellowship Scholars Program (2007, 2008, 2009).

Served as external reviewer for full professor cases of two faculty members in science education (2012)

Served as external reviewer for promotion to Associate Professor cases of two faculty members in science education (2012).

Served as external reviewer for tenure and promotion case (2011)

Served as external reviewer for tenure and promotion case. (2009)

Served as external reviewer for tenure and promotion case (2007).

Served as external reviewer for tenure and promotion case (2007).

Served as external reviewer for tenure case (2006).

Ph.D. Committee member for Nader Wahbeh, student at University of Illinois, Urbana, Champaign

Service to Professional Organizations

Committee member Distinguished Contributions through Research Award
Committee for National Association for Science Teaching 2021-2024

Committee member of the NARST Executive Director Search Committee 2021

Past President for Association of Science Teacher Education January 2020 to January 2021 (elected)

Chair of Oversight Committee, Association of Science Teacher Education, January 2020-January 2021

President for Association of Science Teacher Education January 2019 to January 2020 (elected)

President Elect for ASTE (January, 2018 to January 2019) (elected)

Co-Chair Memberships and Election Committee, NARST (end 2016)

Chair, Organizational and Internal Policy Committee, NARST (end 2016)

National Association for Research in Science Teaching (NARST) President-Elect, President, Past President (elected position) 2013-2016 (elected)

NARST 2015 Conference Program Chair

Chair of Organizational and Internal Policy Committee, NARST (2015)

Ex-Officio member of NARST Equity and Ethics Committee 2015

Ex Officio member of NARST External Policy and Relations Committee 2015

Ex Officio member of NARST International Committee 2015

Co-Chair of NARST Membership and Elections Committee 2015

Ex Officio member of NARST Publications Advisory Committee 2015

Ex Officio member of NARST Research Committee 2015

Ex Officio member of NARST Awards Committee 2015

Association of Science Teacher Education (ASTE) Board of Directors (elected position) 2012-2015.

Member of Search Committee for new editorial team for *Journal of Research in Science Teaching*. (2013-2014)

Co-Chair of the Publications Committee, Association of Science Teacher Education (ASTE) 2012-2015.

National Association for Research in Science Teaching (NARST) Board of Directors (elected position) 2007-2010

Chair Equity and Ethics Committee, National Association for Research in Science Teaching (NARST). 2007-2010.

Co-Chair of *Journal of Research in Science Teaching* Outstanding Paper Award Committee (NARST) 2006.

Member of *Journal of Research in Science Teaching* Outstanding Paper Award Committee (NARST) 2005-

Member of Membership and Elections Committee, National Association for Research in Science Teaching (NARST) 2004-2005.

Elected to Board of Directors, Council of Elementary Science International (CESI). 2004-2006

Strand Co-coordinator for Strand 2: Learning: Classroom Contexts and Learner Characteristics, National Association for Research in Science Teaching, 2003-2004.

Northwest Regional Director of the *Association for the Education of Teachers in Science* (International organization). Elected position 1997-2001.

Responsibilities included setting up a listserv to facilitate regional conversations, organizing regional meetings at the annual AETS meetings, and attending board meetings.

Committee Member: Financial Advisory Committee, *National Association for Research in Science Teaching*, 2000-present.

Committee Member: Early Career Research Award, *National Association for Research in Science Teaching*. Three-year appointment (1999-2002)

Member of the Elementary Ad Hoc Committee for the Association for the Education of Teachers in Science. (1997-1999)

Member of Mentoring New Members Committee for 1997, Association for the Education of Teachers in Science.

Region 2 Representative (ESD 123) on Board of Directors of Washington Science Teachers Association. 1994-1997. Elected position.

Memberships in Professional Organizations

European Science Education Research Association (ESERA)

Association for Science Teacher Educators (ASTE)
Council for Elementary Science International (CESI)
The Honor Society of Phi Kappa Phi
Hoosier Association of Science Teachers Inc. (HASTI)
National Association for Research in Science Teaching (NARST)
National Science Teachers Association (NSTA)
Phi Delta Kappa Educational Society (PDK)
Psi Chi, National Honor Society in Psychology
School Science and Mathematics Association (SSMA)
American Association for the Advancement of Science (AAAS)

University

Faculty Advisor for Independent Council for Women 2017- present

Member of the Office of Vice Provost of Research Advisory Committee 2017

Member of Conflict of Interest Committee. 2017

Member of the 2017 Distinguished Faculty Research Lecture Award Selection Committee

Member of the 2016 Distinguished Faculty Research Lecture Award Selection Committee

Member of McNair Graduate Fellowship Diversity Recruitment Committee (2012-2013)

Member of Science and the Democratic Public Life Group through the Poynter Center (2005-present)

***School of Education
Indiana University***

Member of the Promotions and Tenure Committee 2020-present

Associate Chair for Curriculum and Instruction 2020-2021

Co-Chair of the Transition Committee in charge of melding LCLE and C & I

Third Year Review Committee for Dr. Gus Weltsek (2019)

External Review Committee member for Inquiry Doctoral Program (2019)

Served on Primary Committee for IST faculty member being considered for promotion to full professor (the department did not have sufficient faculty) (2019)

Space Committee Member (2016-2018)

Committee on Teaching 2017-current

Teacher Education Convenings 2019-present

Annual Review Working Group 2019-present (GSO)

Chair of DMAI Committee 2020 (for 2019 year)

Interim Associate Dean for Research and Development (2015-2017)

School of Education Promotion and Tenure Committee (2013-2015)

Faculty sponsor for visiting scholar Bing Wei (2015)

C & I Merit Review Committee (2013)

Chair, C & I Department Chair Search Committee (2012-2013)

Chair, Beechler Award Committee (2012-2013)

Graduate Studies Committee, member (2011-2013)

Mentor and faculty sponsor, undergraduate student Jaylee White (2012-2016)

Elementary Certification Masters Program (ECMP) Co-Coordinator (2011-current)

Director, Saturday Science Program (2005-2010)

Science Education Program Coordinator (2004-current)

Elementary Education Council Member (2006-current)

Served on third year review committee for Kate Baird (IUPUC) 2006-2007

Served on third year review committee for Meredith Park Rogers (IUB) 2009

Member Policy Council (2007-2009)

Chair, Policy Council (2008-2009)

Research and Development Committee (2007-2010)

- Member, Biology Education Search Committee (2006-2007)
- Chair, Science Education Search Committee (2005-2006)
- Chair of Graduate Studies Committee (2004-2005)
- Member, Graduate Studies Committee (2005-current)
- Served on Academic Standards Committee (2004-2006)
- Ad Hoc Curriculum and Instruction Committee on Inquiry (2005)
- Faculty Sponsor for visiting Korean scholar, Dr. Bobae Park (2005-2006)
- Alternate member of Policy Council (2005-current)
- Served on C & I Outstanding Dissertation Selection Committee (2004)
- Learning Sciences Search Committee member (2004-2005)
- Served as speaker at Winter 2003 School of Education Graduation Celebration
- Co-Chaired Committee on Teaching (2003-2004)
- Chaired Undergraduate Scholarship Selection Committee (2003-2004)
- Served on Carnegie Initiative on the Doctorate Committee (2003-2004)
- Served on Learning Sciences Search Committee (2003-2004)
- Served on Search Committee for Director of Campus View Childcare Center (2004)
- Organize Quest Saturday Science Program (2003-2004)
- Served on the 2002 Annual Report Review Committee (2003)
- Served on Secondary Science Education Search Committee, 2002-2003.
- Served on Undergraduate Scholarship Selection Committee, 2001-2004.
- Served on Committee on Teaching, 2001-2004

Washington State University

Co-organized Second Annual Washington State University, Tri Cities Student Research Symposium, April 13, 2000. Deborah Burke (with me as chair) won

Outstanding Graduate Student Research award (\$200 prize) and four other Teaching and Learning students garnered honorable mention prizes (\$25 gift certificates): Michelle Bohrman (me as chair), Sarah Dahlagher (me as committee member), Amy Scovil (me as committee member) and EdM student Robin Lindenmeier (me as chair).

Co-organized First Annual Washington State University Tri Cities Student Research Symposium, April 15, 1999. Three Teaching and Learning Students won honorable mention prizes (\$25 gift certificates): Amy Akins, Lana Krumwiede, Marie Noorani.

Member of the Student Academic Affairs Council 2000-2001

Strategic Planning Committee (College of Education), 2000-2001

Student Admissions Committee of the Department of Teaching and Learning (1997-2000)

Member of the Childcare Taskforce Committee (2000)

Served as engineering judge for the Mathematics Engineering Science Achievement (MESA) Logic and Engineering Competition, May 9, 2000.

Member of Science Education Boeing Endowed Professor Search Committee for Department of Teaching and Learning, January-May, 1999

Committee Member: Academic/Student Affairs Committee, WSUTC (1997-2000)

Chair of the College of Education Graduate Studies Committee, 1998-1999

Yakima Valley/Tri Cities MESA Center Director Search Committee Member, May 1998

Chair of the Westinghouse Scholarship Committee, WSUTC, May 1998

State

Indiana University

Proctor for Indiana Wesleyan University, 2002-2003

Secretary for the Hoosier Association for Science Teaching, Inc. 2003 conference.

Indiana University Representative for ISTEM: Indiana Science, Technology, Engineering, and Mathematics Education.

Washington State University

Served as the University Partner with Educational Service District (ESD) 123 for the Goals 2000 Grant submitted and received by the ESD for pairing inservice and preservice teachers in science education.

University member of the Richland School District LASER (Leadership and Assistance for Science Education Reform) team which combined teams from around the state for improvement in science education.

Hosted Region 2 (ESD 123) Luncheon at Washington Science Teachers 1995 Fall Conference, November 3-4, Pullman, Washington.

Hosted Region 2 (ESD 123) Luncheon at Washington Science Teachers 1995 Spring Conference, March 17-18, Wenatchee, Washington.

Oregon State University

External Evaluator of primary student knowledge in conjunction with NSF-funded Integrating Science Concepts Project, Eugene, 4J School District, Oregon. April-July 1996

Community

Washington State University

Presented electricity activities to elementary students at the after school daycare, Kindercare, 2001.

Member of Battelle's Fitzner/Eberhardt Award for Outstanding Contributions to Science and Engineering Education Selection Committee April 1999, May 2000.

Advisor for Finley School District's elementary science adoption, 1998-1999.

Member of the Advisory Committee for Technology (ACT) Kennewick School District, 1997-1998.

Hosted response group of teachers for Subject Advisory Committee in Science Essential Academic Learning Requirements. December 16, 1995, Richland, Washington.

Conducted math education research literature search for Central Valley School District, Greenacres, WA. April 1994.

Horne, J., Lutz, T., & Dickinson, V. L., Astronomy Workshop for inservice elementary teachers at Washington State University, Pullman. 8/94 to 12/94

Chair of elementary science committee in charge of defining new school science curriculum. Finley Elementary School, 1991-1992.

March 22, 2022

Valarie Akerson (Dickinson) 64