

# WALTER SCOTT SMITH

*Helen DeVitt Jones Professor  
Founder and Co-Director, Global PRiSE STEM Education PhD  
Department of Curriculum and Instruction  
College of Education*

## TEXAS TECH UNIVERSITY

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## EDUCATION

1965 - 67                      Indiana University, Bloomington, IN. PhD, 1973.  
1970 - 73                      Major: Science Education.  
  
1964 - 65                      Indiana University, Bloomington, IN. MEd, 1965.  
Major: Student Personnel.  
  
1960 - 64                      Cornell University, Ithaca, NY. BS, 1964.  
Major: Biology.

## EXPERIENCE

2006 -                      Texas Tech University, Department of Curriculum and Instruction  
Lubbock, TX.  
Helen DeVitt Jones Professor, 2006 - . Chairperson, 2006-2011.  
STEM Education Co-Coordinator, 2014 - 2016.  
  
1999 - 06                      Ball State University, Department of Biology, Muncie, Indiana.  
Professor and Director of Science and Science Education  
Doctoral Programs, 1999 - 2006.  
  
1994 - 99                      University of Akron, Department of Curricular and Instructional  
Studies, Akron, Ohio.  
Professor, 1994-99. Acting Department Chairperson, 1997-98.  
  
1972 - 94                      University of Kansas, Department of Curriculum and Instruction,  
Lawrence.  
Professor, 1985-94. Associate Professor, 1980-85.  
Assistant Professor, 1975-80.  
Department Chair, 1984-89. Ass't. Dept. Chair, 1980-84.  
Associate Dean of Women, 1972-75.  
Assistant Director, Pearson College, 1972-75.

## Experience, continued:

- 1990 Faculty of Applied Science. Swinburne Institute of Technology, Melbourne, Victoria, Australia. Visiting Professor, February to May 1990.
- Key Centre for Teaching and Research in School Science and Mathematics. Curtin University of Technology, Perth, Western Australia, Australia. Visiting Professor, February 1990.
- 1982 - 83 National Science Teachers Association, Washington, DC. Special Assistant to the Executive Director.
- 1970 - 72 Indiana University, Bloomington. Associate Instructor in methods of teaching science.
- 1968 - 69 University of Cincinnati, Cincinnati, Ohio. Lecturer in history of education (part-time).
- 1967 - 70 Oak Hills Public Schools, Cincinnati, Ohio. Science Teacher. Taught biology, general science, physical science, and chemistry.

AWARDS and HONORS

- 2003 Ohaus Award for Innovations in Teaching, National Science Teachers Association.
- 2002 Outstanding Mentor Award, Association for the Education of Teachers of Science.
- 1997 Outstanding Service Award, University of Akron College of Education.
- 1996 Presidential Award for Excellence in Science, Mathematics, and Engineering Mentoring, awarded at The White House. (One of first ten recipients of the award.)
- Outstanding Higher Educator, Phi Delta Kappa Akron Chapter.
- 1993 Citation for Distinguished Service to Science Education, National Science Teachers Association. (Awarded only after 25 years in the profession. Awarded during first year of eligibility.)
- 1991 Distinguished Faculty Achievement Award for Service, University of Kansas School of Education.
- 1984 Honorable Mention for American Educational Research Association Women Educators Curriculum Materials Award for COMETS Project.
- 1983 Nominated for President of the National Science Teachers Association.

## UNIVERSITY TEACHING

### Texas Tech University:

Founder and Co-Director, Online PhD in Curriculum and Instruction with Specialization in STEM Education known as Global PRiSE ([www.global.prise.org](http://www.global.prise.org)), 2012 – present.

Member of the graduate faculty, including right to chair doctoral dissertations, 2006 – present.

Graduate courses in global STEM education and STEM education research.

### Ball State University:

Member of the graduate faculty, including right to chair doctoral dissertations, 1999 – 2006.

Graduate and undergraduate courses in elementary and secondary science education, including:

- teaching methodology,
- current issues in science education,
- applying technology in science teaching,
- science education research methodology,
- doctoral research.

### University of Akron:

Member of the graduate faculty, including right to chair doctoral dissertations, 1994 - 99.

Graduate and undergraduate courses in elementary and secondary science education, including teaching methodology, student teacher supervision, current issues in science education, field experience, masters and doctoral research, 1994 - 99.

### University of Kansas:

Graduate and undergraduate courses in elementary, middle, and secondary science education, including teaching methodology, student teacher supervision, problems in science education, seminar in science education, field experience, masters and doctoral research, 1972-94. Undergraduate course in using microcomputers in the classroom, 1984-86. Graduate courses in gender equity, 1972-75, and analysis of teaching and learning, 1987-93.

## GRANT SUPPORTED RESEARCH and DEVELOPMENT

Project Director and Author of over two dozen federally, state and privately funded grants for \$3.2 million in teacher and/or science education:

### Middle Level Education:

Linking American and Australian Students as Co-Teachers in a Global Scientific Investigation. Funded by Ball State University's Global Media Network 2005-2006 for \$4306 to co-teach middle and upper elementary science teaching methods courses, using videoconferencing, with Australia Catholic University (ACU) and the University of Southern Queensland (USQ); and use Internet discussion groups for students at Ball State, ACU, USQ, Texas Tech University, Oklahoma State University, and Indiana University (IUPUI-Columbus campus) to engage in an extended scientific inquiry.

MOON: More Observations Of Nature. Funded by the National Aeronautics and Space Administration 2001-2002 for \$4000 to link elementary and middle school students from Alabama, Alaska, Indiana, New Mexico (Navajo Reservation) and Australia with preservice teachers at Ball State University to investigate the Moon and communicate via the Internet.

KS<sup>2</sup>CP: Kansas Space Science Connection Project. Funded by the Kansas Board of Regents 1994-1995 for \$51,958 to instruct fifth through eighth grade teachers in approximately 50 school districts in 17 counties in greater Kansas City and south central Kansas in space science and equity education.

KS<sup>2</sup>CP: Kansas Space Science Connection Project. Funded by the Kansas Board of Regents 1993-1994 for \$33,546 to instruct fifth and sixth grade teachers in approximately 25 school districts in 8 counties in greater Kansas City metropolitan area in space science and equity education.

KS<sup>2</sup>CP: Kansas Space Science Connection Project. Funded by the Kansas Board of Regents 1992-1993 for \$44,736 to instruct fifth and sixth grade teachers in approximately 40 school districts in 17 counties in greater Kansas City and south central Kansas in space science and equity education.

KCS<sup>2</sup>P: Kaw Corridor Space Science Project. Funded by the Kansas Board of Regents 1991-1992 for \$35,097 to instruct 120 fifth and sixth grade teachers in 29 schools districts in 8 counties in the greater Kansas City area in space science and equity education.

Project Director, continued:

COMETS: Career Oriented Modules to Explore Topics in Science. Funded by the TRW Foundation 1984-1987 for \$15,000 and \$16,000 for dissemination of COMETS and training of COMETS trainers.

COMETS: Career Oriented Modules to Explore Topics in Science. Funded by the Shell Companies Foundation 1984-1986 for \$4,000 and \$4,000 for further development and evaluation of science instructional materials for early adolescents, especially females.

COMETS: Career Oriented Modules to Explore Topics in Science. Funded by the Kansas Board of Regents 1984-1985 from Education for Economic Security Act funds for \$15,000 for in-service teacher training in the use of COMETS.

COMETS: Career Oriented Modules to Explore Topics in Science. Funded by the National Science Foundation 1982-1984 for \$30,000 for development and evaluation of science instructional materials for early adolescents, especially females.

COMETS: Career Oriented Modules to Explore Topics in Science. Funded by the National Science Foundation 1979-1982 for \$119,765 for initial development and evaluation of science instructional materials for early adolescents, especially females.

Elementary Science Education:

TIES: Technology and Invention in Elementary Schools. Funded by the National Science Foundation 1996-2000 for \$602,627 to train elementary teachers from Akron, Barberton, and Canton, Ohio, plus northern New Mexico Pueblo and Navajo schools. Submitted in cooperation with Inventure Place, Cuyahoga Valley Environmental Education Center, and four Fortune 500 businesses. For more information, go to <http://www2.uakron.edu/its/Ties/TOC/index.html>.

OPPS: Operation Primary Physical Science. Funded 1996-1999 by the East (Ohio) Regional Professional Development Center for \$4,000 to train K-3 teachers in Ohio to improve their physical science teaching.

TIES: Technology and Invention in Elementary Schools. Funded by the Ohio Space Grant Consortium 1995-1996 for \$2,500 to train 30 urban elementary teachers.

Use the Zoo Project. Funded by the Kansas Board of Regents 1994-1995 for \$33,000 to instruct first through sixth grade teachers in 18 school districts to use the Topeka Zoo as a science instructional resource.

Project Director, continued:

Use the Zoo Project. Funded by the Kansas Board of Regents 1993-1994 for \$31,918 to instruct first through sixth grade teachers in 12 school districts to use the Topeka Zoo as a science instructional resource.

Use the Zoo Project. Funded by the Kansas Board of Regents 1992-1993 for \$16,395 to instruct first through sixth grade teachers in 7 school districts to use the Topeka Zoo as a science instructional resource.

PALS: Principals for the Advancement of Leadership in Science. Funded 1989-1992 by subcontract for \$12,000 to the National Science Teachers Association to train elementary principals in Kansas, Missouri, New Mexico and Oklahoma to improve their schools' science programs.

Elementary Science Education Institute. Funded by the National Science Foundation 1979-1980 for \$30,206 for elementary teachers in grades 4-6 to increase their life and physical science knowledge and teaching skills.

Elementary Science Education Institute. Funded by the National Science Foundation 1978-1979 for \$27,093 for elementary teachers in grades 4-6 to increase their life and physical science knowledge and teaching skills.

Project BECOMING. Funded by the U.S. Office of Education 1976-1977 for \$57,729 for development of teacher education materials for elementary teachers.

Secondary Science Education:

Mentoring Science Teaching Majors into their Profession. Funded by Ball State University's Lilly II Program 2004-2005 for \$5490 to encourage students to remain in the secondary science teaching programs at Ball State University.

Equity Education:

Presidential Award for Excellence in Science, Mathematics, and Engineering Mentoring. Funded by the National Science Foundation 1996-1998 for \$10,000 and matched by \$10,000 from The University of Akron Provost's Office for mentoring activities. For more information about the award program, go to [http://www.nsf.gov/funding/pgm\\_summ.jsp?pims\\_id=5473&org=HRD&from=home](http://www.nsf.gov/funding/pgm_summ.jsp?pims_id=5473&org=HRD&from=home).

MASTERS: Math And Science TEACHERS for Reservation Schools. Funded by the National Science Foundation 1991-1994 for \$1,096,931 to train 140 elementary (K-9) science and math teachers for Native American schools.

Project Director, continued:

MASTERS: Math And Science TEachers for Reservation Schools. Funded by the National Science Foundation 1988-1990 for \$403,865 to train 70 elementary (K-9) science and math teachers for Native American schools.

NARN: Native American Research Network. Funded by the Spencer Foundation 2000-2002 for \$29,995 to develop and test culturally-relevant science teaching materials for Navajo and Pueblo students and improve classroom teaching skills of Native American teachers.

MOON: More Observations Of Nature. Funded by the Ball State University Diversity Associates Program 2000-2001 for \$1350 to establish links between BSU pre-service elementary teachers and Native American students.

Career Exploration Project for Talented High School Senior Women. Funded by the National Science Foundation 1974-1975 for \$12,740 for development of procedures to encourage talented women into traditionally male, professional science careers.

Conflict of Science Textbooks and Science Curriculum Goals. Funded 1984 by the Graduate Research Fund of the University of Kansas for \$3,446 to investigate textbooks in light of national curriculum standards.

Collegiate Science Education:

Science Teaching in Two Year Institutions. Funded by the Ball State University Office of Academic Research and Sponsored Programs 2000-2003 for \$1500 to study science teaching in two year institutions.

Education Director, federally funded grants in teacher education:

Equity Education:

Program to Improve Science and Math Teaching Skills of Elementary School Teachers of American Indians. Funded by the Bureau of Indian Affairs for varying amounts from \$60,315 to \$142,360 each year in 1985, 1986, 1987, 1989, 1990 and 1991 with an average of \$91,585 per year. Broadened to include elementary principals in 1990.

Co-Principal Investigator, federally funded grant in science education:

Science Education:

Partners Investigating Our Environment (PIE). Funded by the National Science Foundation's GK-12 Program 2003 - 2006 for \$1.4 million for ten graduate assistants to work with the Indianapolis Public Schools to improve science instruction, primarily via implementation of the GLOBE Project.

INTERNATIONAL ACTIVITIES

Founder and Co-Director of the Hybrid PhD in Curriculum and Instruction with Specialization in STEM Education Known as Global PRiSE with Students from China, Japan, Thailand, The Bahamas and 30 States of the United States plus the Territory of Guam.

Member, National Science Teachers Association International Advisory Board, 2015-2018.

Director, World MOON (More Observations Of Nature) Project to engage children internationally in collaborative science inquiry. Ball State University, 2000-2006; Texas Tech University, 2006 - . [www.worldmoonproject.org](http://www.worldmoonproject.org)

Co-presenter, "Preparation of Science Teachers in the United States," 2010 Sino-US Science Education Forum, Shanghai, China, November 2010.

Convener of the International Virtual STEM Classroom coalition of representatives of seven universities on three continents to develop techniques to facilitate international reform-based science, technology and mathematics instruction in grades K-12. The I.V. STEM Classroom coalition, begun in 2005, includes faculty from Texas Tech University, Ball State University, Oklahoma State University, Ohio State University, Indiana University – Purdue University at Columbus, Australian Catholic University, Shiga University (Japan) and others.

External Faculty, Australian Catholic University, Brisbane, Queensland, Australia, for the "Australian MOON Project," funded by the ASISTM (Australian School Improvement in Science Technology and Mathematics Project, 2006-2009, to implement the MOON Project in Queensland schools.

Member, National Science Teachers Association International Committee, 2006 – 07.

Visiting Scholar, University of Oulu, Finland, May 2004, through ETEN (European Teacher Education Network) to address technology in education issues.

Member, Editorial Advisory Board, Greater Access to Technology, Engineering and Science journal, 1994 - 98.



## International Activities, Continued

Developer of science education curriculum materials for use in Australian schools through Swinburne Institute of Technology, Melbourne, and Curtin University of Technology, Perth, February to May 1990.

Lecturer on women and science education to scientific staff of the Commonwealth Science and Industrial Research Organisation (CSIRO) laboratories in Perth, Adelaide, Melbourne, Canberra, Brisbane, and Sydney, Australia, February to May 1990.

Lecturer on American science education and women and science education to teachers in Sydney, Melbourne, Adelaide, Alice Springs, Brisbane, Canberra, and Perth, Australia, February to May 1990.

Invited keynoter for conference on women and science, Utrecht, Netherlands, and teacher workshops and faculty colloquia, Enschede and Endhoven, Netherlands, and London, England, November 1988.

Invited inaugural lecturer on women and science education at the Science Shop, Swinburne Institute of Technology, Melbourne, Australia, July 1988.

## NATIONAL PROFESSIONAL ASSOCIATION and GOVERNMENTAL AGENCY ACTIVITIES

Association for Science Teacher Education (ASTE)  
(Formerly the Association for the Education of Teachers in Science (AETS)):

Executive Secretary, 2003-2006.

Co-Chair, 2000 International Convention, Akron, Ohio, 1996-2000.

National Science Teachers Association (NSTA):

Member, International Advisory Board, 2015 – 2018.

Member, Board of Directors, 2007 – 2010.

Director, College Division, 2007 – 2010.

Member, Journal of College Science Teaching Advisory Board, 2007 – 2010.

Member, Toyota TAPESTRY Grants for Teachers Judging Panel, 2005-2008.

Chair, Nomination Committee, 2004-05.

Member, Nomination Committee, 1994-97, 2003-05.

Program Chair, 2004 Indianapolis NSTA Convention, 2002-2004.

Representative to the National Council on Accreditation of Teacher Education, 1993-2002.

Member, Awards Committee, 1999-2000.

Member, Teacher Education Committee, 1981-82 and 1993-2002.

National Activities, continued:

Member, 1996 St. Louis National Convention Planning Committee, 1994-96.  
Member, Budget and Finance Committee, 1992-94.  
General Chairperson, 1993 Kansas City National Convention for over 15,000 science educators, 1991-93.  
Chair, Task Force on Science Education Equipment, 1989-90.  
Member, Board of Directors as CESI President, 1988-89.  
Member, Supervision Committee, 1988-89.  
Member, 1989 Tulsa Area Convention Program Committee, 1988-89.  
Chair, Task Force to Establish Criteria for Excellence in Science Teaching and Career Awareness, 1983-86.  
Chair, Program Committee for 1985 Wichita Area Convention, 1983-85.  
Chair, Special Publications Advisory Board, 1982-85.  
Nominated for NSTA President, 1983.  
Special Assignment on Sabbatical Leave at NSTA, 1982-83.  
Member, Publications Committee, 1981-82.  
Member, Research Committee, 1978-80.  
Member, Executive Committee of the Board of Directors, 1979-80.  
Member, NSTA Board of Directors as Director for District Ten (KS, NE, WY, CO and NM), 1978-80.

National Council for the Accreditation of Teacher Education (NCATE):

Representative from the National Science Teachers Association, 1993-2002.  
Member, Executive Board, 1999-2002.  
Member, State Partnership Board, 1993-94, 1998-99.  
Member, Unit Accreditation Board, 1996-98.  
Assistant Chairperson, Specialty Areas Studies Board, 1995-96.  
Member, Specialty Areas Studies Board, 1994-96.  
Member, Coalition of Organizations for the Professional Preparation of Educators (COPPE), 1993-99.  
Chairperson, Board of Examiners for universities in Arkansas, Connecticut, Tennessee, and Virginia, 1991-93.  
Member, Board of Examiners for universities in Arkansas (3), Connecticut, Louisiana, Mississippi, New York, Tennessee (2), and Virginia (2), 1988-93.  
Member, Task Force to Develop Standards for Elementary Teacher Education Programs, 1988-90.  
Charter Member, Board of Examiners, 1987.

Association for Multicultural Science Education:

Member, Board of Directors, 2000-2003.

National Activities, continued:

School Science and Mathematics Association (SSMA):

Member, Program Committee, 1985-88.

Society for College Science Teachers (SCST):

Secretary-Treasurer, 2003-2006.

Council for Elementary Science International (CESI):

Past president, 1989-90.

President, 1988-89.

President-elect, 1987-88.

Secretary-treasurer, 1986-87.

National Association for Research in Science Teaching (NARST):

Member, Program Committee for 1992 Boston national convention, 1991-92.

Commission on Professionals in Science and Technology (CPST, formerly Scientific Manpower Commission):

Commissioner representing the National Science Teachers Association, 1985-99.

### NATIONAL CONSULTATIONS

National Science Foundation. Evaluator of nominations for the Presidential Award for Excellence in Mathematics and Science Teaching, 2016.

National Science Foundation. Evaluator of nominations for the Presidential Award for Excellence in Science, Mathematics and Engineering Mentoring, 2001, 2004, 2014, 2015 and 2016.

National Institute of Allergy and Infectious Diseases of the National Institutes of Health. Evaluator of grant proposals for NIAID Science Education Awards, 2011.

National Institutes of Health. Evaluator of grant proposals for the Science Education Partnership Award, 2001 and 2003.

Member, Board of Visitors, Miss Hall's School, Pittsfield, Massachusetts, 2000-2002.

Partnership for Americas Future. Evaluator of candidates for the Freida J. Riley Teacher Award to honor a teacher who has overcome personal adversity to do outstanding work with students who themselves face significant hardship, 2000 and 2001.

National Consultations, continued:

New Jersey Commission on Higher Education. Participate in the selection of High-Tech Excellence Grant recipients for total of \$14.3 million in awards, 2000 and 2001.

CLASS, Inc. (Creative Learning and Social Service) and Rainbow Bridge Boards of Directors. Focused on education of disadvantaged people, especially in science for Native American youth. Incorporated in Arizona and New Mexico respectively as 501(c)(3). 1996-2000.

Director of one of 47 regional partnerships for National Science and Technology Week (NSTW) under contract from the National Science Foundation to the Oregon Science and Technology Museum (David Heil, Director) to provide in-service training and community science events, 1994-1997.

High Plains Rural Systemic Initiative Steering Committee. National Science Foundation-funded program to improve science and mathematics education for American Indians in Montana, Wyoming, Nebraska, and North and South Dakota via 18 tribal colleges headed by Turtle Mountain Tribal College, 1994-95.

University of Idaho Department of Physics Advisory Board regarding their National Science Foundation-funded undergraduate science curriculum restructuring, 1994.

American Indian Science and Engineering Society regarding guidelines for National Science Foundation-funded math and science education projects involving Native Americans, 1994.

Northeastern State University (Tahlequah, Oklahoma), outside evaluator of their elementary education program, 1994.

American Institute of Mining, Metallurgical, and Petroleum Engineering regarding the Transformations Institute, 1993.

High Plains Consortium for Mathematics and Science, Mid-Continent Regional Education Laboratory regarding a post-secondary science and mathematics education seven state conference, 1993.

Roger Lang Clearinghouse for Circumpolar Education regarding culturally relevant curriculum and instruction for Alaska Native students, 1992.

Virginia Polytechnic Institute regarding the Technology/Science/Math Integration Project, 1992.

Oregon Department of Education regarding published guidelines for elementary science education, 1992.

National Consultations, continued:

Stanford University regarding the Human Biology Middle Grades Curriculum (HumBio) Project, 1992.

Southeast Missouri State University regarding preparation of their Institutional Report for the National Council for the Accreditation of Teacher Education, 1992.

Emporia State University regarding preparation of their Institutional Report for the National Council for the Accreditation of Teacher Education, 1991.

National Consultations, continued:

Houston Museum of Science to organize the national evaluation for NSF-funded science curriculum materials developed by the museum, 1989-90.

Evaluator of grant proposals for Teacher Enhancement and Private Sector Partnerships for the National Science Foundation (NSF), 1980-90.

University of North Carolina - Asheville as member of the National Advisory Committee for their Undergraduate Research Symposium, 1987.

TRW, Inc., regarding their activities to improve science instruction where TRW facilities are located, 1983-87.

Phillips Petroleum Co., as judge for their Search for Solutions Student Contest, 1985.

Evaluator of grant proposals for National Diffusion Network, Race and Sex Technical Assistance Centers, and Women's Educational Equity Act of the U.S. Department of Education, 1978-85.

WQED-TV, Pittsburgh, PA, regarding their use of community resources in connection with public television science programs, 1983-85.

Sohio Foundation regarding improvement of science instruction in middle schools, 1983.

Washington, D.C., Public Schools as member of the advisory board and author of proposal to National Science Foundation to fund Model (Beers) Elementary Science Program, 1983-85.

Reviewer of elementary science education texts for several publishers, 1975 - .

## NATIONAL INSERVICE

Inservice workshops for teachers of science in 42 states and DC, 1974 - :

Alabama	Idaho	Maryland	New York	South Dakota
Alaska	Illinois	Massachusetts	North Carolina	Tennessee
Arizona	Indiana	Michigan	North Dakota	Texas
Arkansas	Iowa	Minnesota	Ohio	Utah
California	Kansas	Missouri	Oklahoma	Virginia
Colorado	Kentucky	Montana	Oregon	Washington
Connecticut	Louisiana	Nebraska	Pennsylvania	West Virginia
Florida	Maine	Nevada	South Carolina	Wisconsin
Georgia		New Mexico		District of Columbia

## REGIONAL, STATE and LOCAL SERVICE

Southwest Association for Science Teacher Education

President. 2011-2012; President-Elect, 2010-2011; Past President, 2012-2013.

Hoosier Association of Science Teachers, Inc. (HASTI)

Director at Large. 2003 - 2006.

Associate Editor, The Hoosier Science Teacher. 2002 – 2006.

Editor, Theme Issue (Summer 2007) of The Hoosier Science Teacher regarding the moon, 2006 – 2007.

Indiana Academy of Science:

Chair, Science Education Section, 2000 – 01, 2002 – 03.

Ohio Department of Education:

Evaluator of science teacher education programs, 1997 - 99.

Inventure Place: Home of the Inventors Hall of Fame:

Consultant on grant-funded teacher education projects, 1994 - 99.

Co-chair, Family Fest: A Celebration of Art, Culture, and Creativity, 1996.

Co-chair, Family Invent Festival, 1995.

Jefferson County (Ohio) Educational Service Center:

Consultant-Evaluator, Goals 2000 funded project, MASTERY (Math And Science Training Equals Results for Youth) 1996-97.

Regional, State and Local Service, continued:

Summit Celebrates Science (Consortium of Inventure Place, Cuyahoga Valley National Recreation Area, Akron Zoological Park, Summit County Metroparks, and the University of Akron):

Chair, Summit Celebrates Science Committee to organize month long community science event, 1995-96.

Akron Public Schools:

Member, Mae C. Jemison Project Advisory Committee, 1997-99.

Member, Integrated Science Steering Committee, 1995-99.

Member, High School Comprehensive Science Committee, 1995-99.

Workshop leader, in-service professional development in science education, 1995-99.

Brunswick Public Schools:

Workshop leader, in-service professional development in science education, 1995.

Summit County Schools:

Co-director, Summit County/University of Akron Science Olympiad, 1994-97.

Workshop leader, in-service professional development in science education, 1995-97.

K-16 Council (Akron City Schools, Summit County Schools, and The University of Akron):

Chair, Science Focus Group, 1994-95.

Summit County Educational Partnership Foundation:

Consultant on teacher grants, 1994-95.

Kansas Association of Teachers of Science (KATS):

President, 1984-85.

President-elect, 1983-84.

Past president, 1985-86.

Member, Board of Directors, 1980-87 and 1990-93.

Chairperson, 1984 Annual KATS Convention, 1983-84.

Kansas City Museum:

Member, Challenger Learning Center Committee, 1993-94.

KU Liaison to Kansas City Committee to Establish a KC Challenger Center, 1989-93.

Regional, State and Local Service, continued:

National Aeronautics and Space Administration (NASA):

Director for Spacemobile Project in Kansas, 1992-93.

Greater Kansas City Science Fair:

Judge and judge team leader, 1975-89.

Wolf Creek Nuclear Operating Corporation:

Evaluator of Kansas science education grants, 1991-93.

Kansas State Department of Education (KSDE):

Consultant, Development of State Science Assessment, 1993-94.

Member, Science Standards Committee, 1990-1991.

Leader of training for teacher education accreditation examiners, 1988-90.

Chairperson, Evaluation Team for Pittsburg State University, 1989.

Member, Evaluation Teams for Kansas State University, 1978.

Member, Evaluation Teams for Pittsburg State University, 1975.

Douglas County, Kansas, Science Fair:

Chairperson, 1978-81.

Phi Delta Kappa:

Advisor, University of Akron Chapter, 1998-99.

President, Kappa (University of Kansas) Chapter, 1974-75.



## UNIVERSITY SERVICE

### University-wide, Texas Tech University:

- Member, Graduate Council, 2016-2018.
- Member, Horn Professor Selection Committee, 2007-08.

### College of Education, Texas Tech University:

- Member, College of Education Promotion and Tenure Committee, 2015 – 2018.
- Member, Assessment Team, 2006 – 2011.
- Member, College of Education Administration Team, 2006 – 2011.

### Department of Curriculum and Instruction, Texas Tech University:

- Founder and Co-Coordinator, Hybrid PhD in Curriculum and Instruction with Specialization in STEM Education Known as Global PRiSE, 2012 - .
- Coordinator, STEM Education Program, 2014 - 2016.
- Member, Department of Curriculum and Instruction PhD Reform Committee, 2016.
- Chair, Department of Curriculum and Instruction, 2006 - 2011.
- Coordinator, Science and Math Education Program, 2008 - 2011.

### University-wide, Ball State University:

- Member, Extended Education Committee, 2005-06.
- Member, Professional Growth Plan Development Cohort, 2004.
- Member, Graduate Education Council, 2000-03.
- Chair, Faculty Affairs Committee of the Graduate Education Committee, 2002-03.
- Member, Task Force on Undergraduate and Graduate Learning for North Central Association Institutional Self-Study, 2001-03.
- Member, *ad hoc* Committee on Electronic Submission of Dissertations, 2002-03.
- Member, *ad hoc* Committee on Post-Doctoral Fellowships, 2001.
- Faculty Fellow, Office of Academic Research and Sponsored Programs, 2000.
- Member, Teacher Education Performance Assessment System Committee (TEPASC) and TEPASC Executive Committee, 1999-2001.
- Member, Excellence in Teaching Selection Committee, 2000.

### College of Sciences and Humanities, Ball State University:

- Director, Science and Science Education Doctoral Program, 1999 - 2006.
- Member, Women in Science Committee, 1999 - 2006.
- Member, Outreach Committee of the Field Station and Environmental Education Center, 2001 - 2002.
- Minority Affairs Committee, 1999 - 2002.

Department of Biology, Ball State University:

Member, Secondary Teaching Committee, 2004-06.  
Chair, Research and Graduate Studies Committee, 1999-02, 2003-04.  
Member, Promotions and Tenure Committee, 2001-03.  
Member, Field Areas and Facilities Committee, 2000-01.

University-wide, University of Akron:

Member, President's Advisory Board, 1996-97.  
Member, Academic Achievement Programs Advisory Board, 1996-97.  
Member, University Review Committee for Chemistry, 1996.  
Member, Graduate Student Policy Committee, 1995-96.  
Member, Ohio Competency Based Arts Summer Institute Advisory Board, 1995-96.

College of Education, University of Akron:

Chairperson, Personnel Committee, 1998-99.  
Member, Administrative Council, 1997-98.  
Chairperson, Graduate Studies Committee, 1996-97.  
Member, College of Education Accreditation Committee, 1995-97.  
Chairperson, Governance Committee, 1995-96.  
Member, Task Force on Retention, Tenure and Promotion, 1995.  
Chairperson, Policy Committee, 1994-95; Member, 1995-96.

Department of Curricular and Instructional Studies, University of Akron:

Acting Department Chairperson, 1997-98.  
Chairperson, Teacher Education Faculty (N=3) Search Committee, 1996-97.  
Member, Elementary Mathematics and Early Childhood Search Committee, 1995-97.  
Chairperson, Master's Degree Committee, 1995-97.  
Chairperson, Department Self Study, 1995-96.  
Chairperson, Science Teacher Certification Committees, 1995-96.

University-wide, University of Kansas:

Facilitator, Memorandum of Understanding between Sandia National Laboratories,  
Haskell Indian Nations University, and the University of Kansas to engage  
cooperatively in education and technology activities, 1993-94.  
Member, Calendar Committee, 1993-94.  
Member, First Level Review Committee for General Research Funds, 1981-92.  
Member, University Academic Procedures and Policy Committee, 1984-86.  
Member, Graduate Council, 1981-82.  
Member, Graduate Council Graduate Faculty Appointments Review Committee, 1981-82.

University Service, continued:

School of Education, University of Kansas:

Chairperson, Personnel (Promotions and Tenure) Committee, 1993-94.  
Member, Administration Committee, 1984-89.  
Member, School of Education New Building Planning Committee, 1988.  
Member, Program Coordinating Committee, 1981-84.  
Director, Alternative Teacher Education Program, 1975-78.

Department of Curriculum and Instruction, University of Kansas:

Chairperson, 1984-89.  
Assistant Chairperson, 1980-84.  
Acting Chairperson, Fall 1983.  
Chairperson, Service Evaluation Committee, 1994.  
Member, Operations Committee, 1992-93.  
Member, Personnel (Promotions and Tenure) Committee, 1992-93.  
Chairperson, Graduate Committee, 1991-92; member, 1989-92.  
Chairperson, Chairperson Search Committee, 1991.  
Chairperson, Personnel (Promotions and Tenure) Committee, 1990-91.  
Member, Missions Committee, 1989.  
Chairperson, Graduate Studies Committee, 1981-82.  
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Over 25 book reviews in Science and Children, The Science Teacher, and American Biology Teacher.

### PROFESSIONAL ASSOCIATIONS

Science Education:

Association for Science Teacher Education.  
Council for Elementary Science International.  
National Science Teachers Association (Life Member).  
School Science and Mathematics Association (Life Member).  
Science Teachers Association of Texas.  
Society for College Science Teachers (Life Member).  
Southwest Association for Science Teacher Education.

Science:

Sigma Xi.

Education:

International Society for Technology in Education  
National Education Association (Life Member).