

WILLIAM J. STRAITS

Department of Science Education
California State University Long Beach
Long Beach, CA 90840
(562) 985-1965 wstraits@csulb.edu

EDUCATION

<i>University of Texas, Austin</i> Doctorate of Philosophy, Science Education	December 2001
<i>University of Texas, Austin</i> Masters of Education, Curriculum and Instruction	May 1997
<i>California State University, Fullerton</i> Masters of Arts, Biology	August 1995
<i>University of California, Irvine</i> Bachelor of Science, Biological Sciences	June 1991

CURRENT POSITION

Assistant Professor, Dept. of Science Ed., California State University, Long Beach, CA 8/05-present
Primary Responsibility: Coordinating and Teaching Elementary Science Teaching Methods
Courses taught: Science a Process Approach, Integrated Science, and Science Teaching K-8

PRIOR EXPERIENCE

Post-secondary Teaching Positions

<u>Assistant Professor</u> , Dept. of C & I, Appalachian State University, Boone, NC Courses taught: Science and Science Teaching in the Elementary School; Teachers, Schools, and Learners; Science Process Skill Instruction (graduate); Connecting Learners with Subject Matter (graduate); and Recent Trends and Issues in Education (graduate)	8/03-7/05
<u>Teaching Assistant</u> , Depts. of Biology & Astronomy, University of Texas, Austin, TX Courses taught: Cell and Molecular Biology; Structure and Function of Organisms; Ecology & Evolution; Molecules to Organisms (non-majors); Ecology, Evolution, & Society (non-majors); and Introduction to Astronomy (non-majors)	9/98-1/00 9/95-5/97
<u>Teaching Associate</u> , Dept. of Biology, California State University, Fullerton, CA Courses taught: Plant Physiology (graduate), Plant Ecology (graduate), Botany Laboratory, Ecology Laboratory, and General Biology Laboratory (non-majors)	9/91-6/95
<u>Instructor</u> , Dept. of Biology, Chapman University, Orange, CA Course taught: Introduction to Botany Lecture	2/93-6/93
<i>K-8th Grade Teaching Positions</i>	
<u>Teacher</u> , L. L. Hotchkiss Elementary School - DISD, Dallas, TX • Served as Fifth Grade Science and K-6 Technology Teacher Inner-city school with 100% of students Title 1 and 44% Limited English Proficient	8/02-6/03

- Middle School Teacher, The Prentice School, Santa Ana, CA 8/00-6/01
- Developed and Implemented 7th and 8th grade Life Science and Lang. Arts curricula
 - Ensured curricula and assessment accounted for special needs students
100% of student population diagnosed as dyslexic
- Substitute Teacher, Magnolia School District, Anaheim, CA 9/97-6/98
10/93-2/94
- Instructed kindergarten through sixth grade students
 - Worked with communicatively and physically challenged students
 - Taught communication skills to English as a Second Language students
- Related Employment***
- Field Biologist, Essex Environmental, Solano Beach, CA 3/00-5/00
- Surveyed urban and rural areas of Northern San Diego County, CA for presence of endangered and sensitive plant and animal species
- Graduate Assistant, University of Texas, Austin, TX 9/96-2/97
- Responsible for the evaluation of the new state-wide, kindergarten – 12th grade science curriculum, Texas Essential Knowledge and Skills (TEKS)
 - Assisted in the editing and rewriting of the science TEKS
- Research Assistant, University of Texas Marine Science Institute, Port Aransas, TX 6/96-9/96
- Assisted in data collection of plankton densities, water column chemistry, and sediment composition as part of an extensive survey of the biotic and abiotic characteristics of the Laguna Madre, TX
- Field Center Coordinator, Chautauqua Faculty Development Program, Austin, TX 1/96-6/96
- Provided technical support for instructors, before, during and after courses
 - Assisted in the screening and selection of applicants
- Field Biologist, Psomas, Irvine, CA 6/95-7/95
- Assessed primary pollinators of the endangered plant, *Eriastrum densifolium*
 - Measured pollinator effectiveness and constancy
- Field Biologist, The Chambers Group, Irvine, CA 6/92-9/92
- Measured abundance and density of vegetation with the Sierra Nevada Mtns.
 - Identified riparian, desert, and montane plant species

PUBLICATIONS

Straits, W. J. & Nichols, S. E. (in press). Using historical non-fiction and literature circles to develop elementary teachers' nature of science understandings. *Journal of Science Teacher Education*.[⊖]

Miller, L., Straits, W., Kucan, L., Trathen, W., & Dass, M. (in press). Using Literature Circle Roles for Enhanced Science Vocabulary Understanding. *The Science Teacher*.*

Straits, W. J. (in press). "She's teaching *me*." Teaching with care in a large lecture course. *College Teaching*.

[⊖] Publication includes data generated at California State University Long Beach.

* Published/prepared with and in support of practicing classroom teachers.

Gomez-Zwiep, S. & Straits, W. (in press). Pigs *can* fly... and talk, and build houses, and shop at the mall.... Addressing anthropomorphism in children's literature. *Science and Children*.

Straits, W. & Nichols, S. (in press). Literature circles for science. *Science and Children*.

Wilke, R. R. & Straits, W. J. (2006). Developing students' science process skills in large lecture classes. *The Texas Science Teacher*, 35(1), 11-16.

Straits, W. J. & Wilke, R. R. (2006). Interactive demonstrations: Examples from biology lectures. *Journal of College Science Teaching*, 35(4), 58-59.

Wilke, R. R. & Straits, W. J. (2005). Practical advice for teaching inquiry-based science process skills in the biological sciences. *The American Biology Teacher*, 67 (9), 534-540.

Straits, W. J. (2005). Mystery box writing. *Science and Children*, 43(3), 33-37.

Straits, W. J. & Wilke, R. R. (2004). Making activities inquiry-based: Tips for science lecturers. *Innovation Abstracts* 36(27).

Straits, W. J. & Wilke, R. R. (2003). Preparing for the science TAKS: Inquiry-based activities for fostering an understanding of the nature of science. *The Texas Science Teacher*, 32(2), 32-34.

Wilke, R. R. & Straits, W. J. (2003). Using analogies for improved science instruction. *The Texas Science Teacher*, 32(2), 40-42.

Straits, W. J. & Wilke, R. R. (2003). Activities-based astronomy: An evaluation of an instructor's first attempt and its impact on student characteristics. *Astronomy Educational Research*, 2(3).

Straits, W. J. & Wilke, R. R. (2002). Practical considerations for the development and use of assessments for inquiry-based instruction. *Journal of College Science Teaching*, 31 (7), 432-435.

Hemenway, M. K., Straits, W. J., Wilke, R. R., & Hufnagel, B. (2002). Educational research in an introductory astronomy class. *Innovative Higher Education*, 26(4), 271-280.*

Wilke, R. R. & Straits, W. J. (2001). The effects of discovery learning in a lower-division biology course. *Advances in Physiology Education*, 25(2), 62-69.

Straits, W. J., Gill, D. D., & Lowe, A. J. (1996). Genetic variation within and among sub-populations of the rare plant, *Lesquerella kingii* ssp. *bernadina* (Brassicaceae). *Crossosoma*, 22(2), 59-64.

MANUSCRIPTS UNDER REVIEW

Kucan, L., Trathen, W. R., Straits, W. J., Hash, D., Link, D. Miller, L., & Pasley, L. (in review). Developing approaches to vocabulary instruction in secondary classrooms: What do mathematics, art, science, and English teachers have to tell us?*

Grizzard, G. & Straits, W. (in review). Science and Conscientious Citizenry.*

Waters, M. & Straits, W. (in review). Science rocks! A *performance* assessment for earth science.*

© Publication includes data generated at California State University Long Beach.

* Published/prepared with and in support of practicing classroom teachers.

Straits, W. J. & Wilke, R. R. (in review). How constructivist are we? Representations of transmission and participatory models of instruction in "The Journal of College Science Teaching."[⊖]

WORKS IN PREPARATION, CONFERENCE PROCEEDINGS, PUBLISHED ABSTRACTS, & UNPUBLISHED MANUSCRIPTS

Straits, W. J. & Wilke, R. R. (in preparation). Inquiry 101: Design and assessment of inquiry instruction.

Straits, W. J. & Wilke, R. R. (2005). Relationships between learner characteristics and successful use of active learning strategies in a college physiology lecture course. *Proceedings of the National Association for Research in Science Teaching*.

Straits, W. J. (2004). Using historical non-fiction texts to develop pre-service teachers' nature of science understandings. *Proceedings of the Mid-South Educational Research Association*.

Bercaw, L. A., Jacobson, M. G., Straits, W. J. & Schram, P. W. (2004). Influences of community service on prospective teachers' understanding of self, others, and community. *Proceedings of the Hawaii International Conference on Education*.

Hemenway, M. K., Straits, W. J., Wilke, R. R., and Hufnagel, B. (2001). Using educational research to modify instruction in an introductory astronomy class. *Bulletin of the American Astronomical Society* 33, 1424.*

Straits, W. J. & Grizzard, G. (2005). Peanut pageant: Engaging students in contemporary science controversies. Unpublished manuscript, Appalachian State University.*

Dass, M., Straits, W., Kucan, L., Thrathen, W. Bost, R., Miller, L., & Richie, L. (2005). Mastering Scientific Vocabulary: Three Approaches to Vocabulary Instruction. Unpublished manuscript, Appalachian State University.*

Straits, W. J. (2001). Students' perspectives of factors that promote learning in large, college biology class: The influence of instructor characteristics and instructor-provided resources. Unpublished doctoral dissertation, The University of Texas at Austin.

Straits, W. J. (1997). Students' views of learning in large, non-majors biology class. Unpublished manuscript, The University of Texas at Austin.

PRESENTATIONS

Straits, W. J. (2006, Nov.). *Crossing Bridges: Applying Reader Response Theory to Science Education*. Presented at the annual National Reading Conference. Los Angeles, CA.

Kucan, L., Trathen, W. R., & Straits, W. J. (2006, Nov.). *Vocabulary Instruction: Moving between Theory and Practice*. Presented at the annual National Reading Conference. Los Angeles, CA.

Gomez-Zwiep, S. & Straits, W. (2006, Oct.). *Integration Made Elementary: Connecting Life Sciences and Language Arts/ELD*. Presented at the annual meeting of the California Science Teachers Association. San Francisco, CA.

* Published/prepared with and in support of practicing classroom teachers.

[⊖] Publication includes data generated at California State University Long Beach.

Straits, W., Olmedo, L., & Streeter, S. (2006, Oct.). *Jazz it Up! Integrating Science and Language Arts*. Presented at the annual Washington Mutual Future Teachers Conference. Santa Monica, CA. ^φ

Straits, W. J. & Wilke, R. R. (2006, April). *Transmission and Participatory Models of Instruction: How Constructivist Are We?* Presented at the national meeting of the Society of College Science Teachers. Anaheim, CA.

Wilke, R. R. & Straits, W. J. (2006, April). *Practical Considerations for Assessing Inquiry-based Instruction*. Presented at the national meeting of the Society of College Science Teachers. Anaheim, CA.

Straits, W. J., Wilke, R. R. & Lowe, A. J. (2006, April). *Interesting Integrations: Ideas for Connecting Science and Language Arts*. Presented at the national meeting of the National Science Teachers Association. Anaheim, CA.

Straits, W. J. (2006, April). *Development of Teachers' Nature of Science Understandings through Meaningful Interactions with Historical Non-fiction Texts*. Presented at the international meeting of the National Association for Research in Science Teaching. San Francisco, CA.

Wilke, R. R. & Straits, W. J. (2006, March). *An Exploration of the Effects of Active Learning Strategies on Learner Characteristics in a Human Physiology Course for Non-majors*. Presented at the annual meeting of the Texas Academy of Sciences. Beaumont, TX.

Straits, W. J. (2006, January). *Developing Elementary Teachers' Nature of Science Understandings through the Use of Literature Circles and Historical Non-fiction Texts*. Presentation at the national meeting of the Association for Science Teacher Education. Portland, OR.

Straits, W. J. & Wilke, R. R. (2005, April). *Relationships between Learner Characteristics and Successful Use of Active Learning Strategies in a College Physiology Lecture Course*. Presented at the international meeting of the National Association for Research in Science Teaching. Dallas, TX.

Wilke, R. R. & Straits, W. J. (2005, April). *The Effect of Active Learning on College Students' Achievement, Motivation, and Self-efficacy in a Human Physiology Course for Non-majors*. Presented at the national meeting of the Society of College Science Teachers. Dallas, TX.

Straits, W. J. (2005, January). *Pre-service Teachers' Representations of their Developing Nature of Science Understandings*. Presented at Qualitative Interest Group (QUIG) Conference on Interdisciplinary Qualitative Studies. Athens, GA.

Straits, W. J. (2004, November). *Using Historical Non-fiction Texts to Develop Pre-service Teachers' Nature of Science Understandings*. Presented at the Mid-South regional meeting of the Educational Research Association. Gatlinburg, TN.

Straits, W. J., Bolick, M., Creaseman, C., Dodd, C. A., Fussell, M., Walker, C., & Watson, S. (2004, November). *Simply Our Best: Easy Activities for Developing Science Process Skills*. Presented at the meeting of the North Carolina Science Teachers Association. Greensboro, NC. ^φ

Straits, W. J. (2004, October). *Developing Pre-service Teachers' Nature of Science Understandings*. Presented at the Mid-Atlantic regional meeting of the Association for the Education of Teachers of Science. Roan Mountain, TN.

Straits, W. J. & Wilke, R. R. (2004, April). *No Time for Science? Activities for Teaching Science Process Skills in an Integrated, Time-efficient Manner*. Presented at the national meeting of the National Science Teachers Association. Atlanta, GA.

^φ Presentation made with elementary education undergraduate students / teacher candidates.

Wilke, R. R. & Straits, W. J. (2004, April). *Practical Considerations for Assessing Inquiry-based Instruction*. Presented at the national meeting of the Society of College Science Teachers. Atlanta, GA.

Wilke, R. R. & Straits, W. J. (2004, March). *Assessing Inquiry Learning in the College Science Classroom*. Presented at the meeting of the Texas Academy of Sciences. Kerrville, TX.

Bercaw, L. A., Jacobson, M.G., Straits, W. J. & Schram, P.W. (2004, January). *Influences of Community Service on Prospective Teachers' Understanding of Self, Others, and Community*. Presented at the Hawaii International Conference on Education. Honolulu, HI.

Straits, W. J. & Wilke, R. R. (2003, November). *Inquiry-Based Activities for Developing Science Process Skills*. Presented at the meeting of the North Carolina Science Teachers Association. Greensboro, NC.

Wilke, R. R. & Straits, W. J. (2003, April). *Time-efficient, Inquiry-based Strategies for Teaching Science Process Skills*. Presented at the national meeting of the Society of College Science Teachers. Philadelphia, PA.

Straits, W. J. & Wilke, R. R. (2003, February). *Providing a Foundation for Inquiry: Teaching Process Skills in College Science Courses*. Presented at the meeting of the Texas Academy of Sciences. Nacogdoches, TX.

Straits, W. J. & Wilke, R. R. (2003, February). *Use of Inquiry-based, Science Process Activities: Lessons from Post-secondary Implementation for the Elementary Educator*. Presentation invited by the Department of Education, Western Kentucky University, Bowling Green, KY

Straits, W. J. & Wilke, R. R. (2003, February). *Science Process Skills Activities for Elementary and Middle School Classrooms*. Presentation invited by The Department of Curriculum and Instruction, Appalachian State University, Boone, NC

Straits, W. J. & Wilke, R. R. (2003, February). *Inquiry-based Alternatives for Teaching Science Process Skills in the Elementary Classroom*. Presentation invited by The Charter College of Education, California State University, Los Angeles, CA

Straits, W. J. (2002, October). *Texas Safety Standards*. Training session presented at L. L. Hotchkiss Elementary School, D.I.S.D. Dallas, TX.

Straits, W. J. (2002, August). *Science TAKS: A brief introduction*. Presented at L. L. Hotchkiss Elementary School, D.I.S.D. Dallas, TX.

Wilke, R. R. & Straits, W. J. (2002, April). *Implementing and Assessing Inquiry Learning: Ideas for Science Educators*. Paper and seminar conducted for the Region XV Science Collaborative, as part of the Texas Regional Collaboratives for Excellence in Science Teaching. Angelo State University, San Angelo, TX.

Wilke, R. R. & Straits, W. J. (2002, March). *Inquiry Learning in Higher Education: Ideas for College Educators*. Paper and seminar conducted at the invitation of the Teaching and Learning Scholarship Series. Abilene Christian University, Abilene, TX.

Hemenway, M. K., Straits, W. J., Wilke, R. R., & Hufnagel, B. (2002, January). *Using Educational Research to Modify Instruction in an Introductory Astronomy Class*, as part of the Special Oral Session, *The Astronomy Diagnostic Test: Development, Results and Applications*. Presented at meeting of the American Astronomical Society. Washington, D.C.

Wilke, R. R. & Straits, W. J. (2001, November). *Assessing Inquiry Learning: Ideas for the High School Science Teacher*. Presented at the Conference for the Advancement of Science Teaching. Austin, TX.

Wilke, R. R. & Straits, W. J. (2001, October). *Inquiry Learning Strategies for the Secondary Science Teacher*. Presented at the Concho Valley Math and Science Conference. San Angelo, TX.

Wilke, R. R. & Straits, W. J. (2001, August). *Taking the Mystery out of Inquiry: Strategies for College Educators*. Presented at The Lilly Conference. San Marcos, TX.

Straits, W. J. & Wilke, R. R. (2000, December). *Assessing Inquiry Learning*. Presented at the regional meeting of the National Science Teachers Association. Phoenix, AZ.

Hemenway, M. K., Straits, W. J., Wilke, R. R., & Hufnagel, B. (2000, June). *Educational Research in an Introductory Astronomy Class: Practical Advice*. Presented at the meeting of the American Astronomical Society. Pasadena, CA.

Straits, W. J. & Wilke, R. R. (2000, April). *Students' Views of an Activity-based Astronomy Course and its Effects on Learner Characteristics*. Presented at the annual meeting of the National Association of Research in Science Teaching. New Orleans, LA

Straits, W. J. (2000, February). *Discovery Learning: An Example from a Lower-division Biology Course*. Presented at the invitation of the Biological Sciences / Biology Education Departmental Seminar Series at Northern Colorado University. Greeley, CO.

Wilke, R. R. & Straits, W. J. (1999, November). *Implementing Discovery Learning in the College Science Classroom*. Presented at the regional meeting of the National Science Teachers Association. Tulsa, OK.

Hemenway, M. K., Straits, W. J., & Wilke, R. R. (1999, April). *Bridging the Gap in Astronomy: K-12 to College*. Presented at the annual meeting of the American Association of Physics Teachers. San Antonio, TX.

Tippins, D., Nichols, S., Wiesman, K., Gohl, D., & Straits, W. (1996, February). *Science Education Reform: A Tapestry of Voices*. Presented at the International Conference of Researchers in Science and Mathematics Education. Belize City, Belize.

Nichols, S. & Straits, W. (1995, December). *Environmental Education- Bringing it Home*. Presented at the regional meeting of the National Science Teachers Association. San Antonio, TX.

RESEARCH ACTIVITY

Current projects

Exploring the effects of using of science-based, historical non-fiction readings in a science education course for prospective and practicing elementary teachers with regard to students' nature of science understandings and the relation between understandings and subsequent science teaching, Appalachian State University and California State University Long Beach. 2004-present

Investigating the use of literature circles-based instruction in an science methods education course for prospective and practicing elementary teachers and the influence upon subsequent reading instruction with particular attention to reading in the content areas, Appalachian State University and California State University Long Beach. 2004-present

Engaging in a critical ethnographic exploration of the nature and affects of prospective, elementary science teacher culture in collaboration with Sherry Nichols, University of Alabama at Tuscaloosa and M.E. Spencer, University of Montevallo. 2004-present

Conducting original investigation of the effects of inquiry-based and science process skill instruction upon college biology students' self-efficacy, achievement, and attitudes towards science, in collaboration with R. Russell Wilke, Angelo State University. 2000-present

Completed projects

- Participated as Co-principle Investigator in research and professional development effort intended to increase student reading ability and content-specific vocabulary mastery at Alleghany High School, Sparta NC. Funded (**\$135,400**) by a NC QUEST grant, Woodrow Trathen - project director, Appalachian State University. 2005
- Participated as Science Education Consultant in research and professional development effort intended to increase student reading ability and content-specific vocabulary mastery at Alleghany High School, Sparta NC. Funded (**\$291,581**) by a NC QUEST grant, Woodrow Trathen - project director, Appalachian State University. 2004-2005
- Participated in four-year, longitudinal study of community service and service-learning on prospective elementary teachers' views of self, others, and community and the impacts on teachers' future classroom practice, in collaboration with Lynne Bercaw and Pam Schram, Appalachian State University. 2003-2004
- Conducted original investigation of students' perceptions of their learning in a large undergraduate biology lecture course, under the direction of James Barufaldi, The University of Texas at Austin. 1998-2001
- Participated in collaborative investigations of the effects of discovery and active learning-based instruction upon undergraduate students' self-efficacy, attitudes towards science, and achievement, under that direction of Marilla Svinicki, The University of Texas at Austin. 1998-2001
- Assisted in data collection of plankton densities, water column chemistry, and sediment composition as part of an extensive survey of biotic and abiotic characteristics of the Laguna Madre in the laboratory of Ken Dunton, The University of Texas Marine Science Institute. 1996
- Participated in original investigation to assess science curriculum reform effort of the Science Task Force within the Austin Independent School District, under the direction of Sherry Nichols, The University of Texas at Austin. 1995-1996
- Conducted original investigation to assess variation within and among sub-populations of the endangered plant, *Lesquerella kingii* ssp. *bernadina*, Master's Thesis work in the laboratory of David Gill, California State University at Fullerton. 1991-1995
- Assisted with sampling and electrophoretic analysis for an investigation that assessed variation and reproductive mode of the red alga, *Lithothrix aspergillum*, in the laboratory of Steven Murray at California State University at Fullerton. 1991-1995

FACULTY DEVELOPMENT COURSES OFFERED

- "Practical Considerations for Developing Science Process Skills in the Natural Sciences: Providing a Foundation for Inquiry." Offered with R. Wilke through the National Science Foundation, Chautauqua faculty development program, University of Texas at Austin field center. Austin, TX. Attendees: Post-secondary science instructors from throughout the United States. July 14-16, 2006
- "Birding in the Lower Rio Grande Valley of Texas." Offered with R. Wilke through the National Science Foundation, Chautauqua faculty development program, University of Texas at Austin field center. McAllen, TX. Attendees: Post-secondary instructors from throughout the United States. May 18-21, 2006

- “Using Literature Circles for Meaningful Interaction with Science Texts.” Offered with S. Nichols at the annual meeting of the Association for Science Teachers Education, Portland, OR. Attendees: Science teacher educators from throughout the United States. Jan. 14, 2006
- “Providing a Foundation for Inquiry: Developing Science Process Skills in the Biological Sciences.” Offered with R. Wilke through the National Science Foundation, Chautauqua faculty development program, University of Texas at Austin field center. Austin, TX. Attendees: Post-secondary Biology instructors from throughout the United States. July 14-16, 2005
July 16-18, 2004
- “Inquiry, Science Process Skills, Integration... and the State Science Test.” Offered with L. Moore and G. Bastarache, through the Math and Science Education Center (MSEC), Appalachian State University. Boone, NC. Attendees: Teachers from throughout western North Carolina. June 13-17, 2005
- “Science investigations.” Offered as part of the Math & Science Workshop for Women, Grades 3-6 Teachers & Kids, through the Math and Science Education Center, Appalachian State University. Boone, NC. Attendees: Watauga County teachers and students, grades 3-6. June 25, 2004
- “Science processes and the E.O.G. science tests.” Offered with S. Dyche through the Math and Science Education Center (MSEC), Appalachian State University. Boone, NC. Attendees: Watauga County teachers, grades K-8. Nov.7-8, 2003

SERVICE (abbreviated)

University

- Served as a member of the search committee for the Mathematics and Science Education Center directorship, Appalachian State University.
- Participated in Phase II Freshman Orientation’s Faculty/Student Exchange, Appalachian State University.
- Participated in University-wide, “Adopt-a-Faculty Member” program, supporting on-campus students, Appalachian State University.
- Collaborated with colleagues to lead elementary science activities as part of Kaleidoscope Festival, California State University Long Beach.

College

- Served as a member of the NCATE Taskforce Committee for the Elementary Education Program, Department of Curriculum and Instruction, Appalachian State University.
- Served as a member of the NCATE Taskforce Sub-committee to examine options for using content from core course towards program standards, Department of Curriculum and Instruction, Appalachian State University.
- Served as a member of *ad hoc* committee to develop and evaluate core items for course evaluations, Department of Curriculum and Instruction, Appalachian State University.
- Served as co-Counselor for Kappa Delta Pi, Education Honor Society, Appalachian State University.
- Served as primary faculty advisor for 41 undergraduate students within the Elementary Education Program, Department of Curriculum and Instruction, Appalachian State University.
- Conducted Single Subject Credential Program exit interviews, Department of Science Education, California State University Long Beach.
- Conducted Single Subject Credential Program (SSCP) candidate interviews, Department of Science Education, California State University Long Beach.
- Served as co-coordinator of SCED 475, *Teaching Science K-8*, Department of Science Education, California State University Long Beach.

- Coordinated department chairperson election process, Department of Science Education, California State University Long Beach.
- Presented guest lecture for SSCP Student Teaching Seminar, Department of Science Education, California State University Long Beach.
- Served as Faculty Marshall for 2006 Commencement Ceremony, College of Natural Sciences and Mathematics, California State University Long Beach.

Local Community

- Collaborated with Mr. Glenn Grizzard of Mountain Pathways Montessori School to deliver weekly science instruction to middle school-aged children, Boone, NC.
- Collaborated with the Mathematics and Science Education Center to develop and present in-service training programs to K-8 teachers from throughout western North Carolina.
- Served as member of:
 - Long Beach Area Science Educator Network, 2005-present
 - Bolsa Chica Amigos, 2006-present

Professional Community

- Served as reviewer for:
 - National Association for Research in Science Teaching annual meeting, 2006.
 - *Academic Reading 5ed.*, Pearson Longman Publishers. 2005
 - Association for Science Teacher Education annual meeting, 2006-present.
 - Journal of Science Teacher Education, 2006-present
- Collaborated with the Science Education Center, University of Texas and Dr. Russell Wilke of Angelo State University to develop and present post-secondary science instructor professional development programs.
- Served as member of:
 - California Science Teachers Association. 2005-present
 - California Science Teachers Association. 2005-present
 - Association for Science Teacher Education, 2004-present
 - National Science Teachers Association, 1996-present
 - Society of College Science Teachers, 1996-present
 - National Association for Researchers in Science Teaching, 1995-present
 - National Association of Biology Teachers, 1999-2006
 - Texas Academy of Sciences, 2003-2005
 - North Carolina Science Teachers Association, 2003-2005
 - Science Teachers Association of Texas, 1996-2001