

**CURRICULUM VITAE
ANDREW T. LUMPE**

CONTACT INFORMATION

Seattle Pacific University
3307 Third Avenue West
Seattle, WA 98199-1950
Phone: 206-281-2369
Email: lumpea@spu.edu

EDUCATION

<u>Degree</u>	<u>Institution</u>	<u>Major</u>	<u>Date Awarded</u>
Ph.D.	Kansas State University Manhattan, Kansas John Staver, Advisor	Curriculum & Instruction	1992
M.S.	Kansas State University Manhattan, Kansas Jerry Horn, Advisor	Secondary Education	1990
B.A.	Washburn University Topeka, Kansas	Biology	1983

CERTIFICATIONS

- Washington State Teacher Residency Certificate with endorsements in Science and Biology

PROFESSIONAL EXPERIENCES

- Seattle Pacific University, Seattle, Washington
School of Education
 - Associate Dean, 2010 – present
 - Director of Doctoral Programs, 2009 – present
 - Chair of Curriculum and Instruction, 2007 – 2010
 - Professor, 2006 – present (tenured 2009)

- Renton School District, Renton, Washington,
 - Director of Curriculum and Professional Development, 2004 – 2006

- University of Texas at Tyler, Tyler, Texas
 - Roosth Endowed Chair of Mathematics and Science Education, 2002 – 2003
 - Professor of Curriculum and Instruction (with tenure), 2002-2003

- Southern Illinois University Carbondale, Carbondale, Illinois
College of Education, Department of Curriculum and Instruction
 - Director, Teaching Excellence in Mathematics and Science Program, 1999 – 2002
 - Professor, 2000 – 2002, 2004
 - Associate Professor, 1999 – 2000 (tenured 1999)
 - Assistant Professor, 1996 - 1999

- University of Toledo, Toledo, Ohio
College of Education, Department of Curriculum and Instruction
 - Assistant Professor, 1992 – 1996

- Kansas State University, Manhattan, Kansas
College of Education, Center for Science Education
 - Graduate Teaching Assistant, 1989 – 1992
 - Assistant State Director, Kansas Junior Academy of Science, 1989 – 1991

- Topeka Public Schools, Topeka, Kansas
 - High School Science Teacher, Topeka West High School, 1986 – 1989
 - Middle School Science Teacher, Eisenhower Middle School, 1984 – 1986

HONORS AND AWARDS

- [2011 Sloan-C Effective Practice Award Winner](#)
- College of Education Teacher of the Year Award, Southern Illinois University Carbondale, 1999
- College of Education Dean's Merit Award, University of Toledo, 1995
- United States Environmental Protection Agency President's Environmental Youth Award, 1989
- Youth for Christ/Campus Life Volunteer of the Year Award, Topeka, Kansas, 1987

PUBLICATIONS

Peer-Reviewed

1. Soine, K., & Lumpe, A.T. (submitted for review). Measuring characteristics of teacher professional development. *Teacher Development*.
2. Wicks, D., Lumpe, A.T., Algera, H., Gritter, K., & Barrett, H. (2011). bPortfolios: Blogging for Reflective Practice. *Sloan-C Effective Practices*. Retrieved from http://sloanconsortium.org/effective_practices/bportfolios-blogging-reflective-practice. [2011 Sloan-C Effective Practice Award Winner](#).
3. Lumpe, A. T., Czerniak, C. M., Haney, J. J., & Beltyukova, S. (2011). Beliefs about Teaching Science: The Relationship between Elementary Teachers' Professional Development and Student Achievement. *International Journal of Science Education*. <http://www.tandfonline.com/doi/abs/10.1080/09500693.2010.551222>
4. Butler, K., & Lumpe, A. T. (2009). Student Use of Scaffolding Software: Relationships with Motivation and Conceptual Understanding. *Journal of Science Education and Technology*, 17(5), 427-436.
5. Bhattacharyya, S., & Lumpe, A. T. (2009). A Report on a College Level Inquiry-based Project in Science Education: Issues in Project and Evaluation Design. *Contemporary Issues in Education Research*, 2(2), 55-65.

6. Bhattacharyya, S., Volk, T. L., & Lumpe, A. T. (2009). The influence of an extensive inquiry-based field experience on pre-service elementary student teachers' science teaching beliefs. *Journal of Science Teacher Education*, 20(3), 199-218.
7. Haney, J. J., Czerniak, C. M., & Lumpe, A. T. (2003). Constructivist beliefs about the science classroom learning environment: Perspectives from teachers, administrators, parents, community members, and students. *School Science and Mathematics*, 103(8), 1-12.
8. Lumpe, A. T., & Butler, K. (2002). The Information Seeking Strategies of High School Science Students. *Research in Science Education*, 32, 549-566.
9. Haney, J. J., Lumpe, A. T., Czerniak, C. M., & Egan, V. (2002). From beliefs to actions: The beliefs and actions of teachers implementing change. *Journal of Science Teacher Education* 13(3), 287-313.
10. Lumpe, A. T., & Chambers, E. (2001). Assessing teachers' context beliefs about technology utilization. *Journal of Research on Technology in Education*, 34(1), 93-107.
11. Beck, J., Czerniak, C. M., & Lumpe, A. T. (2000). Teacher beliefs regarding the implementation of constructivism in their classroom. *Journal of Science Teacher Education*, 11(3), 1-21.
12. Lumpe, A. T., Haney, J. J., & Czerniak, C. M. (2000). Assessing teachers' beliefs about their science teaching context. *Journal of Research in Science Teaching*, 37(3), 275-292.
13. Czerniak, C. M., Lumpe, A. T., Haney, J. J., & Beck, J. (1999). Teachers' Beliefs About Using Educational Technology in the Science Classroom. *International Journal of Educational Technology*, 1(2), [online]. Available: <http://www.outreach.uiuc.edu/ijet/v1n2/> [1999, December, 15].
14. Czerniak, C. M., Lumpe, A. T., & Haney, J. J. (1999). Relationship between teacher beliefs and science education reform: What are teachers' beliefs about thematic units? *Journal of Science Teacher Education*, 10(2) 123-145.
15. Lumpe, A. T., Czerniak, C. M., Haney, J. J. (1999). Supporting the implementation of inquiry-based elementary science programs: Setting the stage for local reform. *Electronic Journal of Science Education*, 3(4), [online]. Available: <http://unr.edu/homepage/crowther/ejse/ejsev3n4.html> [1999, July, 12].
16. Lumpe, A. T., Haney, J. J., & Czerniak, C. M. (1998). Teacher beliefs and intentions to implement Science-Technology-Society (STS) in the classroom. *Journal of Science Teacher Education*, 9(1), 1-24.

17. Lumpe, A. T., Czerniak, C. M., Haney, J. J. (1998). Science teacher beliefs and intentions regarding the use of cooperative learning. *School Science and Mathematics*, 98(3), 123-135.
18. Schneider, R. M., & Lumpe, A. T. (1996). The nature of student science projects in comparison to educational goals for science. *The Ohio Journal of Science*, 96(4/5), 81-88.
19. Czerniak, C. M., & Lumpe, A. T. (1996). Relationship between teacher beliefs and science education reform. *Journal of Science Teacher Education*. 7(4), 247-266.
20. Wang, J., Oliver, J. S., & Lumpe, A. T. (1996). The relationship of student attitudes toward science, mathematics, English and social studies in U.S. Secondary schools. *Research in Schools*, 3(1), 13-22.
21. Haney, J. J., Czerniak, C. M., & Lumpe, A. T. (1996). Teacher beliefs and intentions regarding the implementation of science education reform strands. *Journal of Research in Science Teaching*, 33(9), 971-993.
22. Czerniak, C. M., & Lumpe, A. T. (1996). Predictors of science fair participation using the theory of planned behavior. *School Science and Mathematics*, 96, 355-361.
23. Lumpe, A. T., & Beck, J. (1996). A profile of high school biology textbooks with implications for biology instruction. *American Biology Teacher*, 58(3), 147-152.
24. Haney, J. J., & Lumpe, A. T. (1995). A teacher professional development framework guided by science education reform policies, teachers' needs, and research. *Journal of Science Teacher Education*, 6(4), 187-196.
25. Lumpe, A. T. (1995). Peer interaction in science concept development and problem solving. *School Science and Mathematics*, 95(6), 302-309.
26. Staver, J. R., & Lumpe, A. T. (1995). Two investigations of students' understanding of the mole concept and its use in problem solving. *Journal of Research in Science Teaching*, 32(2), 177-193.
27. Lumpe, A. T., & Staver, J. R. (1995). Peer collaboration and concept development: Learning about photosynthesis. *Journal of Research in Science Teaching*, 32(1), 71-98.
28. Lumpe, A. T., & Koehler, K. (1994). Educating the educators: Northwest Ohio's Project STAR. *Ohio Association of Supervisors and Curriculum Directors Journal*, 1(3), 37-40.
29. Staver, J. R., & Lumpe, A. T. (1993). A content analysis of the presentation of the mole concept in chemistry textbooks. *Journal of Research in Science Teaching*, 30(4), 321-337.

30. Lumpe, A. T., & Oliver, J. S. (1991). Dimensions of Hands-on Science. *American Biology Teacher*, 53(6), 345-348.
31. Lumpe, A. T., & Scharmann, L. C. (1991). Meeting contemporary goals for lab instruction: A content analysis of two secondary biology textbooks. *School Science and Mathematics*, 91(6), 231-235.

Invited/Edited

1. Lumpe, A.T. (2010). Emerging Technologies for Learning. *Curriculum in Context*, 36(3), 19-21.
2. Lumpe, A. T. (2008). No science teacher left behind. *Journal of Science Teacher Education*, 19(4), 313-315.
3. Lumpe, A. T. (2007). Application of effective schools and teacher quality research to science teacher education. *Journal of Science Teacher Education*, 18(3), 345-348.
4. Lumpe, A. T. (2007). Research based professional development: Teachers engaged in professional learning communities. *Journal of Science Teacher Education*, 18(1), 125-128.
5. Lumpe, A. T., (2005). The emperor has no clothes: The tension between the standards/testing movement and a viable curriculum. *Journal of Science Teacher Education*, 16(4), 259-261.
6. Lumpe, A. T., (2004). The role of science educators in curriculum development and teacher professional development, *Journal of Science Teacher Education*, 15(3), 173.

Chapters in Professional Books

1. Czerniak, C. M., S. Beltyukova, J. Struble, J. J. Haney, and A. T. Lumpe. (2006). Do you see what I see? The relationship between a professional development model and student achievement. In R. E. Yager (Ed.), *Exemplary Science in Grades 5-8: Standards-Based Success Stories* (pp. 13-43). Arlington, VA: NSTA Press.
2. Lumpe, A. T. (1999). The role of philosophy in educational reforms: Never the twain shall meet? In G. Cizek (Ed.), *Handbook on educational policy* (pp. 81-98). San Diego, CA: Academic Press.
3. Middleton, B., Gibson, D., & Lumpe, A. (1998). Trees in old field succession. In B. W. Grant (Ed.) *Experiments to Teach Ecology - Volume II* [Online]. Ecological Society of America. Available: <http://www.science.widener.edu/~grant/esa/edweb.html#laboratory> activities.

Reviews

1. Lumpe, A. T. (1992). Safety in School Labs. *School Science and Mathematics*, 92(1), 49.
2. Lumpe, A. T. (1990). Lake Study. *School Science and Mathematics*, 90(8), 241-242

EXTERNAL GRANTS

1. Systems Education Approach to Science, funded by the Howard Hughes Medical Association, A. Lumpe, Project Evaluator, \$721,734, (\$59,000 subcontract to the Institute for Systems Biology), September 2007 – September 2009.
2. Elementary Teacher Science Professional Development, funded by the Boeing Corporation's Flight to the Future Program, A. Lumpe, Project Director, \$25,000, October, 2005 – June, 2006.
3. Sixth Grade Science by Inquiry, funded by the Boeing Corporation's Flight to the Future Program, A. Lumpe, Project Director, \$24,622, October, 2004 – June, 2005.
4. Illinois Mathematics and Science Partnership, funded by the Illinois State Board of Education's Math/Science Partnership (MSP) Program, A. Lumpe & E. Suddarth, co-Project Directors, \$400,000, February, 2004 - August, 2004.
5. Center for Collaboration in Math and Science Education, funded by the United States Department of Education's Fund for the Improvement of Education (FIE) program. A. Lumpe, Principal Investigator, \$347,725, April, 2003 – December, 2004.
6. Project LIFT-off (Learners Integrating Future Technologies), funded by the United States Department of Education Preparing Tomorrow's Teachers to use Technology (PT3) Program, A. Lumpe, Principal Investigator, \$541,608, June, 2000 – June, 2001.
7. KDI-ASSESS Project (Analyzing Software Scaffolding in Educational Settings for Science), funded by the National Science Foundation Knowledge and Distributed Intelligence (KDI) Program, A. Lumpe, Principal Investigator, \$131,171 (subcontract to the University of Michigan), October, 1999 – September, 2002.
8. Blazing Learning Trails: A Professional Development Model to Improve School Learning Communities, funded by the United States Department of Education Technology Innovation Challenge Grant Program, \$6,708,999. M. Harp, A. Lumpe, G. Bequette, D. Biby, co-Principal Investigators, October, 1998 – September, 2003.

9. Enhancing Science Literacy Through Project-Based Science, funded by the Illinois State Board of Higher Education Scientific Literacy Program, \$14,000 (subcontract to SIUC), K. Gilbert, A. Lumpe, co-Principal Investigators, October, 1998 - July, 1999.
10. Infusing Technology Through Project-Based Science, funded by the Illinois Board of Higher Education Eisenhower Program, A. T. Lumpe & K. Wise, co-Principal Investigators, \$69,000, January, 1998.
11. Enhancing Science Learning Through Project-Based Science and Technology Integration, funded by the Illinois State Board of Education Goals 2000 Program, M. Harp, D. Biby, & A. T. Lumpe, co-Principal Investigators, \$77,000, January, 1998.
12. Long Term Field Studies For Undergraduate Education: A Snapshot in Time, funded by the National Science Foundation, D. J. Gibson, B. A. Middleton, G. W. Saunders, & A. T. Lumpe, Co-Principal Investigators. \$242,000, January, 1996 – January, 1999.
13. Project STAR III (Science Teachers As Reformers), funded by the Ohio Board of Regents Eisenhower Program. J. J. Haney & A. T. Lumpe, co-Principal Investigators. \$49,950, September, 1995.
14. Project STAR II (Science Teachers As Reformers), funded by the Ohio Board of Regents Eisenhower Program. A. T. Lumpe, Principal Investigator, \$64,907, September, 1994.
15. Project STAR (Science Teachers As Reformers), funded by the Ohio Board of Regents Eisenhower Program, A. T. Lumpe, Principal Investigator, \$44,037, September, 1993.

PAPERS AND PRESENTATIONS AT PROFESSIONAL MEETINGS

1. Wicks, D., Ellis, A., & Lumpe, A.T. *Students' Perception of Collaborative Small Group Projects Using Synchronous and Asynchronous Tools*. A paper presented at the Sloan-C International Conference on Online Learning, Orlando, Florida, November 10, 2011.
2. Wicks, D., & Lumpe, A.T. *bPortfolios: Blogging for Reflective Practice. 2011 Sloan-C Effective Practices Award Winner*. A paper presented at the Sloan-C International Conference on Online Learning, Orlando, Florida, November 10, 2011.
3. Lumpe, A.T., Wicks, D., & Williams, T. *bPortfolios: Blog Portfolios and Self-Tagging as Reflective Practice for Teachers*. A paper presented at the Sloan-C International Symposium on Emerging Technology Applications for Online Learning, San Jose, California, July 13, 2011.

4. Wicks, D., Ellis, A., & Lumpe, A.T. *Use of Synchronous Collaborative Wikis in an Online Learning Environment*. A paper presented at the Sloan-C International Conference on Online Learning, Orlando, Florida, November 5, 2010.
5. Wicks, D. & Lumpe, A.T. *Learning How to Assess Learning Portfolios*. A paper presented at the Sloan-C International Symposium on Emerging Technology Applications for Online Learning, San Jose, California, July 22, 2010.
6. Lumpe, A.T., & Wicks, D. *Evaluation of the Use of Semantic Web Technology in a Collaborative Learning Environment*. A paper presented at the International Conference on Online Learning, Orlando, Florida, October 29, 2009.
7. Wicks, D. & Lumpe, A.T. *Lecture Capture Technology: One size does not fit all*. A paper presented at the Sloan-C International Symposium on Emerging Technology Applications for Online Learning, San Francisco, California, June 17, 2009.
8. Eigenbrood, R., Lumpe, A., Algera, H., & Wicks, D. *Electronic Portfolios 2.0*. A paper presented at the Sixth Annual OSPI/Higher Education Assessment Conference, SeaTac, Washington, April 16, 2009.
9. Lumpe, A. T., Riley-Black, D. *A Professional Growth Continuum for Science Education*. A paper presented at the annual meeting of the Association for Science Teacher Education, St. Louis, Missouri, January 11, 2008.
10. Lumpe, A. T., & Riley-Black, D. *Science Educators Network: Supporting Teacher's Professional Growth*. A presentation at the Washington State Association for Supervision and Curriculum Development annual conference, SeaTac, Washington, November 2, 2007.
11. Struble, J., Czerniak, C. M., Beltyukova, S., Haney, J., & Lumpe, A. T. *Do You See What I See? The Relationship Between a Professional Development Model and Student Achievement*. An invited presentation at the National Science Teachers Association national conference, St. Louis, Missouri, March 30, 2007.
12. Lumpe, A. T. *Instructional Strategies that Impact Student Achievement*. A presentation at the Northwest Conference of the Association for Christian Schools International, Bothell, Washington, February 8, 2007.
13. Czerniak, C. M., Shymansky, J., Yore, L., Krajcik, J., & Lumpe, A. T. *Effective and Efficient Reporting of Complex Science Education Development Projects and Teacher Education Research Studies in Journals*. A paper presented at the annual meeting of the Association for Science Teacher Education, Clearwater, Florida, January 6, 2007.

14. Lumpe, A. T., Czerniak, C. M., Haney, J. J., & Fox, C. *The Impact of a Systemic Professional Development Program on Pedagogy and Curriculum Materials Use*. A paper presented at the annual meeting of the National Association for Research in Science Teaching, Philadelphia, PA, March 25, 2003.
15. Lumpe, A. T. *The Information Seeking Strategies of High School Science Students*. A paper presented at the annual meeting of the American Educational Research Association, New Orleans, Louisiana, April 5, 2002.
16. Chambers, E., & Lumpe, A. T. *Collaborative Evaluation of Technology Enriched Lesson Plans*. A paper presented at the annual meeting of the American Evaluation Association, St. Louis, Illinois, November 9, 2001.
17. Chambers, E., & Lumpe, A. T. *Changes In Teachers' Beliefs And Technology Usage Following An Extensive Professional Development Program*. A paper presented at the annual meeting of the Midwest Educational Research Association, Chicago, Illinois, October 25, 2001
18. Lumpe, A. T., & Chambers, E. *Assessing Students' Motivational Belief Profiles Regarding the Use of Learner-Centered Designed Science Software*. A paper presented at the annual meeting of the National Association for Research in Science Teaching, St. Louis, Missouri, March 26, 2001.
19. Enochs, L., Czerniak, C., Ginns, I., Hagedorn, E., Haney, J., Lumpe, A., Riggs, I., & Watters, J. *Science Teaching Self-Efficacy Beliefs: A Review of Research and New Directions*. A paper presented at the annual meeting of the National Association for Research in Science Teaching, St. Louis, Missouri, March 26, 2001
20. Lumpe, A. T. *Accessing and Using Science Information from the Internet*. A presentation at the Regional Technology Showcase, Carbondale, Illinois, March 14, 2001.
21. Lumpe, A. T. *Accessing and Using Science Information from the Internet*. A presentation at the Science in the South Illinois Science Teachers Association Conference, Carbondale, Illinois, March 9, 2001.
22. Enochs, L. G., Riggs, I., Czerniak, C. M., Lumpe, A. T., Shroyer, M. G., & Haney, J. J. *Science Teaching Self-efficacy Beliefs: A Discussion of Preservice, Inservice, and Measurement Issues*. A paper presented at the annual meeting of the Association for the Education of Teachers of Science, Costa Mesa, California, January 20, 2001.
23. Shymansky, J. A., Hand, B., Lumpe, A. T., Czerniak, C. M., & Yore, L. *Documenting, Interpreting and Evaluating Local Systemic Change: Core Requirements and Site Specific Research Issues*. A paper presented at the annual meeting of the Association for the Education of Teachers of Science, Costa Mesa, California, January 20, 2001.

24. Lewis, S., Czerniak, C. M., Haney, J. J., Krajcik, J., Lumpe, A. T., & O'Brien, G. *Using Project-Based Science (PBS) Approach with Education Students in the University Classroom: Early Reports of Successes, Challenges, and Opportunities for Research*. A paper presented at the annual meeting of the Association for the Education of Teachers of Science, Costa Mesa, California, January 20, 2001.
25. Lumpe, A. T. *Assessing Teachers' Context Beliefs About Technology Utilization*. A paper presented at the annual meeting of the National Association for Research in Science Teaching, New Orleans, Louisiana, May 1, 2000.
26. Haney, J. J., Lumpe, A. T., Czerniak, C. M., Shafer, M., & Gallagher, D. *The Beliefs and Behaviors of Teachers Implementing Change*. A paper presented at the annual meeting of the National Association for Research in Science Teaching, New Orleans, Louisiana, April 30, 2000.
27. Lumpe, A. T., & Nipper, J. W. *Project-Based Science: Using Technology to Engage Students*. A presentation at the National Science Teachers Association annual convention, Orlando, Florida, April 7, 2000.
28. Lumpe, A. T. *Using Web-Based Tools to Foster Science Inquiry*. A presentation at the Regional Technology Showcase, Carbondale, Illinois, March 16, 2000.
29. Lumpe, A. T. *Using Technology to Enhance Science Inquiry*. A presentation at the Science in the South Illinois Science Teachers Association Conference, Carbondale, Illinois, March 10, 2000.
30. Gibson, D., Middleton, B., Lumpe, A. Mathis, M., Brandon, A., & Bhattacharyya, S. *Institutionalization of inquiry-based ecology labs into the life science curriculum*. A paper presented at the annual meeting of the Illinois State Academy of Sciences, Carbondale, Illinois, April 10, 1999.
31. Lumpe, A. T., Czerniak, C. M., & Haney, J. J. *Supporting the Implementation of Inquiry-based Elementary Science Programs*. A paper presented at the annual meeting of the National Association for Research in Science Teaching, Boston, Massachusetts, March 30, 1999.
32. Lumpe, A. T., Gibson, D., & Middleton, B. *Teaching Ecology Through Field-Based Inquiry*. A presentation at the National Science Teachers Association annual convention, Boston, Massachusetts, March 27, 1999.
33. Lumpe, A. T. *Using Technology to Enhance Science Inquiry*. A presentation at the Regional Technology Showcase, Carbondale, Illinois, March 18, 1999.
34. Lumpe, A. T., & Wise, K. C. *Project-Based Science*. A presentation at the Science in the South Illinois Science Teachers Association Conference, Carbondale, Illinois, March 12, 1999.

35. Mathis, M., Middleton, B. A., Gibson, D., Lumpe, A., & Saunders, G. *Improving Science Literacy Through the Use of Inquiry Methods in Long-Term Succession Plots*. A paper presented at the annual meeting of the Ecological Society of America, Baltimore, MD, August 7, 1998.
36. Waggoner, J., Lumpe, A. T., Gray, K., Dixon, B. G., & McIntyre, J. *The SIUC Elementary Education Cohort Program*. A paper presented at the National Academy on the Alignment of Standards and Teacher Development for Student Learning, Washington, D.C., June 6, 1998.
37. Lumpe, A. T., & Haney, J. J. *Development of the Context Beliefs About Teaching Science (CBATS) Instrument*. A paper presented at the annual meeting of the National Association for Research in Science Teaching. San Diego, California, April 20, 1998.
38. Haney, J. J., & Lumpe, A. T. *Profiling the Personal Agency Belief Patterns of K-12 Teachers of Science*. A paper presented at the annual meeting of the National Association for Research in Science Teaching. San Diego, California, April 20, 1998.
39. Lumpe, A. T. *Using Technology to Support Science Inquiry*. A presentation at the Science in the South Illinois Science Teachers Association Conference, Carbondale, Illinois, March 13, 1998.
40. Lumpe, A. T. *Using the Full Option Science System (FOSS) in the K-6 Classroom*. A presentation at the Science in the South Illinois Science Teachers Association Conference. Carbondale, Illinois, March 13, 1998.
41. Haney, J. J., Czerniak, C. M., & Lumpe, A. T. *Constructivist Beliefs About Science Teaching: Perspectives from Teachers, Administrators, Parents, Community Members, and Students*. A paper presented at the annual meeting of the Association for the Education of teachers of Science, Minneapolis, Minnesota, January 8, 1998.
42. Lumpe, A. T., McIntyre, J., Dixon, B. G., & Jackson, J. *Restructuring SIU-C's Elementary Education Program*. A presentation at the Stockman Institute Conference, Charleston, Illinois, October 24, 1997.
43. Czerniak, C. M., & Lumpe, A. T. *Teachers' Beliefs About Using Cooperative Learning in Science*. A paper presented at the annual meeting of the National Association for Research in Science Teaching. Oak Brook, Illinois, March 22, 1997.
44. Lumpe, A. T., *Using the Full Option Science System (FOSS) in the K-6 Classroom*. A presentation at the Science in the South Illinois Science Teachers Association Conference. Carbondale, Illinois, January 24, 1997.

45. Lumpe, A. T., & Haney, J. J. *Using Hypermedia to Enhance Teacher Development*. A paper presented at the annual meeting of the Association for the Education of Teachers of Science, Cincinnati, Ohio, January 10, 1997.
46. Haney, J. J., Czerniak, C. M., Lumpe, A. T., & McArthur, J. *Trends Found in Teachers' Beliefs Regarding Science Reform*. A paper presented at the annual meeting of the Association for the Education of Teachers of Science, Cincinnati, Ohio, January 10, 1997.
47. Beck, J., Czerniak, C. M. & Lumpe, A. T. *Teachers' Beliefs and Their Implementation of Constructivism in the Classroom*. A paper presented at the annual meeting of the Association for the Education of Teachers of Science, Cincinnati, Ohio, January 10, 1997.
48. Lumpe, A. T., Haney, J. J., & Czerniak, C. M. *Teacher Beliefs and Their Intent to Implement Science-Technology-Society (STS) in the Classroom*. A paper presented at the annual meeting of the National Association for Research in Science Teaching, St. Louis, Missouri, March 31-April 3, 1996.
49. Czerniak, C. M., Lumpe, A. T., & Grafton, T. *Relationship Between Teachers' Beliefs and Science Education Reform Strands: What are Teachers' Beliefs About Thematic Units?* A paper presented at the annual meeting of the National Association for Research in Science Teaching, St. Louis, Missouri, March 31-April 3, 1996.
50. Lumpe, A. T., & Haney, J. J. *Science Teacher Staff Development Ideas for Reform*. A presentation at the National Science Teachers Association Annual Convention, St. Louis, Missouri, March 30, 1996.
51. Lumpe, A. T., Haney, J. J., Shuett, S. *The Northwest Ohio School Science Project*. A presentation at the Science Education Council of Ohio, Columbus, Ohio, February 16, 1996.
52. Lumpe, A. T., & Haney, J. J. *Science Teacher Staff Development Strategies for Reform: Addressing Teachers' Beliefs*. A paper presented at the annual meeting of the Association for the Education of Teachers of Science, Seattle, Washington, January 11-13, 1996.
53. Beck, J. A., & Lumpe, A. T. *Teachers' Beliefs and the Implementation of Personal Relevance in the Classroom*. A paper presented at the annual meeting of the Association for the Education of Teachers of Science, Seattle, Washington, January 11-13, 1996.
54. Lumpe, A. T., & Czerniak, C. M. *Teachers' Beliefs and Their Implementation of Scientific Uncertainty in the Classroom*. A paper presented at the annual meeting of the National Association for Research in Science Teaching, San Francisco, California, April 22-25, 1995.

55. Czerniak, C. M., & Lumpe, A. T. *Relationship Between Teacher Beliefs and Science Education Reform*. A paper presented at the annual meeting of the National Association for Research in Science Teaching, San Francisco, California, April 22-25, 1995.
56. Lumpe, A. T., Haney, J. J., Vernile, L., Roadruck, M., Shelt, K. *Classroom Assessment to Enhance Proficiency Test Performance*. A presentation at the Education Symposium, Toledo, Ohio, April 6, 1995.
57. Lumpe, A. T., & Grafton, J. *Science Reform in Bryan, Ohio*. A presentation at the Science Education Council of Ohio Convention, Dayton, Ohio, February 17, 1995.
58. Beck, J., Haney, J. J., & Lumpe, A. T. *We Dare You to Drink This Water*. A presentation at the Science Education Council of Ohio Convention, Dayton, Ohio, February 17, 1995.
59. Lumpe, A. T., & Haney, J. J. *Teachers' Staff Development Needs and Perceptions Concerning Science Education Reform Issues*. A paper presented at the annual meeting of the Association of Educators of Teachers of Science, Charleston, West Virginia, January 5-8, 1995.
60. Lumpe, A. T., & Czerniak, C. M. *Science Fair Success in Ohio*. A paper presented at the annual meeting of the Ohio Academy of Science, Toledo, Ohio, April 22-23, 1994.
61. Kirsch, J., & Lumpe, A. T. *Scientific Literacy Content of Commonly Used High School Biology Textbooks*. A paper presented at the annual meeting of the Ohio Academy of Science, Toledo, Ohio, April 22-23, 1994.
62. Lumpe, A. T., Staver, J. R. *Peer Collaboration and Concept Development*. A presentation at the National Science Teachers Association Annual Convention, Anaheim, California, April 1, 1994.
63. Lumpe, A. T., & Czerniak, C. *Factors Related to Science Fair Success*. A paper presented at the annual meeting of the National Association for Research in Science Teaching, Anaheim, California, March 27, 1994.
64. Czerniak, C., & Lumpe, A. T. *Predictors of Science Fair Participation Using the Theory of Planned Behavior*. A paper presented at the annual meeting of the National Association for Research in Science Teaching, Anaheim, California, March 27, 1994.
65. Lumpe, A. T., Haney, J. *How Do I Teach This Nature of Science Stuff Anyway?* Science Education Council of Ohio Convention, Columbus, Ohio, February 12, 1994.
66. Lumpe, A. T., & Staver, J. R. *Peer Collaboration and Concept Development*. A paper presented at the annual meeting of the National Association for Research in Science Teaching, Atlanta, Georgia, April 15-19, 1993.

67. Wang, J., Rong, R., Oliver, J. S., Lumpe, A. T. *A Longitudinal Study of American Youth: Students' Attitudes Toward Science, Math, English, and Social Studies*. A paper presented at the annual meeting of the National Association for Research in Science Teaching, Atlanta, Georgia, April 15-19, 1993.
68. Lumpe, A. T., & Krestan, R. M. *Everything You Wanted Your Students to Know About the Nature of Science but were Afraid to Teach*. National Science Teachers Association, Kansas City, Missouri, April 1-4, 1993.
69. Lumpe, A. T. *Using Your Crystal Ball to Predict the Future of a Successional Hardwood Forest*. Science Education Council of Ohio Convention, Cleveland, Ohio, February 18-20, 1993.
70. Lumpe, A. T., Krestan, R. M., Wang, J. *Gender Differences in Predicting 10th Grade Students' Attitudes Toward Science: Results from the Longitudinal Study of American Youth*. A paper presented at the annual meeting of the National Association for Research in Science Teaching, Cambridge, Massachusetts, March 21-25, 1992.
71. Wang, J., Oliver, J. S., Lumpe, A. T. *The Relationship among Students' Attitudes Toward Science, Math, English, and Social Studies*. A paper presented at the annual meeting of the National Association for Research in Science Teaching, Cambridge, Massachusetts, March 21-25, 1992.
72. Staver, J. R., Lumpe, A. T. *An Analysis of Think-Aloud Protocols of Students' Understanding of the Mole Concept and its Use in Problem Solving*. A paper presented at the annual meeting of the National Association for Research in Science Teaching, Cambridge, Massachusetts, March 21-25, 1992.
73. Krestan, R. M., & Lumpe, A. T. *Everything You Wanted Your Students to Know about the Nature of Science but were Afraid to Teach*. Kansas Association of Teachers of Science annual meeting, Rock Springs Ranch, Kansas, April, 1992.
74. Lumpe, A. T., Scharmann, L. C., Borchers, C. A. *Biology Textbooks...Making the Grade?* National Science Teachers Association National Convention, Boston, Massachusetts, March 26-29, 1992.
75. Lumpe, A. T. *The Educational Philosophies of Graduate Faculty and the Professional Preparation of Science Education Doctoral Students: A Case Study*. A paper presented at the annual meeting of the National Association for Research in Science Teaching, Lake Geneva, Wisconsin, April, 1991.
76. Lumpe, A. T., & Scharmann, L. C. *A Content Analysis of Secondary Biology Laboratory Activities*. A paper presented at the annual meeting of the National Association for Research in Science Teaching, Lake Geneva, Wisconsin, April, 1991.

77. Lumpe, A. T., & Scharmann, L. C. *The Learning Cycle: A Student Interactive Instructional Strategy for the Biological Sciences*. Kansas Association of Teachers of Science annual meeting, Rock Springs Ranch, Kansas, April, 1991.
78. Staver, J. R., & Lumpe, A. T. *A Content Analysis of the Presentation of the Mole Concept in Chemistry Textbooks*. A paper presented at the annual meeting of the National Association for Research in Science Teaching, Lake Geneva, Wisconsin, April, 1991.
79. Lumpe, A. T., & Wang, J. *Attitudes of American Youth: A Look at the Longitudinal Study of American Youth (LSAY)*. A paper presented at the annual meeting of the Southwest Association of Educators of Teachers of Science. Colorado Springs, Colorado, January 10-12, 1991.
80. Manney, T., Manney, M., Lumpe, A. T., Johnson, B. *Using Yeast Experiments to Take the Mystery out of Genetics*. National Science Teachers Association Area Convention, Kansas City, Missouri, October, 1990.
81. Lumpe, A. T. *The Kansas Junior Academy of Science and Student Research*. Twelfth Annual Rural and Small Schools Conference, Manhattan, Kansas, October, 1990.
82. Lumpe, A. T., & Scharmann, L. C. *The Kansas Junior Academy of Science and Student Research*. Kansas Association of Teachers of Science annual meeting, Rock Springs Ranch, Kansas, April 1990.
83. Lumpe, A. T. *An Analysis of the Presentation of the Mole Concept in Chemistry Textbooks*. A paper presented at the 122nd Annual Meeting of the Kansas Academy of Science. Manhattan, Kansas, March, 1990.
84. Lumpe, A. T. *Kansas Forest Research*. Kansas Association of Science Teachers annual meeting, Rock Springs Ranch, KS, April 1989.
85. Lumpe, A. T. *Kansas Forest Research*. Kansas Association of Science Teachers annual meeting, Rock Springs Ranch, KS, April, 1988.

PROFESSIONAL ORGANIZATION MEMBERSHIPS

- Association for Supervision and Curriculum Development (ASCD)
- Association for Science Teacher Education (ASTE)
- Multimedia Educational Resource for Learning and Online Teaching (MERLOT)
- Sloan-C Consortium for Online Learning
- Washington State Association for Supervision and Curriculum Development (WSASCD)

SERVICE

Appointments and Boards

1. Vice-President of the Board, Bluesky Church, Bellevue, Washington, 2004 – present.
2. Board of Directors, Washington Association for Supervision and Curriculum Development (WSASCD), 2008 – present.
3. Associate Editor, *Journal of Science Teacher Education*, 2003 – present.
4. Reviewer, *International Journal of Science Education*, 2010 - present.
5. Institute for Systems Biology, Center for Science Inquiry Advisory Committee, 2007 – 2010.
6. 2007 Annual Conference Co-Chair, Washington State Association for Supervision and Curriculum Development (WSASCD), 2006 – 2007.
7. Reviewer for *Science Education*, 2006-2007.
8. Review Board for the *Journal of Research in Science Teaching*, 2001-2004.
9. Review Board for *Journal of Science Teacher Education*, 2001 – 2004.
10. Annual Meeting Strand Coordinator (Strand 4b – Inservice Teacher Education), National Association for Research in Science Teaching (NARST), 2002 – 2004.

11. *Journal of Research in Science Teaching* Award Committee, National Association for Research in Science Teaching (NARST), 1998 - 2001.
12. Science Teacher Education Committee, National Science Teachers Association (NSTA), 1998 – 2000.
13. Review Board for *School Science and Mathematics Journal*, 1992 - 2001.
14. Review Board for the *Electronic Journal of Science Education*, 1996 - 2001.
15. Program Committee, National Association for Research in Science Teaching (NARST), 1998 - 2002.
16. Planning Committee, Science in the South Conference, Illinois Science Teachers Association (ISTA), 1997 - 2001.
17. President, Giant City Consolidated School Board (popularly elected), Carbondale, Illinois, 1997 – 2001.
18. Membership Committee, School Science and Mathematics Association (SSMA), 1996 - 1999.
19. Review Board for the *Journal of Elementary Science Education*, 1998 – 1999.
20. Annual Meeting Strand Coordinator (Strand 4 – Teacher Education), National Association for Research in Science Teaching (NARST), 1995 - 1998.
21. Committee on Dissemination and Implementation of Science Standards and Benchmarks. Association for the Education of Teachers of Science (AETS), 1996 - 1997.
22. Program Committee, National Association for Research in Science Teaching (NARST), 1993 - 1994.
23. Review of proposed book, *Understanding and Teaching the Intuitive Mind* for Lawrence Erlbaum Associates, Inc., Publishers, 1997.
24. Reviewer for the *Ohio Journal of Science*, 1996.
25. Reviewer for the *Teacher Development Modules* (TDM) developed by BSCS, 1994 - 1996.
26. Proposal reviewer for the Teacher Enhancement program of the National Science Foundation (NSF), October, 1993.

Program Evaluations

1. External Evaluator for the *Math, Science & Technology and Student Support at Three Secondary Schools* grant funded by the Department of Defense Educational Activity, Clover Park School District, Clover Park, WA, 2010 – present.
2. External Evaluator for the *Systems Education Approach to Science (SEA-Science)* Project funded by the Howard Hughes Medical Institute to the Institute for Systems Biology, Seattle, WA, 2007 – 2009.
3. External Evaluator for the *IMAGINE 2* Project funded by the Howard Hughes Medical Institute to the University of Toledo, Toledo, OH, 2007 – 2009.
4. External Evaluator for *Project PRISM* funded by the National Science Foundation to Bowling Green State University, Bowling Green, Ohio, 2003-2006.
5. External Evaluator for the *Collaboratory Project* funded by the Illinois State Board of Education to Northwestern University, Evanston, Illinois, 2005.
6. External Evaluator for the *NCLB Educational Technology* project funded by the Illinois State Board of Education to Regional Office of Education #12, Robinson, Illinois, 2004-2005.
7. External Evaluator for the *NCLB Educational Technology* project funded by the Illinois State Board of Education to Regional Office of Education #21, Benton, Illinois, 2004-2005.
8. External Evaluator for *Project COSMOS* funded by the Ohio Board of Regents to Bowling Green State University, Bowling Green, Ohio, 2002-2004.
9. External Evaluator for *Project EXCITE (Environmental Health Science eXplorations through Cross-disciplinary & Investigative Team Experiences)* funded by the National Institutes of Health to Bowling Green State University, Bowling Green, Ohio, 2001 - 2004.
10. External Evaluator for *Maumee River GLOBE* Project funded by the Ohio Board of Regents to Bowling Green State University, Bowling Green, Ohio, 2001 - 2002.
11. External Evaluator for *Blazing Learning Trails Replication* funded by the Illinois State Board of Education Technology Literacy Challenge Fund to Regional Office of Education #21, Benton, Illinois, 2001-2002.
12. External Evaluator for *Toledo Area Partners in Education: Support Teachers as Resources To Improve Elementary Science (TAPESTRIES)* funded by the National Science Foundation to the University of Toledo, Toledo, Ohio, 1998 - 2002.
13. External Evaluator for *Project LEAP II* funded by the Ohio Board of Regents to Bowling Green State University, Bowling Green, Ohio, October, 1997 - 1999.

14. External Evaluator for *Project LEAP* funded by the Ohio Board of Regents to Bowling Green State University, Bowling Green, Ohio, October, 1996 - 1998.

WORKSHOP AND INSERVICE ACTIVITIES

1. Lumpe, A. T. *Science Inquiry*. A workshop for teachers sponsored by the Olympia School District, Olympia, Washington, September 29, 2010.
2. Lumpe, A. T. *Science Inquiry*. A workshop for teachers sponsored by the South Whidbey Island School District, Langley, Washington, September 24, 2010.
3. Lumpe, A. T. *Science Inquiry*. A workshop for teachers sponsored by the Olympia School District, Olympia, Washington, September 22, 2010.
4. Sheridan, C. & Lumpe, A. *Facilitator's Training for FOSS*. Tacoma, Washington, February 26, 2010.
5. Sheridan, C. & Lumpe, A. *Science Inquiry and Assessment using the Full Option Science System*. A workshop for Bethel School District teachers, Graham, Washington, August 17-18, 2009
6. Sheridan, C. & Lumpe, A. *Full Option Science System Northwest Institute*, A workshop for K-6 teachers, Federal Way, Washington, August 4-5, 2009
7. Sheridan, C. & Lumpe, A. *Elementary Science Assessment*, A workshop for Clover Park School District teachers, Lakewood, Washington, June 29, 2009.
8. Wicks, D. & Lumpe, A. *Lecture Capture Technologies: Jing & Camtasia Relay*. A workshop for Seattle Pacific University faculty members. Seattle, Washington, March 24, 2009.
9. Wicks, D. & Lumpe, A. *Minimalist approaches to preventing death by PowerPoint*. A workshop for Seattle Pacific University faculty members. Seattle, Washington, March 23, 2009.
10. Wicks, D. & Lumpe, A. *Lecture Capture Technologies: Jing & Camtasia Relay*. A workshop for Seattle Pacific University faculty members. Seattle, Washington, December 17, 2008.
11. Wicks, D. & Lumpe, A. *Minimalist approaches to preventing death by PowerPoint*. A workshop for Seattle Pacific University faculty members. Seattle, Washington, December 17, 2008.

12. Lumpe, A. T. *Science Inquiry for Teacher Leaders*. A workshop for teachers in Bethel School District, Bethel, Washington, November 17, 2008.
13. Lumpe, A. T. *Effective Science Programs*. A workshop for teachers in Cupertino Unit District, Cupertino, California, September 20, 2008.
14. Lumpe, A. T. *Science Teacher Leader Conference*. A workshop for teachers in Northshore School District, Bothell, Washington, August 20-21, 2008.
15. Lumpe, A. T. *Science Teacher Leader Institute*. A workshop for teachers in Bethel School District, Bethel, Washington, August 11-12, 2008.
16. Lumpe, A. T. & Sheridan, C. *Science Inquiry*. A workshop for teachers sponsored by the Education Service District (ESD) 101, Spokane, Washington, May 20, 2008.
17. Lumpe, A. T. *Inquiry in Secondary School Science Programs*. A workshop for teachers in Clover Park School District, Lakewood, Washington, January 28, 2008.
18. Lumpe, A. T. *Inquiry in Elementary School Science Programs*. A workshop for teachers in Clover Park School District, Lakewood, Washington, January 22, 2008.
19. Lumpe, A. T. *Full Option Science System (FOSS) Magnetism and Electricity*. A workshop for teachers in Meridian School District, Everson, Washington, October 25, 2007.
20. Lumpe, A. T. “*Full Option Science System (FOSS) Magnetism and Electricity*.” A workshop for teachers in Renton School District, Renton, Washington, August 27, 2007.
21. Lumpe, A. T. *Planning and Implementing Science Programs*. A presentation to the Northwest Full Option Science System (FOSS) Summer Institute, Olympia, Washington, August 3, 2007.
22. Lumpe, A. T. *Planning and Implementing Science Programs*. A presentation to the Northwest Full Option Science System (FOSS) Summer Institute, Everett, Washington, July 27, 2007.
23. Lumpe, A. T. *2nd Summer Science Institute*. A workshop for teachers of the Seattle Archdiocese Schools, Seattle, Washington, July 30 – August 10, 2007.
24. Lumpe, A. T. *Full Option Science System (FOSS) Human Body*. A workshop for teachers in Clover Park School District, Lakewood, Washington, June 26, 2007.
25. Lumpe, A. T. *Planning and Implementing Effective Science Programs*. A presentation to Principals and Administrators of the Oakland School District, Oakland, California, June 20, 2007.

26. Lumpe, A. T. *Science Teacher Leadership*. A workshop for the Science Educator's Network (SEN), Institute for Systems Biology, Seattle, Washington, May 12, 2007.
27. Lumpe, A. T. *Full Option Science System (FOSS) Measurement*. A workshop for teachers in Renton School District, Renton, Washington, October 3, 2006.
28. Lumpe, A. T. *Full Option Science System (FOSS) Structures of Life*. A workshop for teachers in Renton School District, Renton, Washington, September 18, 2006.
29. Lumpe, A. T. *Full Option Science System (FOSS) Solids and Liquids*. A workshop for teachers in Everett School District, Everett, Washington, August 30, 2006.
30. Lumpe, A. T. *Planning and Implementing Science Programs*. A presentation to the Northwest Full Option Science System (FOSS) Summer Institute, Newcastle, Washington, August 2, 2006.
31. Lumpe, A. T. *Summer Science Institute*. A workshop for teachers of the Seattle Archdiocese Schools, Seattle, Washington, July 31 – August 11, 2006.
32. Lumpe, A. T. *Using Inspiration and Kidspiration Software to Enhance Student Learning*. A presentation for the Renton School District Technology Liaisons, Renton, Washington, August 29, 2005.
33. Lumpe, A. T. *Using Inspiration and Kidspiration Software to Enhance Student Learning*. A presentation for the Renton School District Summer Technology Academy, Renton, Washington, June 29, 2005.
34. Lumpe, A. T. *College of Education and Human Services Teacher of the Year Faculty Panel*. Carbondale, Illinois, March 1, 2002.
35. Lumpe, A. T. *Engaged Learning and Technology Integration*. A presentation for the Franklin/Williamson Regional Office of Education, Carterville, Illinois, October 9, 11, 12, 15, 2001.
36. Lumpe, A. T. *Full Option Science System (FOSS) Models and Designs*. A workshop for 4th and 5th grade students at Giant City School, Carbondale, Illinois, May 24-30, 2001.
37. Lumpe, A. T. *Engaged Learning and Technology Integration*. A presentation for the Franklin/Williamson Regional Office of Education, Marion, Illinois, October 2-5, 2000.
38. Lumpe, A. T. *A Balancing Act: Making Time for Publishing*. A panel presentation for new faculty in the College of Education at Southern Illinois University, Carbondale, Illinois, April 20, 2000.

39. Lumpe, A. T. *Engaged Learning and Technology Integration*. A presentation for the Woodford County Special Education Association, Metamora, Illinois, February 26, 2000.
40. Lumpe, A. T. *Engaged Learning and Technology Integration*. A presentation for the Egyptian School District, Marion, Illinois, January 27, 2000.
41. Lumpe, A. T. *Engaged Learning and Technology Integration*. A presentation for the Fairfield High School District, Marion, Illinois, January 26, 2000.
42. Lumpe, A. T. *Engaged Learning and Technology Integration*. A presentation for Hardin County Schools, Marion, Illinois, January 25, 2000.
43. Lumpe, A. T. *Engaged Learning and Technology Integration*. A presentation for Gallatin County Schools, Marion, Illinois, January 24, 2000.
44. Lumpe, A. T. *Engaged Learning and Technology Integration*. A presentation for the Rockford Public Schools, Rockford, Illinois, January 18, 2000.
45. Lumpe, A. T. *Engaged Learning and Technology Integration*. A presentation for the Franklin/Williamson Regional Office of Education, Marion, Illinois, October 5-8, 1999.
46. Lumpe, A. T. *Graduate Assistant Orientation*. A presentation for new graduate students. Carbondale, Illinois, August 17, 1999.
47. Lumpe, A. T. *Using Technology to Enhance Student Learning*. A workshop for the Math Connections Teacher Workshop, Carbondale, Illinois, July 13, 1999.
48. Lumpe, A. T. *Planning for Engaged Learning Science Units*. A workshop for the Franklin/Williamson Regional Office of Education, Marion, Illinois, March 10, 1999.
49. Lumpe, A. T. *Implementing Engaged Learning Principles into Classroom Instruction*. A workshop for Ewing-Northern School District teachers, Ewing, Illinois, March 3, 1999.
50. Lumpe, A. T. *The Full Option Science System (FOSS)*. A workshop for Franklin/Williamson Regional Office of Education, Marion, Illinois, December 4, 1998.
51. Lumpe, A. T. *Using Digital Cameras to Support Science and Mathematics Instruction*. A workshop for the Regional Office of Education #21, Mt. Vernon, Illinois, October 30, 1998.
52. Lumpe, A. T. *Using Spreadsheets to Support Science Inquiry Investigations*. A workshop for the Carterville Unit School District, Carterville, Illinois, October 27, 1998.
53. Lumpe, A. T. *The Full Option Science System (FOSS)*. A workshop for Jackson/Perry Regional Office of Education, Murphysboro, Illinois, October 23, 1998.

54. Lumpe, A. T. *The Illinois Learning Standards for Science*. A workshop for the Carbondale School District 95, Carbondale, Illinois, October 9, 1998.
55. Lumpe, A. T. *Grant Proposal Writing*. A presentation for the Office of Research Development and Administration New Faculty Orientation, Southern Illinois University, Carbondale, Illinois, October 2, 1998.
56. Lumpe, A. T. *Project-Based Science in the Classroom*. A workshop for the Carterville Unit School District, Carterville, Illinois, September 18, 1998.
57. Lumpe, A.T. *The Illinois Learning Standards for Science*. A workshop for the Marion Unit 2 School District, Marion, Illinois, July 14, 1998.
58. Lumpe, A. T. *Meeting the Illinois Learning Standards for Science*. A workshop for the Jackson-Perry Regional Office of Education, Murphysboro, Illinois, May 6, 1998.
59. Lumpe, A. T. *Lesson Planning for Project-Based Science*. A workshop for the Ewing-Northern School Teachers, Ewing, Illinois, February 27, 1998.
60. Lumpe, A. T. *Engaged Learning*. A workshop for the Anna-Jonesboro High School Teachers, Jonesboro, Illinois, February 23, 1998.
61. Lumpe, A. T. *Using Hypermedia in Support of Project-Based Science*. A workshop for the Ewing-Northern School Teachers, Ewing, Illinois, January 5, 1998.
62. Lumpe, A. T. *Project-Based Science in the Classroom*. A workshop for the Ewing-Northern School Teachers, Ewing, Illinois, October 30, 1997.
63. Lumpe, A. T. *The Full Option Science System (FOSS)*. A workshop for the Ewing-Northern School Teachers, Ewing, Illinois, November 6, 1997.
64. Lumpe, A. T. *Teaching Hands-on/Minds-on Science Using FOSS*. A workshop for the Jackson-Perry County Regional Office of Education, Murphysboro, Illinois, April 8, 1997.
65. Lumpe, A. T. *The Inquiry Nature of Science*. Plant Biology Seminar Presentation, Southern Illinois University at Carbondale, Carbondale, Illinois, February 28, 1997.
66. Lumpe, A. T. *Crossing the Bridge into the 21st Century: Technology in the Science Classroom*. Invited Keynote Speech given at the Northwest Ohio Regional Science Symposium, Bowling Green, Ohio, October 3, 1996.
67. Lumpe, A. T. *The Ohio Science Model*. A presentation at the Black Swamp Educator's Extravaganza, Napoleon, Ohio, June 25, 1996.

68. Lumpe, A. T., & Hartzell, L. *Full Option Science System (FOSS)*. A workshop for Detroit City School Teachers, Detroit, Michigan, April 16, 1996.
69. Lumpe, A. T. *Developing Action Plans for Science Teacher Leadership*. A workshop for Project STAR III, Bowling Green, Ohio, February 29, 1996.
70. Lumpe, A. T. *Science Teacher Leadership: Diagnosing Needs*. A workshop for Project STAR III, Bowling Green, Ohio, February 8, 1996.
71. Lumpe, A. T. *The Full Option Science System (FOSS)*. A workshop for Detroit School District Teachers, Detroit, Michigan, December 5, 1995.
72. Lumpe, A. T. *Science Teacher Leadership: Diagnosing Needs*. A workshop for Project STAR III, Bowling Green, Ohio, December 2, 1995.
73. Lumpe, A. T., & Beck, J. *Alternative Strategies for Science Assessment*. A presentation for Toledo Public Schools High School Science Teachers, Toledo, Ohio, December 4, 1995.
74. Lumpe, A. T. *The Full Option Science System (FOSS)*. A workshop for North Baltimore School Teachers, North Baltimore, Ohio, October 30, 1995.
75. Lumpe, A. T. *The Ohio Science Model and Student Proficiency Testing*. A presentation for the Northwest Ohio Educational Research Council, Findlay, Ohio, October 3, 1995.
76. Lumpe, A. T. *Student Assessment and the Ohio Proficiency Test*. A presentation for Mayfield City School Teachers, Mayfield, Ohio, September 29, 1995.
77. Lumpe, A. T., & Haney, J. J. *The Full Option Science System (FOSS)*. A workshop for Toledo Public School Teachers, Toledo, Ohio, August 22, 1995.
78. Lumpe, A. T. *The Full Option Science System (FOSS)*. A workshop for Macomb County Teachers, St. Clair, Michigan, July 20-21, 1995.
79. Lumpe, A. T., & Haney J. J. *The Full Option Science System (FOSS)*. A workshop for grades preK-6 teachers, Toledo, Ohio, June 19-22, 1995.
80. Lumpe, A. T., & Haney J. J. *The Full Option Science System (FOSS)*. A workshop for grades 3-6 teachers, Bowling Green, Ohio, June 15-16, 1995.
81. Lumpe, A. T. *Oobleck: A GEMS Activity*, Science in the Workplace Workshop for Teachers, Lima, Ohio, June 13, 1995.
82. Lumpe, A. T. *Tree Homes: A GEMS Activity*, Science in the Workplace Workshop for Teachers, Lima, Ohio, June 13, 1995.

83. Lumpe, A. T. *The Ohio Science Model*. Science in the Workplace Workshop for Teachers, Lima, Ohio, June 12, 1995.
84. Lumpe, A. T. *Completing a Science Course of Study*. A workshop for Ottawa Hills Local School Teachers, Ottawa Hills, Ohio, May 24, 1995.
85. Lumpe, A. T. *Completing a Science Course of Study*. A workshop for Oregon City School Teachers, Oregon, Ohio, May 16, 1995.
86. Lumpe, A. T., & Haney, J. J. *Completing a Science Course of Study*. A workshop for Sandusky County School Teachers, Fremont, Ohio, May 12, 1995.
87. Lumpe, A. T. *Performance-Based Assessment and Performance Objectives*. A workshop for Napoleon City School Teachers, Napoleon, Ohio, May 4, 1995.
88. Lumpe, A. T. *Performance-Based Assessment and Performance Objectives*. A workshop for Wauseon Exempted Village School Teachers, Wauseon, Ohio, April 26, 1995.
89. Lumpe, A. T. *Writing Objectives for a New Science Course of Study*. A workshop for Napoleon City School Teachers, Napoleon, Ohio, April 20, 1995.
90. Lumpe, A. T. *Writing Objectives for a New Science Course of Study*. A workshop for Wauseon Exempted Village School Teachers, Wauseon, Ohio, April 10, 1995.
91. Lumpe, A. T., & Haney, J. J. *Completing a Science Course of Study*. A workshop for Sandusky County School Teachers, Fremont, Ohio, April 3, 1995.
92. Lumpe, A. T., & Haney, J. J. *Completing a Science Course of Study*. A workshop for Seneca/Wyandot County School Teachers, Tiffin, Ohio, March 17, 1995.
93. Lumpe, A. T., & Haney, J. J. *Completing a Science Course of Study*. A workshop for Putnum County School Teachers, Ottawa, Ohio, March 16, 1995.
94. Lumpe, A. T. *The Four Strands of the Ohio Science Model*. A workshop for Wauseon Exempted Village School Teachers, Wauseon, Ohio, March 13, 1995.
95. Lumpe, A. T. *Writing Objectives for a New Science Course of Study*. A workshop for Toledo Public School K-6 Teachers, Toledo, Ohio, March 9, 1995.
96. Lumpe, A. T. *Developing a Science Course of Study*. A workshop for Erie County School Teachers, Huron, Ohio, March 2, 1995.
97. Lumpe, A. T. *The Four Strands of the Ohio Science Model*. A workshop for Napoleon City School Teachers, Napoleon, Ohio, March 1, 1995.

98. Lumpe, A. T. *Developing a Science Course of Study*. A workshop for Oregon City School Teachers, Oregon, Ohio, March 1, 1995.
99. Lumpe, A. T. *Constructivism in Science Teaching*. A workshop for teachers in the Great Lakes Project, Oregon, Ohio, February 21, 1995.
100. Lumpe, A. T. *Getting Acquainted with Science Reform*. A workshop for Wauseon Exempted Village School Teachers, Wauseon, Ohio, February 13, 1995.
101. Lumpe, A. T., Haney, J.J. *Writing Objectives for a New Science Course of Study*. A workshop for Seneca/Wyandot County Teachers, Tiffin, Ohio, February 10, 1995.
102. Lumpe, A. T. *Writing Objectives for a New Science Course of Study*. A workshop for Oregon City School Teachers, Oregon, Ohio, February 9, 1995.
103. Lumpe, A. T., Haney, J.J. *Assessment Strategies for Science*. A workshop for Erie County School Teachers, Huron, Ohio, February 3, 1995.
104. Lumpe, A. T., Haney, J.J. *Assessment Strategies for Science*. A workshop for Sandusky County School Teachers, Fremont, Ohio, February 2, 1995.
105. Lumpe, A. T. *Getting Acquainted with the Science Reform*. A workshop for Napoleon City School Teachers, Napoleon, Ohio, February 1, 1995.
106. Lumpe, A. T. *The Ohio Science Model*. A workshop for Toledo Public School K-6 Teachers, Toledo, Ohio, January 30, 1995.
107. Lumpe, A. T. *Assessment Strategies for Science*. A workshop for Sandusky County Teachers, Fremont, Ohio, January 24, 1995.
108. Lumpe, A. T. *Adopting Curriculum to Support a New Science Course of Study*. A workshop for Seneca/Wyandot County Teachers, Tiffin, Ohio, January 20, 1995.
109. Lumpe, A. T. *Getting Acquainted with the Science Reform*. A workshop for Toledo Public School K-6 Teachers, Toledo, Ohio, January 19, 1995.
110. Lumpe, A. T. *Preparing a New Science Course of Study*. A workshop for Holgate Local School District Teachers, Holgate, Ohio, January 18, 1995.
111. Lumpe, A. T. *The Ohio Science Model*. A workshop for teachers in the Great Lakes Project, Oregon, Ohio, January 17, 1995.
112. Lumpe, A. T. *Assessment Strategies for Science*. A workshop for Oregon City School Teachers, Oregon, Ohio, January 12, 1995.

113. Lumpe, A. T., & Haney, J. J. *Developing a K-12 Science Scope and Sequence*. A workshop for Sandusky County Teachers, Fremont, Ohio, December 8, 1994.
114. Lumpe, A. T., *Developing a K-12 Science Scope and Sequence*. A workshop for Erie County Teachers, Huron, Ohio, December 2, 1994.
115. Lumpe, A. T. *Developing a K-12 Science Scope and Sequence*. A workshop for Oregon City School Teachers, Oregon, Ohio, November 29, 1994.
116. Lumpe, A. T. *The Ohio Science Model*. A workshop for Oregon City School Teachers, Oregon, Ohio, November 23, 1994.
117. Lumpe, A. T., & Weber, B. *Math and Science Assessment: New Strategies for Classrooms and School Districts*. A SciMaTEC workshop for teachers, Toledo, Ohio, November 17, 1994.
118. Lumpe, A. T. *Getting Acquainted with the Science Reform*. A workshop for Sandusky County K-12 Teachers, Fremont, Ohio, November 17, 1994.
119. Lumpe, A. T. *Getting Acquainted with the Science Reform*. A workshop for Williams County Teachers, Bryan, Ohio, November 9, 1994.
120. Lumpe, A. T. *Preparing for the New Science Course of Study*. A workshop for Erie County Teachers, Huron, Ohio, November 3, 1994.
121. Lumpe, A. T., & Haney, J. J. *Developing a K-12 Science Scope and Sequence*. A workshop for Putnum County Teachers, Ottawa, Ohio, November 1, 1994.
122. Lumpe, A. T. *Getting Acquainted with the Science Reform*. A workshop for Oregon City Schools Teachers, Oregon, Ohio, October 27, 1994.
123. Lumpe, A. T. *Getting Acquainted with the Science Reform*. A workshop for Williams County Teachers, Bryan, Ohio, October 26, 1994.
124. Lumpe, A. T., & Haney, J. J. *Developing a K-12 Science Scope and Sequence*. A workshop for Seneca/Wyandot County Teachers, Tiffin, Ohio, October 21, 1994.
125. Lumpe, A. T., *An Update on Ohio's Science Model*. A presentation at the Ottawa County-Port Clinton City Inservice Day, Oak Harbor, Ohio, October 17, 1994.
126. Lumpe, A. T., *Science Teaching in a New Era*. A workshop for Crestline Exempted Village School Teachers, Crestline, Ohio, October 14, 1994.
127. Lumpe, A. T., & Haney, J. J. *Preparing for the New Science Course of Study*. A workshop for Seneca/Wyandot County Teachers, Republic, Ohio, October 10, 1994.

128. Lumpe, A. T. *Piloting New Science Curriculum*. A workshop for Bryan City Teachers, Bryan, Ohio, October 7, 1994.
129. Lumpe, A. T., & Haney, J.J. *Getting Acquainted with the Science Reform*. A workshop for Seneca/Wyandot County Teachers, Tiffin, Ohio, September 26, 1994.
130. Lumpe, A. T., & Haney, J.J. *Getting Acquainted with the Science Reform*. A workshop for Putnum County Teachers, Ottawa, Ohio, September 21, 1994.
131. Lumpe, A. T., & Kirsch, J. *Using the Full Option Science System (FOSS)*. A workshop for Sandusky County teachers, Gibsonburg, Ohio, September 7, 1994.
132. Lumpe, A. T., & Kirsch, J. *Preparing to Restructure Science Curriculum and Instruction*. A workshop for Erie County science teachers, Huron, Ohio, August 16-17, 1994.
133. Lumpe, A. T., & Kirsch, J. *On the Road to Science Curriculum Success*. A workshop for Richland County science teachers, Mansfield, Ohio, August 15, 1994.
134. Lumpe, A. T. *The Ohio Science Model: Strategies for Implementation Success*. A workshop for Richland County school administrators, Columbus, Ohio, August 10, 1994.
135. Lumpe, A. T. *Using Spreadsheets to Analyze Data*. A presentation to the Northwest Ohio Project Discovery Mathematics Institute, Toledo, Ohio, July 19, 1994.
136. Lumpe, A. T., & Haney, J. *Preparing Courses of Study for the Ohio Science Model*. A workshop for the Northwest Ohio School Supervisors Association, Findlay, Ohio, May 19-20, 1994.
137. Lumpe, A. T., & Kirsch, J. *Basics of the Ohio Science Model*. A workshop for teachers in Erie County, Huron, Ohio, April 28, 1994.
138. Lumpe, A. T., & Kirsch, J. *Basics of the Ohio Science Model*. A workshop for secondary teachers in Hancock County, Findlay, Ohio, April 19, 1994.
139. Lumpe, A. T., & Kirsch, J. *Basics of the Ohio Science Model*. A workshop for elementary teachers in Hancock County, Findlay, Ohio, April 18, 1994.
140. Lumpe, A. T. *The Ohio Science Model*. A presentation at the Education Symposium, Toledo, Ohio, April 14, 1994.
141. Lumpe, A. T. *Selecting Science Curriculum Materials*. A workshop for the Bryan Science Committee, Bryan, Ohio, January 21, 1994.
142. Lumpe, A. T. *Writing Courses of Study for the Ohio Science Model*. A workshop for the Northwest Ohio School Supervisors Association and the Northwest Ohio Association of Supervisors and Curriculum Developers, Findlay, Ohio, March 11, 1994.

143. Lumpe, A. T. *Writing Courses of Study for the Ohio Science Model*. A workshop for the Ottawa Hills City Schools Science Department, Ottawa Hills, Ohio, February 18, 1994.
144. Lumpe, A. T. *Writing Courses of Study for the Ohio Science Model*. A workshop for the Bryan Science Committee, Bryan, Ohio, January 21, 1994.
145. Lumpe, A. T., Haney, J., & Kirsch, J. *The Ohio Science Model*. A SciMaTEC workshop, Toledo, Ohio, January 10, 11, & 12, 1994.
146. Lumpe, A. T. *Preparing Science Activities Which Match the Ohio Science Model*. A Workshop for the Bryan Science Committee, Bryan, Ohio, November 16, 1993.
147. Lumpe, A. T. *The New Ohio Science Model*. A Workshop for the Bryan Science Committee, Bryan, Ohio, October 15, 1993.
148. Lumpe, A. T. *Setting the Stage for District-Wide Reform in Science Education*. A Workshop for the Bryan Science Committee, Bryan, Ohio, September 9, 1993.
149. Lumpe, A. T. *Preparing for the State Model in Science Education*. Workshop for the Fall Inservice of Seneca-Wyandot County Office of Education, Old Fort, Ohio, October 11, 1993.
150. Krestan, R. M., Lumpe, A. T., Shroyer, M. G., & Staver, J. R. *Science and Technology: Investigating Human Dimensions. BSCS Middle School Program*. Junction City School District Middle School Science Teachers, Manhattan, Kansas, July 20-24, 1992.