

## CURRICULUM VITAE

### **Michael L. Bentley**

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#### **Education**

- 1985 Ed.D. University of Virginia, Science Education  
1972 M.S. University of Pennsylvania, Elementary Education  
1968 B.S. King's College (PA), Biology, maxima cum laude  
Certificate for semester coursework at the University of Leeds, England, 1967

#### **Professional**

- 2008 - Adjunct Professor, Mary Baldwin College, Staunton, Virginia  
2007 - Adjunct Professor, Radford University, Radford, Virginia  
2006 - Adjunct Associate Professor, Plant Sciences Department, University of Tennessee, Knoxville  
2002- Adjunct Professor, Hollins University, Roanoke, Virginia  
2002-2006 University of Tennessee, Knoxville, Tennessee  
Associate Professor, Science Education (retired)  
1982- Adjunct Professor, School of Continuing and Professional Studies, University of Virginia  
1985-2001 Virginia Polytechnic Institute and State University, Blacksburg, Virginia  
1996-2001, Associate Professor, Science Education  
1985-87, Assistant Professor, Curriculum and Instruction  
1987-1996 National-Louis University, Evanston, Illinois  
1991-96, Associate Professor, Science Education  
1987-90, Assistant Professor  
1990-1991 Southwest Virginia Governor's School for Science, Mathematics and Technology, Dublin, Virginia - Founding Director  
1981- Consultant related to curriculum, instruction, assessment, and evaluation in science and environmental education.  
1981-84 University of Virginia, Charlottesville, Virginia  
Acting Assistant Professor, Curriculum and Instruction  
1982-84 - Director, Field-based M.Ed. Program  
1980-1981 Science Museum of Western Virginia, Roanoke, Virginia - Assistant Director  
1979-1980 Virginia Department of Education, Richmond, Virginia - Supervisor of Science  
1978-1979 Hollins University, Roanoke, Virginia - Assistant Professor of Education  
1977 Augusta County Schools, Virginia, Project TREES Program, Counselor.  
1973-1976 Teacher, intermediate grades: Wasena School; 1980: Garden City School, Roanoke, Virginia  
1969-1973 Teacher: middle school science; high school biology, Yeadon High School, William Penn School District, Lansdowne, Pennsylvania

#### **Interests**

Teacher education and professional development; curriculum and instruction in science and environmental education; philosophical and psychological foundations of education; informal (museum) education; international education.

#### **Publications**

Books, Chapters in Books, and Monographs:

- Ebert, E., Ebert, C. & Bentley, M. (accepted for publication). *An Educator's Field Guide*. Thousand Oaks, CA: Corwin Press.
- Bentley, M.L. & Fleury, S. (accepted for publication). Teacher Education and the Nature of Science: Of Starting Points and Destinations. In W. F. McComas (Ed.). *The Nature of Science in Science Education: Rationales and Strategies*, 2<sup>nd</sup> ed. Dordrecht, The Netherlands: Kluwer Academic Publishers.
- Fleury, S.C., & Bentley, M.L. (2008). Pedagogy. In S. Mathison & E.W. Ross (Eds.). *Battleground Schools*. Westport, CT: Greenwood Press, pp. 473-483.
- Bentley, M.L., Ebert, C., & Ebert, E. (2007). *The Natural Investigator: A Constructivist Approach to Teaching Elementary and Middle School Science*. (J. Goh, Trans.). Singapore: Cengage Learning. (Original work published in 2000).
- Bentley, M.L. (2007). Community-Connected Education: Southwest Virginia's New Museum High School. In B. Lord & G. Lord (Eds.), *The Manual of Museum Education*. Walnut Creek, CA: AltaMira Press, pp. 83-94.
- Bentley, M., Ebert, E., & Ebert, C. (2007). *Teaching Constructivist Science, K-8: Nurturing Natural Investigators in the Standards-Based Classroom*. Thousand Oaks, CA: Corwin Press.
- Bentley, M.L. & Hamilton, S.L. (2006). The Inquiry, Integration and Differentiation Project: Professional Development for Middle-level Appalachian Teachers at the University of Tennessee Gardens. In J. Willison & S. Kneebone (Eds.), *The Nature of Success-Success for Nature: Proceedings of the 6<sup>th</sup> International Congress on Education in Botanic Gardens*. Richmond, Surrey, UK: Botanic Gardens Conservation International, Section 3: Reflection on Practice, pp. 1-8.
- Bentley, M.L., Ebert, C., & Ebert, E. (2000). *The Natural Investigator: A Constructivist Approach to Teaching Elementary and Middle School Science*. Belmont, CA: Wadsworth Thomson Learning.
- Bentley, M.L. (1999). Science Education in the New Millennium. In M.J. Benson & J.J. Lesko, (Eds.), *Child and Adolescent Learning in Math and Science: Parents, Teachers, and Communities Working Together*. Blacksburg, VA: Virginia Tech, pp. 34-45.
- Bentley, M.L. (1998). *High School Earth Science Review*. New York: The Princeton Review.
- Bentley, M.L. (1998). Constructivism as a Referent for Science Education. In M. Larochelle, N. Bednarz, & J. Garrison, (Eds.), *Constructivism and Education*. New York: Cambridge University Press, pp. 233-249.
- Bentley, M. & Fleury, S. (1998). Of Starting Points and Destinations: Teacher Education and the Nature of Science. In W. F. McComas, editor, *The Nature of Science in Science Education: Rationales and Strategies*. Dordrecht, The Netherlands: Kluwer Academic Publishers, pp. 277-291.
- Bentley, M., Bloom, S. & Reynolds, V. (1997). Using Community Resources - Integrating Science, Math and Social Studies on a Primary Field Trip to the Grocery Store. In P. Rillero & J. Allison (Eds.), *Creative Childhood Experiences in Mathematics and Science: Projects, Activity Series and Centers for Early Childhood Education*. Columbus, OH: ERIC Clearinghouse for Science, Mathematics, and Environmental Education.

- Bentley, M.L. (1996). *Astronomy Smart, Junior*. New York: The Princeton Review.
- Bentley, M.L. (1995). *Science Timelines: Teacher's Notes (C)*. Melbourne, AU: Mimosa Publications and Crystal Lake, IL: Rigby Education.
- Bentley, M.L. (1996). *Science Timelines: Teacher's Notes (D)*. Melbourne, AU: Mimosa Publications and Crystal Lake, IL: Rigby Education.
- Bentley, M.L. (1996). *Science Timelines: A Multicultural Resource (D)*. Melbourne, AU: Mimosa Publications and Crystal Lake, IL: Rigby Education.
- Bentley, M. & Ingham, D. (1996). *Science Timelines: A Multicultural Resource (A, B)*. Melbourne, AU: Mimosa Publications and Crystal Lake, IL: Rigby Education.
- Bentley, M. & Ingham, D. (1996). *Science Timelines: Teacher's Notes (A, B)*. Melbourne, AU: Mimosa Publications and Crystal Lake, IL: Rigby Education.
- Bentley, M. & Slone, T. (1995). *Science Timelines: A Multicultural Resource (C)*. Melbourne, AU: Mimosa Publications and Crystal Lake, IL: Rigby Education.
- Bentley, M.L. (1991). *Instructor's Guide for College Astronomy*. Phoenix, AZ: Institute for Professional Development.
- Bentley, M.L. (1987). The New Philosophy of Science and the Teaching of Science. In J. Wright (Ed.). *Journal: People to People Science Education Delegation to the People's Republic of China*. Seattle, WA: People to People International, Inc., pp. 114-133.
- Bentley, M. & Ambrose, G. (1972). *Project New School: A Proposal*. Harrisburg, PA: Pennsylvania State Education Association.

Peer-reviewed Journal Articles:

- Pierce, C., Hamilton, S., & Bentley, M.L. (accepted for publication). Garden-Based Learning: A Critical Review of the Literature. *Journal of Environmental Education*.
- Granger, J.N., Yochum, H.M., & Bentley, M.L. (accepted for publication). Development and Implementation of a Standards-Driven, Inquiry-based College Science Curriculum for Future Elementary School Teachers. *Journal of Chemical Education*.
- Mueller, M. & Bentley, M. (2009). Environmental and Science Education in 'Developing Nations': A Ghanaian Approach to Renewing and Revitalizing the Local Community and Ecosystems. *The Journal of Environmental Education*, 40(4), 53 - 64.
- Morgan, S.C., Hamilton, S., & Bentley, M.L., & Myrie, S. (2009). Environmental Education in Botanic Gardens: Exploring Brooklyn Botanic Garden's Project Green Reach. *Journal of Environmental Education*, 40(4), 35-52.
- Murphy, E., Geller, H., & Bentley, M. (2008). Virginia Earth Science Collaborative Astronomy Course for Teachers. *The Journal of Mathematics and Science: Collaborative Explorations*, 10, 67-84.

- Mulvaney, J., Bentley, M., & Pyle, E. (2008). Meteorology and Climatology: Online Weather Studies. *The Journal of Mathematics and Science: Collaborative Explorations*, 10, 55-65.
- Bentley, M.L. & Alouf, J.L. (2007). A Collaborative Approach to Preparing Pre-Service Elementary Teachers to Teach Science by Inquiry. *Journal of Virginia Science Education*, 2(1), 5-14.
- Bentley, M.L., Fleury, S.C., & Garrison, J.W. (2007). Critical Constructivism for Teaching and Learning in a Democratic Society. *Journal of Thought*, 42(2), 9-22.
- Mueller, M. & Bentley, M. (2007). Beyond the Decorated Landscapes of Educational Reform: Toward Democratic and Environmental Landscapes in Science Education. *Science Education*, 91(2), 321-338.
- Mueller, M. & Bentley, M. (2005, Fall). An aesthetic approach to teaching middle school science. *Tennessee Association of Middle Schools Journal*, 33(2), 2-7. [available online: <http://www.tams.net/Fall05Journal.pdf>].
- Brown, C.L. & Bentley, M.L. (2004). ELLs: Children Left Behind in Science Class. *Academic Exchange Quarterly*, 8(3), 152-157.
- Saurino, D., Bentley, M.L., Glasson, G.E., & Casey, D. (2000). Urban and Rural Students Collaborate: Video Conferencing Technology in Science Teacher Preparation. *Science Education International*, 11(3), 19-25.
- Bentley, M.L. (2000). Improvisational Drama and the Nature of Science. *Journal of Science Teacher Education*, 11(1), 63-75.
- Glasson, G.E. & Bentley, M.L. (2000). Epistemological Undercurrents in Scientists' Reporting of Research to Teachers. *Science Education*, 84, 469-485.
- Tomblin, D., & Bentley, M.L. (1998). Colonizing the Red Planet: An Interdisciplinary Activity. *Science Activities*, 35(2): 28-34.
- Schnobrich, J. & Bentley, M.L. (1997). Quality Education is a Family Affair: Elementary School Reform Based upon Collaboration, Community Building, and National Standards. *Illinois Schools Journal*, 76(2), 20-30.
- Bentley, M.L. (1995). *Carpe diem*: Making the Most of the Teachable Moment. *Science Activities*, 32(3), 23-27.
- Bentley, M.L. (1995). U.S. Science Education: Prospects for Reform. *Australian Science Teachers Journal*, 41(3), 20-27.
- Bentley, M.L. (1992). Virginia's First Project 2061 Model Secondary Magnet School: An Example of Educational Reform. *The Virginia Journal of Science*, 43(4), 389-396.
- Bentley, M.L. & Garrison, J.W. (1991). The Role of Philosophy of Science in Science Teacher Education. *Journal of Science Teacher Education*, 2(3), 67-71.
- Bentley, M.L. & Fleury, S.C. (1991). Educating Elementary Science Teachers: Alternative Conceptions of the Nature of Science. *Teaching Education*, 3(2), 57-67.

Garrison, J.W. & Bentley, M.L. (1990). Teaching Scientific Method: The Logic of Confirmation and Falsification. *School Science and Mathematics*, 90(3), 188-197.

Garrison, J.W. & Bentley, M.L. (1990). Science Education, Conceptual Change and Breaking with Everyday Experience. *Studies in Philosophy and Education*, 10(1), 19-35.

Beegle, C., Bentley, M.L., & Bash, J. (1986). Beyond 1986: Education for Survival. *The Journal of Curriculum Theorizing*, 7(2), 126-146.

Bentley, M.L. (1984). Creationism Through the Backdoor. *Journal of Science, Technology, and Human Values*, 9(4), 49-53.

Bentley, M.L. (1981). On the Teaching of Origins. *Virginia Journal of Science*; Reprinted in *Today's Education* (May-June, 1981).

Bentley, M.L. (1979). Field Trip Stream Studies. *Science Activities*, 16(2), 8-11.

#### Technical Reports and Evaluations

Bentley, M. L. (2008). An Evaluation of the NCLB Improving Teacher Quality Program: The Hollins University Elementary Science Institute for Teachers. Report to the State Council for Higher Education of Virginia.

Bentley, M. L. (2007). An Astronomy Course for Southwestern Virginia Earth Science Teachers. Evaluation Report to the Virginia Earth Science Collaborative Project, Richmond, Virginia.

Bentley, M. L. (2006). A Meteorology Course for Southwestern Virginia Earth Science Teachers Evaluation Report to the Virginia Earth Science Collaborative Project, Richmond, Virginia.

Bentley, M.L. (2005). "A Standards-Driven, Inquiry-Based Science Curriculum for Future Elementary School Teachers Final Project Evaluation," National Science Foundation CCLI Grant. Report presented to Sweet Briar College, Amherst, Virginia.

Bentley, M.L. (2004). Community High School: 2003-2004 Academic Year Evaluation. Report presented to Board of Directors, Community High School, Roanoke, Virginia.

Bentley, M.L. (2003). Community High School: 2002-2003 Academic Year Evaluation. Report presented to Board of Directors, Community High School, Roanoke, Virginia.

Bentley, M.L. (2003). ). NSF CCLI "Science by Inquiry" Curriculum for Preservice K-6 Teachers Project: Interim Evaluation. Report presented to Sweet Briar College, Amherst, Virginia.

Bentley, M.L. (2003). NSF CCLI Interdisciplinary Environmental Science Curriculum Project: Final Evaluation. Report presented to Sweet Briar College, Amherst, Virginia.

Bentley, M. L. (2003). An Evaluation of the 2002 Dwight D. Eisenhower Program's Hollins Elementary Science Education Institute. Report to the State Council for Higher Education of Virginia.

Bentley, M.L. (2002). Percy Julian and Gwendolyn Brooks Middle School Science Programs: A Curriculum Evaluation. Oak Park (IL) District 97 Public Schools, Illinois.

- Bentley, M.L. (2002). Community High School: 2001-2002 Academic Year Evaluation. Report presented to Board of Directors, Community High School, Roanoke, Virginia.
- Glasson, G.E., Bentley, M.L., & DeWinne, S.D. (1997). Conference Evaluation Report: Enhancing Instruction in Science, Mathematics and Technology, Part I. Blacksburg, VA: College of Human Resources and Education, Virginia Tech.
- Glasson, G.E., & Bentley, M.L. (1997). Connecting Science Research to the Classroom: Conference Evaluation Report, Part II. Blacksburg, VA: College of Human Resources and Education, Virginia Tech.
- Bentley, M.L., Nalbandian, M., Schnobrich, J. & Parfitt, P. (1994). Community Resource Curriculum Development: A Cooperative Effort Project. Chicago, IL: The Chicago Academy of Sciences. (ERIC Document Reproduction Service Nos. 394 829, 394 830, 394 831)
- Bentley, M.L. (1993). Evaluation: Loyola University Undergraduate Core Curriculum in Science. Chicago: School of Arts and Sciences, Loyola University.
- Bentley, M.L. (1989). Evaluation of the Thomas Jefferson High School for Science and Technology, Fairfax County, VA. Richmond, VA: Virginia Department of Education.
- Bentley, M.L. (1989). Evaluation of the Virginia Governor's Schools of Science and Technology. Richmond, VA: Virginia Department of Education.
- Bentley, M.L. (1988). Evaluation of Summer Programs for the Gifted and Talented. Richmond, VA: Virginia Department of Education.
- Bentley, M.L. (1987). Evaluation of the Summer Governor's Schools for Science and Technology. Richmond, VA: Virginia Department of Education.

#### Other Articles and Publications

- Bentley, M.L. (2009, September 20). Anger erupts at Plowshare peace vigil. *Star City Harbinger*. Available <http://starcityharbinger.com/2009/09/20/anger-erupts-at-plowshare-peace-vigil/>.
- Bentley, M.L. (2009, September 1). The energy bill and our future. *Star City Harbinger*. Available <http://starcityharbinger.com/2009/09/01/michael-bentley-the-energy-bill-and-our-future/>.
- Bentley, M.L. (2009, July 24). Archbishops warns of renewed violence in Sudan. *Star City Harbinger*. Available <http://starcityharbinger.com/2009/07/24/michael-bentley-archbishop-warns-of-renewed-violence-in-sudan/>.
- Bentley, M.L. (2009, July 13). Pastors for Peace rally in Roanoke to challenge US blockade of Cuba. *Star City Harbinger*. Available <http://starcityharbinger.com/2009/07/13/michael-bentley-pastors-for-peace-rally-in-roanoke-to-challenge-us-blockade-of-cuba/>.
- Bentley, M.L. (2009). Editor, Special Edition on Nature Deficit Disorder. *Education.com Special Edition*. Available: <http://www.education.com/reference/article/nature-deficit-disorder-plague-our-house/>.
- Bentley, M.L. (2009). Nature Deficit Disorder: A Plague on our House. *Education.com Special Edition*. Available: <http://www.education.com/reference/article/nature-deficit-disorder-plague-our-house/>.

- Bentley, M.L. (2008). Why Parents Should be Wary of Science Fairs. Education.com. Available [http://www.education.com/reference/article/Ref\\_Why\\_Parents\\_Should/](http://www.education.com/reference/article/Ref_Why_Parents_Should/) .
- Bentley, M.L. (2008). NCLB: Bad Education Policy for 21<sup>st</sup> Century Education. Available <http://businessmatters.net/2008/09/nclb-bad-education-policy-for-21st-century-education-a-guest-posting/>.
- Bentley, M.L. (2007). Education Gone Astray: Identifying Ingredients for a Corrective. In M. Ocwieja (Ed.), *2005 Proceedings of the North American Association for Environmental Education*. Available <http://www.naaee.org/conference/conference-history/proceedings-2005-albuquerque-nm/2005-proceedings>.
- Bentley, M. L. (2006, Summer). Moving Growth Points. *International Association of Workshop Way Educators Newsletter*, 26(1), 3-5. Available <http://www.workshopway.org/resources.htm>.
- Diller, C., Tafel, C., & Bentley, M.L. (1996, March). Surf and Turf: Earth Science on the Internet. *Science Scope*, 19(6), 16-18.
- Bentley, M.L. (1995, Summer). What We Can Learn from Science Education in Australia and New Zealand. *Spectrum*, 21(2), 8-11.
- Bentley, M. L. & Beckett, R. (1994, September). A Constructivist Approach. *Science Scope*, 18(1), 76-78.
- Bentley, M.L. (1992). Best Practice - Science. *Best Practice: Teaching and Learning in Chicago* (Chicago Project on Learning and Teaching), 3(1), 12-13.
- Bentley, M.L. (1989). Best Practice - Science. *Best Practice: Teaching and Learning in Chicago* (Chicago Project on Learning and Teaching), 1(1), 8-9.
- Bentley, M.L., Waring, E., & Manning, D. (1987). A Journey to Learn: The Richmond Governor's School of Science and Technology. *Public Education*, 23(1), 21-23.
- Bentley, M.L. (1980, November-December). How I Failed Grady. *Science and Children*, 15-16.
- Bentley, M.L. (1978, Spring). Progress in a Bold Experiment. *Contact*.
- Bentley, M.L. (1978, April 13). Report on Cuban Education. *Roanoke Times and World-News*.
- Bentley, M.L. (1976, April). Everglades Park Beckons Students. *Virginia Journal of Education*, 28-30.
- Bentley, M.L. (1971, November). Who is to Blame? *Pennsylvania School Journal*, 120(2), 32-33, 40.
- Bentley, M.L. (1971-1972). One Teacher's View (weekly column). *The Yeadon Courier* (PA).

## **Presentations**

- Bentley, M.L. (2009, November). Environmental Education in an Era of Nature Deficit Disorder. Paper presented at the annual meeting of the American Educational Studies Association, Pittsburgh, PA.

- Bentley, M.L. (2009, October). Inquiry Teaching and the Nature of Science. Presentation to the Arkansas State Science Specialists, Arkadelphia, AR.
- Bentley, M.L. (2009, July and August). Learning Cycle, Inquiry, and the Nature of Science. Presentation to the Virginia Science Standards Institute, Twin Lakes State Park, Farmville, VA and Hungry Mother State Park, Marion, VA.
- Bentley, M.L. (2009, February). Our Place in the Universe. Widowed Persons Association, Roanoke, VA.
- Bentley, M.L. (2009, January). Greening Your Parish: Creating a Certified Wildlife Habitat on Your Church Property. 90th Annual Council of the Episcopal Diocese of Southwestern Virginia, Roanoke, VA.
- Bentley, M.L. (2008, November). Our Place in the Universe. St. Paul's Episcopal Church, Salem, VA.
- Bentley, M.L. & Alouf, J.L. (2008, March). Integrating Differentiated Instruction and Inquiry in Elementary Teacher Education. Paper presented at the Annual Meeting, National Science Teachers Association, Boston, MA.
- Bentley, M.L. (2007, November). Addressing Environmental Education's Spiritual Dimension: The Episcopal Church's Catechism of Creation. Paper presented at Annual Meeting, North American Association for Environmental Education, Virginia Beach, VA.
- Bentley, M.L. (2007, November). The Amazing Muslim Scientists: Our Debt to the Islamic World. Paper presented at Annual Meeting, Virginia Association of Science Teachers, Williamsburg, VA.
- Bentley, M.L. (2007, November). Science Teacher PD through Museum-University Collaboration. Paper presented at Annual Meeting, Virginia Association of Science Teachers, Williamsburg, VA.
- Fleury, S., Bentley, M.L., & Garrison, J.W. (2007, October). Democracy, Ideology, and Evocative Teaching. Paper presented at Annual Meeting, American Educational Studies Association, Cleveland, OH.
- Bentley, M.L. (2007, October). Connecting Informal Science Education to the Middle Level Classroom. Invited lecture, SCED543: Middle Grades Concepts and Practices: Science Education. Theory and Practice in Teacher Education Department, University of Tennessee, Knoxville, TN.
- Bentley, M.L. (2007, February). Educating Citizens and Teachers About, For, and In the Environment. Invited lecture, Plant Sciences Department Graduate Colloquium, University of Tennessee, Knoxville, TN.
- Mueller, M. & Bentley, M.L. (2007, February). Why the Prospects of Future Generations Should Not Be Considered with One Eye Open and One Eye Shut. Paper presented at the annual meeting, Southeastern Association of Educational Studies, Chapel Hill, NC.
- Bentley, M.L. & Alouf, J.L. (2006). Using Differentiation and Inquiry in the K-12 Classroom: A Natural Combination. Paper presented at the Summer Conference, Association of Teacher Educators, Philadelphia, PA.
- Mueller, M. & Bentley, M.L. (2006). Fostering Cultural and Ecological Sustainability through Science Education. Paper presented at the Summer Conference, Association of Teacher Educators,

Philadelphia, PA.

- Bentley, M.L. (2006). Look What the Cat Dragged In! From a Carcass to an Integrated Inquiry Lesson. Paper presented at the annual Conference, National Science Teachers Association, Anaheim, CA.
- Alouf, J.L. & Bentley, M.L. (2006). Preparing Pre-Service Elementary Teachers to Teach Science by Inquiry: A Collaborative Approach. Paper presented at Annual Conference, Association of Teacher Educators, Atlanta, GA.
- Bentley, M.L. (2006). Islam and Teaching the Nature of Science: Acknowledging Arab contributions to Western Science. Paper presented at Annual Meeting, Southeast Association of Educational Studies, Knoxville, TN.
- Bentley, M.L. (2005). Teaching 'Nature of Science' - What Every Teacher Should Know. Paper presented at Annual Meeting, Virginia Association of Science Teachers, Roanoke, VA.
- Bentley, M.L. (2005). Your Place on the Planet: Hands-on Environmental Education for Young Learners. Paper presented at Annual Meeting, Tennessee Association for the Education of Young Children, Knoxville, TN.
- Bentley, M.L. (2005). Education Gone Astray: Identifying Ingredients for a Corrective. Paper presented at Annual Meeting, North American Association for Environmental Education, Albuquerque, NM.
- Bentley, M.L. (2005). Standards and Field Studies: Pedagogical Issues in Environmental Education in the US. Paper presented as part of symposium, "Environmental Education and Science Education: The Confluence of Roles of both Scientists and Science Teacher Educators in Conserving the World's Resources" at the Third Scientific Conference on the Environment and Natural Resources, Taiz University, Republic of Yemen.
- Alouf, J.L. & Bentley, M.L. (2005). Inquiry Modeling by Liberal Arts Science Faculty in the Professional Development of Teachers: Assessing the Impact on Practice. Paper presented at Annual Conference, Association of Teacher Educators, Chicago, IL.
- Bentley, M.L. (2004). Elementary Science Education: A Look at How British Schools Do It (and Assess It). Paper presented at Regional Meeting, National Science Teachers Association, Richmond, VA.
- Bentley, M.L. & Alouf, J.L. (2004). Professional Development for Elementary Teachers: The Value of Modeling Inquiry. Paper presented at Regional Meeting, National Science Teachers Association, Richmond, VA.
- Bentley, M.L. (2004). One Action Research Requirement: Cultivating Passion and Collaboration Across Multiple Subjects and Sites. Paper presented at Summer Conference, Association of Teacher Educators, Boston.
- Bentley, M.L. (2004). Using Message Boards and Other Technologies and Online Strategies in Science Teacher Education. Paper presented at Annual Meeting, National Science Teachers Association, Atlanta, GA.
- Granger, J.N., Yochum, H., & Bentley, M.L. (2003). Making Science Professionally Relevant for Future Elementary School Teachers: Development of a Standards-Driven, Inquiry-Based Science Curriculum for Preservice Teachers. Lilly Conference on College Teaching, Miami University,

Oxford, OH.

- Bentley, M.L. (2003). Introducing Critical Constructivism: Critical Consciousness through a Critical Constructivist Pedagogy. Paper presented at Annual Meeting, American Educational Studies Association, Mexico City.
- Bentley, M. L. (2003). Using On-line Technologies in Science Teacher Education. Paper presented at Annual Meeting, School Science and Mathematics Association, Columbus, OH.
- Bentley, M.L. (2003). Teaching Science Online: A Reflection on a Year's Experience. Paper presented at Annual Meeting, Southeast Association of Educational Studies, Chapel Hill, NC. (ERIC ED 475 053)
- Bentley, M.L. & Alouf, J. (2003). Assessing the Impact of Inquiry-based Science Teaching in Professional Development Activities, P-12. Paper presented at Annual Meeting of the Association for Teacher Education, Jacksonville, FL.
- Bentley, M.L. & Alouf, J. (2003). The Influence of the Modeling of Inquiry-based Science Teaching by Science Faculty in P-12 Teacher Professional Development Programs. Paper presented at Annual Meeting of the American Association of Colleges of Teacher Education, New Orleans, LA. (ERIC ED 474 947)
- Bentley, M., & Smith, L. (2002). Curriculum Development in Oak Park Schools: Focusing on Inquiry while Meeting Standards. Paper presented at Annual Meeting, National Science Teachers Association, San Diego, CA.
- Bentley, M.L. (2002). Community-Connected Science Education: Creating a Museum High School for Southwestern Virginia. Paper presented at Annual International Meeting of the Association for the Education of Teachers in Science, Charlotte, NC. Available [http://www.ed.psu.edu/CI/Journals/2002aets/s1\\_bentley.rtf](http://www.ed.psu.edu/CI/Journals/2002aets/s1_bentley.rtf)
- Bentley, M. L. (2001). Moving Growth Points: Curriculum Considerations Beyond the 'Standards'. Paper presented at Annual Meeting of the School Science and Mathematics Association, Chicago, IL.
- Bentley, M.L. (2001). Science Education in a Curriculum for Democratic Citizenship. Paper presented at Annual Meeting of the Virginia Association of Science Teachers, Richmond, VA.
- Bentley, M.L. (2000). How standards-based reform hurts environmental education. Paper presented at Annual Meeting of the North American Association for Environmental Education, Cincinnati, OH.
- Garrison, J.W., Bentley, M.L., Fleury, S., Larochelle, M., & Desautels, J. (1999). Critical-Constructivism, Science Education, and Teachers' Epistemological Development. Paper presented at the 5<sup>th</sup> International Conference on the History and Philosophy of Science in Science Teaching, Como, Italy.
- Bentley, M.L. (1999). A Post-final Assignment for the Methods Course: Providing an Incentive to Professional Growth for Future Teachers. Paper presented at the Annual International Meeting of the Association for the Education of Teachers in Science, Austin, TX.
- Bentley, M. & Fleury, S. (1999). Professional Development for Teachers in Urban Schools: Models for Reform. Paper presented at the Annual International Meeting of the Association for the Education of Teachers in Science, Austin, TX.

- Bentley, M., DeWynne, S., Dunlap, D., Leddy, M. & Mortimer, K. (1999). Minds-on science activities, demonstrations and projects: Engaging students to facilitate meaning-making. Paper presented at the Annual Meeting of the National Science Teachers Association, Boston, 1999.
- Saurino, D., Bentley, M., Glasson, G., & Casey, D. (1999). Preparing Science Teachers using Distance Learning: Urban and Rural Students Collaborate using Video Conferencing (VTEL) Technology. Paper presented at the Annual Meeting of the National Association for Research in Science Teaching, Boston.
- Glasson, G. & Bentley, M. (1999). Epistemological Undercurrents in Scientists' Reporting of Research to Teachers. Paper presented at the Annual Meeting of the National Association for Research in Science Teaching, Boston.
- Bentley, M., Soares, D., Casey, D., & Hicks, D. (1999). Field Studies as a Context for Student Collaboration in Preservice Secondary Teacher Education. Paper presented at the First Annual Blue Ridge Symposium, Explore Park, Roanoke, VA.
- Glasson, G.E. & Bentley, M.L. (1998). Connecting Science Research to the Classroom Teacher. Paper presented at the International Consortium for Research in Science and Mathematics Education (7th Consultation), Trinidad.
- Bentley, M.L. (1998). Environmental Education in the Standards: A Constructivist Appraisal. Paper presented at the Annual Meeting, North American Association for Environmental Education, Atlanta, GA.
- Bentley, M. (1998). Big books and content-rich fiction: Tools for integrating science and reading. Invited luncheon presentation, Annual Meeting, New River Valley Reading Council, International Reading Association, with Radford University, Radford, VA.
- Bentley, M.L., & Bloom, S. (1998). Using field trips to in 'Spire' students' mathematics and science learning. Paper presented at the Joint Annual Conference of the School Science and Mathematics Association and the North Central Regional National Council of Teachers of Mathematics, Louisville, KY.
- Bentley, M.L. (1998). Lemke's Ecocybersystem Model: A Vision for Science Education beyond the Standards' Era." Paper presented at the Annual Meeting of the Virginia Science Teachers Association, Richmond, VA.
- Bentley, M. & Schnobrich, J. (1995). Building a School-Community Alliance in Urban Chicago: A Model for Reform. Paper presented at the Annual Meeting of the Illinois Science Teachers Association, Springfield, IL.
- Bentley, M. (1994). Facilitating the Development of Pre-service Elementary Teachers' Views of the Nature of Science. Paper presented at the Second International Meeting of the Association for the Education of Teachers in Science. El Paso, TX.
- Bentley, M. (1993). Perspectives on Science Education in the U.S. Paper presented at the *Science Alive* Conference. Gwinganna, Queensland, Australia.
- Bentley, M. (1993). Constructivism and the New Reform Paradigm. Paper presented at the Annual Meeting of the College and University Faculty Assembly, National Council for the Social Studies.

Nashville, TN.

- Bentley, M. (1993). Constructivism and Post-positivist Philosophy of Science. Paper presented at the 1st International Meeting of the Association for the Education of Teachers in Science. Charleston, SC
- Bentley, M. (1992). Communicating a Philosophically Valid Concept of the Nature of Science. Paper presented at the Annual Meeting of the Illinois Science Teachers Association. St. Charles, IL.
- Bentley, M. & Fleury, S. (1992). Creeping Relativism and Ambiguity as Characteristics of the Contemporary Nature of Science Conception among Students and Teachers. Paper presented at the Second International Conference on the History and Philosophy of Science in Science Teaching. Queens' University, Kingston, Ontario.
- Bentley, M. & Alouf, J. (1992). Teaching for Feeling and Valuing. Paper presented at the Annual Meeting of the National Science Teachers Association. Boston, MA.
- Bentley, M. (1992). A Project 2061-Inspired Workshop for Elementary Teachers. Paper presented at the Annual Meeting of the American Association for the Advancement of Science. Chicago, IL.
- Bentley, M. (1991). The Design, Implementation and Evaluation of a Model Project 2061 Secondary School. Paper presented at the Annual Meeting of the Virginia Academy of Science. Blacksburg, VA.
- Bentley, M., Bloom, S., & Reynolds, V. (1991). An Integrated Curriculum Model for Pre-service Teacher Education. Paper presented at the Annual Meeting of the Association of Teacher Educators. New Orleans, LA.
- Lindenburg, T., Fleury, S., & Bentley, M. (1991). Constructivism, Interaction and the Hermeneutic Dialogue: A Symposium. Paper presented at the Annual Meeting of the Eastern Educational Research Association. Boston, MA.
- Bentley, M., Bloom, S., & Reynolds, V. (1990). The Grocery Store: An Interdisciplinary Field Trip for the Primary Grades. Paper presented at the Annual Meeting of the Chicago Association for the Education of Young Children. Chicago, IL.
- Bentley, M. & Alouf, J. (1990). Staff Development for Magnet Schools. Paper presented at the Annual Meeting of the Association for the Education of Teachers in Science, National Science Teachers Association. Atlanta, GA.
- Bentley, M. (1989). The Role of Postpositivist Philosophy of Science in the Reform of Science Teacher Education. Paper presented at the Annual Meeting of the American Association for the Advancement of Science. San Francisco, CA.
- Garrison, J. and Bentley, M. (1989). Pre-conceptual and Non-rational Aspects of Cognitive Change in Science Learning. Paper presented at the First International Conference on the History and Philosophy of Science in Science Teaching. Florida State University, Tallahassee, FL.
- Bentley, M. (1988). The Implications of Postpositivist Philosophy of Science for Science Teaching. Paper presented at the Annual Meeting of the National Science Teachers Association. St. Louis, MO.
- Bentley, M. (1988). Children's Alternative Conceptions and Misconceptions in Learning Science. Invited keynote, the Science Museum of Virginia-U.S. Department of Education Science Institute for

Elementary Teachers. Richmond, VA.

Bentley, M. (1987). The Implications of Deep Ecology for Science Education. Paper presented at the Annual Meeting of the National Science Teachers Association. Washington, D.C.

Bentley, M. (1987). Science Teachers Networking and Collaborating to Improve Practice. Invited keynote (Founding Address). Blue Ridge Chapter of the Virginia Association of Science Teachers. Roanoke, VA.

Bentley, M. (1987). Regional VAST Organizations – Networking and Collaborating to Improve Practice. (President-elect keynote). Annual Meeting of the Virginia Association of Science Teachers. Richmond, VA.

Bentley, M. (1987). The Significance of the Nature of Science Concept in the School Curriculum. Paper presented at the First Science Teacher Educator Meeting of the Association for the Education of Teachers in Science and the Ministry of Education of the People's Republic of China. Beijing, China.

Beegle, C., Bentley, M., & Figgins, M. (1986). Education Beyond the 1980s: Curriculum Implications of Global Environmental Deterioration. Paper presented at the Annual Meeting of the Association for Supervision and Curriculum Development. San Francisco, CA.

Bentley, M., & Waring, E. (1986). 'P' or 'J'? Do It Your Way: The MBTI as a Communication Model in the Virginia Governor's School. Paper presented at the Annual Meeting of the National Science Teachers Association. San Francisco, CA.

Bentley, M. & Clark, V. (1986). A 'Get Wet' Governor's School Program for Teachers and Students: A Regional Summer Magnet School Program Focused upon the James River. Paper presented at the Annual Meeting, Mid-Atlantic Marine Education Association. Virginia Beach, VA.

Bentley, M. (1986). Neuroscience Research and the Teaching of Thinking. Paper presented at the Annual Meeting of the Virginia State K-12 Science Conference. Fredericksburg, VA.

Bentley, M. (1984). The Janus-faced Future. Paper presented at the Annual Meeting of the National Council for the Social Studies.

Bentley, M. (1984). Hemisphericity Theory and Learning Disabilities. Invited Keynote Address, the Annual Virginia Conference for Teachers of the Learning Disabled. Fredericksburg, VA.

Bentley, M. & Eckles, G. (1984). Reforming Science Education: The Commission Reports Examined. Paper presented at the Annual Meeting, Virginia Academy of Science. Richmond, VA.

Bentley, M. (1983). Creationism Through the Back Door: The Case of Liberty Baptist College. Paper presented at the Annual Meeting, Virginia Academy of Sciences. Fairfax, VA.

Bentley, M. & Bourdeaux, R. (1982). On the Teaching of Origins: Creation and Evolution in the Schools. Paper presented at the Annual Meeting, National Science Teachers Association. Baltimore, MD.

Bentley, M. (1982). The Backcountry Experience and Wilderness Ethics. Paper presented at the Annual Meeting, Virginia Association for Environmental Education. Suffolk, VA.

Bentley, M. (1981, 1980). Education and the Brain: The Neuroscience Perspective. Paper presented at the

annual Meeting, Virginia Association of Science Teachers. Richmond, VA.

Bentley, M. (1980). Depth, Breadth and Mountain Peaks. Paper presented at the Annual Meeting, Virginia Academy of Science. Charlottesville, VA.

Bentley, M. (1979). Outdoor Biology Instructional Strategies. Paper presented at the Annual Meeting, Virginia Association of Science Teachers. Virginia Beach, VA.

Bentley, M. (1978). Ethnography as a Research Tool in Science Education. Paper presented at the Regional Meeting, National Science Teachers Association, New Orleans, LA.

Bentley, M. (1978). Models of Research and Evaluation in Science Education. Paper presented at the Annual Meeting, Virginia Academy of Sciences. Blacksburg, VA.

Bentley, M. (1978). Using Mt. Palomar Sky Survey Prints for Inquiry. Paper presented at the Annual Meeting, National Science Teachers Association. Washington, DC.

Bentley, M. (1978). Using Mt. Palomar Sky Survey Prints for Inquiry. Paper presented at the Annual Meeting, National Science Teachers Association. Washington, DC.

Bentley, M. (1978). Developing Thinking with Field Trips. Paper presented at the Annual Meeting, National Science Teachers Association. Washington, DC.

Bentley, M. (1978). Models of Research and Evaluation in Science Education. Paper presented at the Annual Meeting, Virginia Academy of Sciences. Norfolk, VA.

Bentley, M. (1978). Ethnography as a Research Tool in Science Education. Paper presented at the Annual Meeting, National Science Teachers Association. New Orleans, LA.

Bentley, M. (1975). Astronomy Activities for Junior High School Students. Paper presented at the Annual Meeting, Virginia Association of Science Teachers. Roanoke, VA.

Bentley, M. (1974). The Theory of Plate Tectonics. Paper presented at the Annual Meeting, Virginia Council for the Social Studies. Fredericksburg, VA.

## **Service**

Episcopal Diocese of Southwestern Virginia: Millennium Development Goals Committee 2007–

Southwest Virginia Higher Education Center, Abingdon, VA: Presenter at Annual Math-Science “F.A.S.T.” Program for 6<sup>th</sup> Grade Girls, 2006, 2007.

Impact & Amplify: Spirituality & Ecology Committee (NGO), Roanoke, VA, webmaster, 2007- (see <http://www.livingwithinnature.org>).

Community High School, Roanoke, Virginia: Co-Chair Board of Trustees, 2002–

Plowshare Peace and Justice Center, Roanoke, Virginia: Steering Committee; Chair, Vigil Committee; Chair, Advocacy Committee 2006–

Kanuga Conference Center (Episcopal Church USA), Hendersonville, NC: Board of Visitors 2003–

Association of Science Teacher Educators (ASTE, formerly AETS): Program Committee, Annual Meeting 2002, Charlotte, NC; Finance Committee 1998-2004.

Community School, Roanoke, Virginia: Board of Trustees 1998–2003; Vice President 1999–2002.

Oak Park District 97 Schools, IL: Curriculum consultant (curriculum design, evaluation, and professional development) 1990-1996, 1999-2002.

Inspiring Strategy Institute, White Plains, New York: Consultant, Website development and book research 2001–2002.

Virginia’s Explore Park, Roanoke, Virginia: Hancock-Cartledge Environmental Education Center Advisory Committee, 2000–2002.

Virginia Association of Science Teachers (VAST): Board of Directors 1999–2002; Higher Education Representative 1998-2002; President-elect 1987.

Virginia Science Supervisors Association (VSSA): Secretary-Treasurer, 1980-1981.

Phi Delta Kappa, University of Virginia: Chapter Historian and newsletter editor 1976-1977; Regional and International Conference Delegate 1977; President 1977-1978.

Science Museum Association of Roanoke Valley: Board of Trustees, Youth Activities Chair 1973-76.

Roanoke Education Association, Virginia: Human Relations Committee, 1974-1976.

Yeadon Education Association, Pennsylvania: Secretary and newsletter editor, 1970-1972.

### **Editorial boards, consulting, and review activities**

Member, Editorial Advisory Board, *Science Illustrated*, 2008–

Member, Editorial Advisory Board, *Popular Science*, 2008–

National Expert Panel, Education.com, Redwood City, CA, 2007–

Member, Editorial Board, *Science Education Review*, 2001 –

Proposal reviewer for North American Association of Environmental Education annual meeting, 2006

Reviewer for *Journal of Research in Science Teaching*, 2003–2006

### **Honors and awards**

Service to Society Award, Access Productions and Educational Services, Strafford, PA, October, 2003.

Outstanding Leadership Award, Virginia Project Learning Tree, 1986-1987.

Catalyst Award, Science Museum of Western Virginia, Roanoke, VA, 1977.

Roanoke Valley Outstanding Young Educator Award, Roanoke Jaycees, 1975.

University Fellow, Temple University, Philadelphia, 1969-1970.

Delta Epsilon Sigma National Honor Society in Biology, 1968.

### **Course development**

Teaching Science (K-6/K-8 Methods)	The Nature of Science in Science Education
Teaching Science in Secondary School	Science, Technology and Society
Elementary School Curriculum	Introduction to Biology (online)
Secondary School Curriculum	Astronomy (online, hybrid, and conventional)
Issues and Trends in Science Education (online)	Fundamentals of Meteorology (online and hybrid)
Education in Botanic Gardens and Nature Centers	Environmental Issues (online and hybrid)

### **Funded projects**

PI, Hollins University, *Hollins Elementary Science Institute for Teachers* (HESIT), an Improving Teacher Quality Grant (Title II, Part A, NCLB) by the State Council for Higher Education of Virginia (SCHEV), \$58,093 (August 2009– September 2010). Web: <http://www1.hollins.edu/classes/hesit/>.

PI, Hollins University, *Hollins Inquiry, Integration, and Differentiation Professional Development Project* (HIID), an Improving Teacher Quality Grant (Title II, Part A, NCLB) by the State Council for Higher Education of Virginia (SCHEV), \$39,840 (August 2007– July 2008).

Co-PI, with B. Ownly and R. Trigiano, Department of Entomology and Plant Pathology, University of Tennessee, *Teaching Biotechnology and Molecular Biology in 8 – 12 Classrooms*, an Improving Teacher Quality Grant by the Tennessee Higher Education Commission, \$74,936 (January-October, 2006).

PI, University of Tennessee, *Inquiry, Integration, and Differentiation: A UT Professional Development Institute for Appalachian Educators*, an Improving Teacher Quality Grant by the Tennessee Higher Education Commission, \$27,975 (January-October, 2005).

PI, with Claudia Melear and Kristin Rearden, University of Tennessee: *SPIRIT: Science e-Portfolios Infused with Research, Inquiry, and Technology Project*, a Project IMPACT Technology Infusion Program Award, \$8,974 (October 2003-2004).

PI, with Clara Brown, University of Tennessee, *An investigation of Science Concept Learning by Secondary ESL Students*, a Catalyst Award by the College of Education, Health and Human Sciences, \$5,000 (June 2002-2003).

PI, University of Tennessee, *Greening the Science Curriculum: Utilizing the UT Gardens for Teacher Professional Development in Science and Environmental Education Project*, a Catalyst Award by the College of Education, Health & Human Sciences, \$5,000 (June 2003-2004).

Co-PI, with Clara Brown, University of Tennessee, *Enhancing Academic Language Literacy in Math and Science for Elementary ELLs*, a Catalyst Award by the College of Education, Health & Human Sciences, \$20,585 (June 2003-2004).

PI, Hollins University, *Elementary Science Institute for Teachers* (HESIT) by the State Council for Higher Education of Virginia (SCHEV) an Eisenhower Program grant, \$33,600 (February 2002– June 2003).

Director, Virginia Tech, *Southern African Studies Institute for Teachers*, funded as a planning grant by the University Office of International Programs (UOIP), \$2,500 (2/99–6/01).

PI, Virginia Tech, *Teaching Geological and Biological Change and the Nature of Science Institute*, by the State Council for Higher Education of Virginia (SCHEV) through the Dwight D. Eisenhower

Program, \$34,000 (2/99–8/00).

PI, National Louis University, *Waukegan Network for Science, Mathematics, and Technology Curriculum Development and Teacher Education Project*, a Scientific Literacy grant by the Illinois State Board of Education, \$105,612 (11/95–8/96).

PI, National Louis University, *Chicago Schools' Curriculum Articulation, Integration and Alignment Project*, an Annenberg Foundation planning grant, \$25,000 (1/96–8/96).

PI, National Louis University, *Community Resource Curriculum Development Project*, by the Illinois Board of Higher Education through the Dwight D. Eisenhower Program, \$50,000 (2/94 – 9/95); \$47,000 (2/93 through 9/93), \$58,000 (2/94 through 9/94).

PI, National Louis University, *Chicago School Community Mentoring Project*, by the Illinois Board of Higher Education through the Higher Education Cooperative Act (HECA); \$75,000 (11/93 – 6/94).

**Professional memberships**

- Association of Teacher Educators (ATE) (2001-)
- Association for Science Teacher Education (ASTE) (1987-)
- National Science Teachers Association (NSTA) (1970-)
- North American Association for Environmental Education (NAAEE) (1978-)
- American Educational Studies Association (AESAs) (2003-)
- National Education Association (NEA) Life Member since 1971
- Phi Delta Kappa (1971-)

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