

Albert S. Byers, B.S., M.A., Ph.D.
Assistant Executive Director
E-Learning and Government Partnerships
National Science Teachers Association
1840 Wilson Blvd., Arlington, VA 22201-3000

Career Objective: To work with a dynamic team of dedicated and like-minded individuals as together we seek to improve excellence and innovation in teaching and learning empowered through technology-enabled STEM solutions. I seek a work environment where I might help lead and follow the strategic imperatives set forth to ignite students' and professors' passion for learning and achievement. I personally desire to apply my expertise and experience in education, online learning, curriculum and instruction, instructional technology, professional development, and strategic fiscal and project planning to impact real, measurable, and lasting change on both state and national levels

A. Relevant Information

Residence: 3613 Stone Harbor Drive, Midlothian, VA 23113

Mobile: 571-643-3360, Work: 703-312-9294

Hobbies: Jet Skiing, Wake Boarding, Snow Skiing, Tennis, Media Creation

B. Professional Preparation

Virginia Tech University	Curriculum & Instruction: Science Ed	B.S., 1985
Virginia Tech University	Curriculum & Instruction: Science Ed	M.A., 1995
Virginia Tech University	Curriculum & Instruction: Instructional Technology	Ph.D., 2010

C. Employment

Assistant Executive Director, Government Partnerships and e-Learning, National Science Teachers Association, Arlington, VA. 05/2002-Present.

Serve in a strategic capacity with mission-based government agencies, state and local departments of education, university, and education foundations as together we cooperatively develop high quality blended professional development solutions, resources, and opportunities (both on-site, on-line, synchronous, and asynchronous) for science educators across the United States.

Steer the design, development, implementation, and evaluation of large-scale professional development (PD) and e-learning endeavors that are now being consumed by nearly 100,000 educators daily, primarily through the National Science Teachers Association (NSTA) e-professional development portal called the Learning Center.

Lead and motivate a staff of 12 full time direct reports, and outstanding experts in the field to plan and execute an annual budget ranging between \$2-5 million each year. Have been either

project director or principal investigator for over \$35 million dollars in peer-reviewed grants and contracts all focused on the design and delivery of large scale, exemplary K-12 teacher education PD programs, and am the lead architect of the overall web site, e-PD tools, web modules, and e-learning opportunities found within the Learning Center.

Expertise in curriculum and development, science education, distance education, e-learning systems, professional development, instructional technology, and the knowledge of and ability to work within fiscal compliance and federal and state department of education policy guidelines is a unique combination of skills.

Contribute at the national and international strategic policy level serving currently on the Primary Technical Working Group for the US Department of Education Office of Educational Technology.

NASA Aerospace Education Specialist (AESP), Goddard Space Flight Center, Greenbelt, MD. 07/1995-08/1998.

Detailed full time to the Goddard Space Flight Center in Greenbelt Maryland. Helped design, implement and evaluate NASA education support curriculum and professional development related to the same. Trained thousands of educators throughout the United States for NASA as an instructor for Oklahoma State University within the Aerospace Education Services Program.

State systemic liaison for both Connecticut and Maine. Worked closely with each state science supervisor in the effective coordination of NASA education support resources and programming for their respective states' needs.

Helped conceptualize and develop the first virtual Maine Educator Resource Center (ERC), aligning NASA support curriculum to Maine's state standards given the geographic challenges of teachers reaching a physical ERC in Maine.

Served as educational liaison to the Space Telescope Science Institute on the campus of John Hopkins University in final year at NASA Goddard. Helped design and deliver professional development in support of the Amazing Space support curriculum and helped design a CD-ROM in support of these award-winning materials.

Microgravity flight opportunity aboard the KC-135 after experiment for three days. Selected in competitive process for opportunity at NASA. Analyzed the effects of fluid flow in reduced gravity and translated science into digital video and lessons to support student learning.

Physical Science Educator, Robious Middle School, Chesterfield County Public Schools, Chesterfield, VA. 09/1991-06/1994.

Sixth and eighth grade physical science educator. Daily preparation, delivery and evaluation of lesson plans to inspire and facilitate the learning of approximately 120 students a day in support of the Virginia Standards of Learning.

Designed authentic hands-on, inquiry-based learning experiences to engaged students in critical thinking and ignited their desire to learn science and its application to their daily lives within a cohesive, conceptual framework. Selected teacher of the year for Robious Middle School in third-year of teaching.

Taught gifted students at the Virginia Governor's School for the Gifted located at the Richmond Mathematics and Science Center in Richmond, Virginia (Rocketry and Cray Supercomputer 3-D modeling courses). During internship with the County Science Supervisor, served as a reviewer for the Virginia Governor's school site selection committee.

D. Publications

- a. Peer-reviewed and Edited Journals
 - i. Byers, A.; Koba, S.; Sherman, G.; Scheppke, J.; Bolus, R. (2011). Developing a Web-Based Mechanism for Assessing Teacher Science Content Knowledge. *Journal of Science Teacher Education*.
 - ii. Sherman, G.; Byers, A., Rapp, S. (2008). Evaluation of Online, On-Demand Science Professional Development Material Involving Two Different Implementation Models. *Journal of Science Education and Technology*, February, Vol. 17, pp. 19-31.
 - iii. Byers, A.; Lockee, B., Janosik, S. (2002). Distance Education Policy: Facing the Issues of Access. *Journal of Higher Education Policy and Management*, Vol. 11, n. 1, pp. 46-58.
 - iv. Byers, A. (2000). Uncovering Teachers' Perceptions of the Internet. *Al Byers. Virginia Society for Technology in Education Journal*. Fall, vol. 15, number 1, p. 3-8.
 - v. Angle, J., Ivey, T., Byers, A., Marks, S., & Tingler, P. Science teachers we have digital academic liftoff. *Science Scope*, February 2012, Vol. 36, n. 6. pp. 57-62.
 - vi. Fitzgerald, M.; Byers, A. (2002). A Rubric for Selecting Inquiry-Based Activities. *Science Scope*, September 2002, Vol. 26, n.1. pp. 22-25. EJ659971.
 - vii. Byers, A., Fitzgerald, M. (2002). Network for Leadership, Inquiry, and Systemic Thinking: A New Approach to Inquiry-based Learning. *Journal of Science Education and Technology*, March 2002, Vol. 11, n.1, pp. 81-91. Eric Document EJ643811.
 - viii. Byers, A. (1999). "Intra-university distance Education: The added impact of collaboration." *Open Learning Systems: The Voice of Open Learning* September (69): 42-43.
- b. Book Chapter: Sherman, G., & Byers, A. (2010). Electronic portfolios in the professional development of educators. In D'agustino, Steven (Ed.), *Adaptation, Resistance, and Access to Instructional Technologies: Assessing Future Trends in Education*.

- c. Conference Proceedings
 - i. Byers, A. (2002). Selecting and using online content for science instruction. *National Conference on Online Learning: Best Practice in Using Online Learning for Teachers*. The University of Alabama, Tuscaloosa, AL. Published Conference Proceeding.
 - ii. Byers, A. (2000). Interaction: The Key to Successful Distance Learning. *EDMEDIA 2000, World Conference on Multimedia, Hypermedia and Telecommunications*, Montreal Canada. ED458870.
 - iii. Byers, A.; Halpin, D.; Smith, T. (2001). Creating virtual labs to teach middle school astronomy principles: The NASA Connect education program series. *WEBNET 2001, World Conference On the WWW and Internet*, Orlando, Florida. Eric Document: ED466578.
 - iv. Byers, A., Halpin, D. (2000). Expert review at a distance: A hybrid approach. EdMedia, World Conference on Educational Multimedia, Hypermedia and Telecommunications. , Montreal, Quebec. ED458869.

E. Research and Grant Awards

- Principal Investigator, NOAA one-year \$36,000 grant: National Web Seminars and Symposia between NSTA and NOAA National Ocean Service. 2012
- Project Director, GE Foundation \$3,000,000 three-year grant. The NSTA Learning Center and SciPacks: Building Content Knowledge. 2012-2013.
- Co-Principal Investigator, NSF three-year \$399,564 grant: Use of Web 2.0 Technologies to Build Distributed Communities of Practice among K-12 Science Educators (Solicitation: NSF 11-501: Virtual Organizations). 2011-2013.
- Principal Investigator, NASA two-year \$1.5 million grant: Integrating NASA Digital Educational Assets (IDEA). NASA Grant NNX07AU68G S09. 2009-2011.
- Principal Investigator, NASA \$6 million grant: Explorer Schools: Project Management and Professional Development Expertise. NASA Grant NNG05GH24G. 2007-2012.
- Principal Investigator, California Institute of Technology, Jet Propulsion Laboratory three-year \$757,000 grant. Mars Public Engagement Professional Development: Addressing Scale and Sustainability. 2006-2008. Prime Contract NAS7-003001.
- Co-Principal Investigator, NSF \$857,000 grant: Connecting NSTA K-16 Science Content to the NSDL. 2005-2007. NSF Grant 0506535.
- Principal Investigator, NSF \$67,000 grant: The International Polar Year: An Interagency Collaboration between NSF, NOAA, and NASA. 2007. NSF ARC 0645895.
- Project Director, Hewlett Foundation \$800,000 grant: Addressing Open Access through Scalable and Sustainable Electronic Professional Development for Science Educators. 2006-2007. Grant: 2005-662.
- Principal Investigator, US Food and Drug Administration \$359,729 two-year grant: Building and Distributing SciGuides, SciPacks, and Symposia. 2007-2008.
- National Aeronautics and Space Administration, two-year \$8,300,000 grant: NASA Explorer Schools: Maximizing the Impact of NES Professional Development Opportunities. NES1-0000-0039. 2005-2007.

- Principal Investigator, National Oceanic and Atmospheric Administration \$463,000 two-year Environmental Literacy grant: Building and Distributing SciGuides and Science Objects. NOAA: NA05SEC4691006. 2005-207.
- Principal Investigator, University of Massachusetts \$142,190 three-year grant: Online Education for Secondary Science Teachers: An Integrated Approach to Food Safety Training. UM-03-001889-A-00. 2002-2005.
- Principal Investigator. National Aeronautics and Space Administration \$5,287,200 three-year grant: NASA Explorer Schools: Project Management and Professional Development Expertise. NCC5-742. 2003-2005.
- Project Director, National Science Foundation \$1,300,000 three-year grant: WebWatchers, 2001-2003.

F. Recent Conference Presentations

- Invited Symposium Panelist: Digital Resources to Support Science Instruction: Research, Development and Practice. Annual International Conference, National Association for Research in Science Teaching, Indianapolis, IN, March 2012.
- Invited Panelist: Online Communities of Practice: What Works? Florida Educational Technology Conference, Orlando, FL, January, 2012.
- Professional Development Institute: Blending Online and Onsite Professional Development: Applying What the Research Says for Effective and Sustainable Learning Communities. Annual Conference, National Science Education Leadership Association, Indianapolis, IN, March, 2012.
- Session Presenter: Social Network Analysis of Affiliation Networks to Promote Online Communities of Practice for Science Education. Annual meeting of the International Network for Social Network Analysis, Sunbelt XXXII, Redondo Beach, CA, March 2012.
- Session Presenter: The NSTA Learning Center. A Tool to Develop Preservice Teachers. National Conference, National Science Teachers Association, Indianapolis, IN, April 2012.
- Invited Panelist: Improving Educator Effectiveness—Teachers as Co-learners. State Educational Technology Directors Association Leadership Summit, Washington, DC, November 2011.
- Invited Speaker: Online Professional Development: Applying What the Research Says for Effective Scalable and Sustainable Learning Communities. 35th Annual SECME Summer Institute (Diversity in STEM Education). University of Alabama, Tuscaloosa, AL, June, 2011.
- Immersive Environments for Science Education: Hyper-learning or Over Hyped Learning, ISTE National Conference, Philadelphia, PA, June, 2011.
- Invited Keynote Speaker: Online Professional Development: Applying What the Research Says for Effective Learning. Next Step Institute-Navigating the Landscape of STEM Conference, Dover, DE, May, 2011.
- Online Professional Development: Research on Teacher Perceptions, Learning Preferences, and Learning Outcomes for Self-directed NSTA Web Courses. National Conference, National Science Teachers Association, San Francisco, CA, March 2011.

- Invited Speaker. Developing Online Learning Communities at Scale. National Science Foundation-sponsored STEM Summit, Longwood University, Farmville, Virginia. February, 2011.
- Developing Sustainable Online Learning Communities at Scale to Accommodate Diverse Learning Preferences and Needs. National Science Foundation. National Science Digital Library Annual Meeting, Washington, DC, November, 2010.
- Invited Expert. Building Scalable and Sustainable Learning Centers. **Always Learning** Web Seminar Series with host Bryan Chapman. July, 2010.
- The NSTA Learning Center: Scalable and Sustainable e-Professional Development. 2010 International Society for Technology in Education National Conference, Denver, Colorado, June, 2010.
- On-Demand Self-directed Electronic Professional Development that reaches Scale and Sustainability. Hewlett Open Educational Resources Annual Meeting Cambridge, Massachusetts (Yale University), April, 2010.
- The NSTA Learning Center: Supporting NSTA Regional District Directors and State Science Teacher Association Chapters. National Congress on Science Education (NCSE), Indianapolis, Indiana, July 11, 2008.
- The NSTA Learning Center: Meeting the Needs of Teachers in Texas. Fourteenth Annual Meeting of the Texas Regional Collaboratives for Excellence in Math and Science, Austin, Texas, July 11, 2008.
- Impacting Business Through E-learning Initiatives: National Science Teachers Association. E-Learning Summit, 2008. Web Seminar Presentation. May 8, 2008.
- E-Professional Development: Science Objects, SciPacks, and The NSTA Learning Center, Education to Achieve 21st Competencies and Skills for All: Respecting the Past to Move Toward the Future Symposium, Xi'an, China, January 15-17, 2008.
- Training Trainers and Networking Networks: Approaches to Strategic Partnerships, National Science Foundation. National Science Digital Library Annual Meeting, Arlington, Virginia, November 7, 2007.

G. Awards and Honors

- 2012 eSchool Media Readers' Choice Award, Honorable Mention. The NSTA Learning Center. eSchool Media, Inc.
- 2011 Outstanding Student, Virginia Polytechnic Institute and State University Instructional Design and Technology, School of Education, College of Liberal Arts and Human Sciences.
- 2010 National Group Achievement Award, National Aeronautics and Space Administration, John H. Glenn Research Center, Cleveland, OH for work on the NASA Explorer Schools National Education Project.
- 2009 Golden Lamp Awards Finalist, Category: Professional Development, The Association of Educational Publishers.
- 2008 Center for Food Safety and Applied Nutrition (CFSAN), 2008 Annual Honor Awards. US Food and Drug Administration Leveraging/Collaboration Award.

- 2007 Training Technology in Action Award—Learning Content Management Project of the Year: The NSTA Learning Center, Training Magazine.
- 2007 Learning Leader: Organizational Management Excellence for the NSTA Learning Center, Bersin & Associates.
- National Graduate Student Research Program Fellowship, National Aeronautics and Space Administration, Langley Research Center, Hampton, VA, 1998-2002.
- 2000 Best Instructional Technology Graduate Student Multimedia Archive, Awarded across an eight university consortium: Northern Illinois University, The University of Georgia, The University of Minnesota, Texas A&M University, Virginia Tech, The University of Houston, The University of Michigan, and Utah State University.
- 1997 National Group Achievement Award, National Aeronautics and Space Administration, Goddard Space Flight Center, Greenbelt, MD. For work on the Space Experiment Module Project flying student payloads in space.
- Special Recognition Award for outstanding and distinguished service to the state of Connecticut, Connecticut Science Supervisors Association, Hartford, CT, 1997.
- 1993-1994 Teacher of the Year, Robious Middle School, Chesterfield County Public Schools, Richmond, Virginia.
- National Educator Grant Award Recipient, National Science Foundation, University of California, Berkeley and the Lawrence Hall of Science, Berkeley, CA. 1994.

H. International and National Advisory Panels and Expert Review Panels

- Invited Committee Member. Primary Technical Working Group: US Department of Education Grant: Educational Technology-Focused Online Communities of Practice. (Solicitation: ED-PEP-10-R-0053). See: <http://www.connectededucators.org>. October 2010-Present.
- National Science Foundation DRK-12 Award to the American Museum of Natural History, the NY State Department of Education, and the NY State Board of Regents. Program will develop a master's degree program targeting teacher preparation in Earth/Space science that involves online learning coupled with in-state residency experiences, and targeted mentoring for teachers in high urban areas in grades 7-12. Senior advisory panel. 2012.
- Invited Guest Editorial Reviewer: The Journal of Science Teacher Education (JSTE). John Staver and Lynn Bryan, Editors-in-Chief. 2012.
- National Science Foundation, National Science Digital Library STEM EXCHANGE working group. Invited member. Discussing how to leverage digital assets for more effective learning as part of community. Washington, D.C. 2010-2011.
- National Science Foundation, Center for Ocean Sciences Education Excellence-Ocean Systems (COSEE-OS). External Advisory Board Member for the University of Maine. Assist in visioning for online learning and e-professional development. January 2010-present.

- National Science Foundation, e2Biology Symposium. Invited symposium contributor. Assist in developing vision and strategic plan for an electronic introductory biology program with a focus on evolution for undergraduates. North Carolina State University, Durham, NC. January, 2010.
- National Science Foundation, Planning for the Future of Geo-Cyberlearning. Invited contributor. January, 2010. Washington, D.C.
- Invited Expert Review Panel, National Education Technology Standards for Teachers, International Society for Technology in Education, Washington, D.C., March, 2008.
- Invited Expert Reviewer, US Department of Education. Doing What Works web site. Washington, D.C., March 2008.
- Invited delegate/speaker. US Department of Education Asian Pacific Economic Cooperation Summit, Education to Achieve 21st Competencies and Skills for All. Xi'an, China. January 2008.
- Review Panel. NAEP Science Framework Prioritization Expert Review Panel. Sponsored by the US Department of Education's National Center for Education Statistics. April 2008.
- Science Learning through Cyber Resources: Senior Advisory Council. National Science Foundation grant awarded to Stephen's Institute of Technology, League for Innovation in the Community College, and the National Association of Community College Teacher Education Programs. 2008.
- Invited Grant Panelist, National Oceanic and Atmospheric Administration, Office of Education. Environmental Literacy Grant Review Panel, 2006.
- Committee Member: National Board for Professional Teaching Standards, "Adolescence and Young Adulthood/Science Standards Review Committee." 2002-2004.
- National Aeronautics and Space Administration, Space Telescope Science Institute, Peer Review Grant Panel, Hubble Space Telescope Cycle 12 Education and Public Outreach, John Hopkins University, Baltimore, MD, September 2003.
- Invited Expert Review. NASA Explorer Schools Web Jam Design Symposium, Marshall Space Flight Center, Huntsville, AL, May, 2003.
- Invited Reviewer. Senior Advisory Peer Review Grant Panel, "Anticipating the Role of Emerging Technologies in Science Education," National Science Foundation. October 2002.
- Invited Expert Reviewer, National Aeronautics and Space Administration Ralph Steckler/Space Grant Colonization Research and Technology Opportunity, Peer Review Grant Panel, June 2002.
- Senior Technology Advisory, Networking for Leadership, Inquiry, and Systemic Thinking, Council of State Science Supervisors under a grant from the National Aeronautical and Space Administration. 1999-2001.