



2014 Brock International
Prize in Education Nominee

Laurie Ruberg

Nominated by Robert Starr



Laurie Ruberg, received her Ph.D. in curriculum and instruction from Virginia Tech. She joined the Center for Educational Technologies at Wheeling Jesuit University in 1995 as a senior instructional designer and later (2005) became associate director. She manages the *NASATalk* online collaborative, where she actively blogs, directs research, and leads several groups that draw diverse educational audiences. The Exploring the Environment–Global Climate Change collaborative on *NASATalk* bridges Ruberg’s recently completed climate science web curriculum with live

discussions and science teacher-focused blogs. Teachers from 42 states and 17 countries already have registered for the six Global Climate Change problem-based learning modules completed this year as part of a NASA Global Climate Change Education project she led.

Ruberg’s extensive background in education outreach, instructional design, and program evaluation reaches across both educational and technical/professional settings. She has received national awards for her multimedia curriculum design and program evaluation efforts.

“Continuous learning is an integral part of my work in instructional design, integration of new technologies, and program evaluation,” she says. “Each project involves a partnership with teachers who are open to trying new modes of instruction and who share an interest in finding ways to enhance and improve student learning.”

National Aeronautics and Space Administration



NASA  TALK





NASATalk: **An E-learning** **Mission Experience**

Laurie Ruberg
NASA Talk Explorer
2008-2013



Mission

- Expand our understanding of how a web-based collaborative can help teachers become more aware of NASA STEM educational resources and how to use them with their students
- Use the resources of Web 2.0 to engage teachers in online discussions about NASA STEM education products and opportunities

Use *NASATalk* to explore new perspectives
for collaborative professional development



Image credit: Hubble Space Telescope: [NASA.gov](https://www.nasa.gov)

Wednesday, May 20, 2009 - Today is allegedly the 400th anniversary of Galileo's use of a telescope to confirm the Copernicus proposition that the planets, including Earth, revolve around the Sun. The NASA Hubble repair crew also makes their contribution to telescopic history today. The excitement, magnificent photos, and technological feats of the Hubble repair mission provide a great story to stimulate youth interest in science, technology, and engineering topics and careers. Your students can track the progress and access great images about the STS-125 mission on [NASA's website](#). For quick facts and a rationale for all the excitement about this mission at [today's Concord Monitor Editorial](#).



One of 20 stories
about the Hubble
Space Telescope
featured on...


NASA TALK

The image above shows NASA astronauts John Grunsfeld, rear, and Andrew Feustel at work to upgrade the Hubble Space Telescope during a spacewalk, Monday, May 18, 2009, with Earth shining over their shoulders. During this fifth and final visit to Hubble, the shuttle Atlantis astronauts outfitted Hubble with two updated science instruments, new batteries, and gyroscopes. The \$220 million worth of new instruments should allow the telescope to peer even deeper into the cosmos—perhaps as far back as 13 billion years. Read more in "[Astronauts Wrap Up Hubble Work](#)" by AP writer, Marcia Dunn.



Who funded the development of *NASATalk*?



The NASA-sponsored Classroom of the Future, which has served as the space agency's principal research and development center for educational technologies, received funding to develop the [NASATalk](#) web-based collaborative.

Laurie Ruberg serves as project manager and lead designer for *NASATalk*.



Goals and Objectives

Develop a web 2.0 collaborative website to

- Share user-generated content
- Feature NASA programs and emerging educational technologies
- Disseminate expanded opportunities for collaboration



NASATalk Collaborators



Image credit: mynasadata.larc.nasa.gov



Image credit: sunjournal.com

**NASA educators.. STEM
teachers... product
developers...
curriculum designers...
educational
researchers... informal
educators.. and all
advocates for
improving learning**



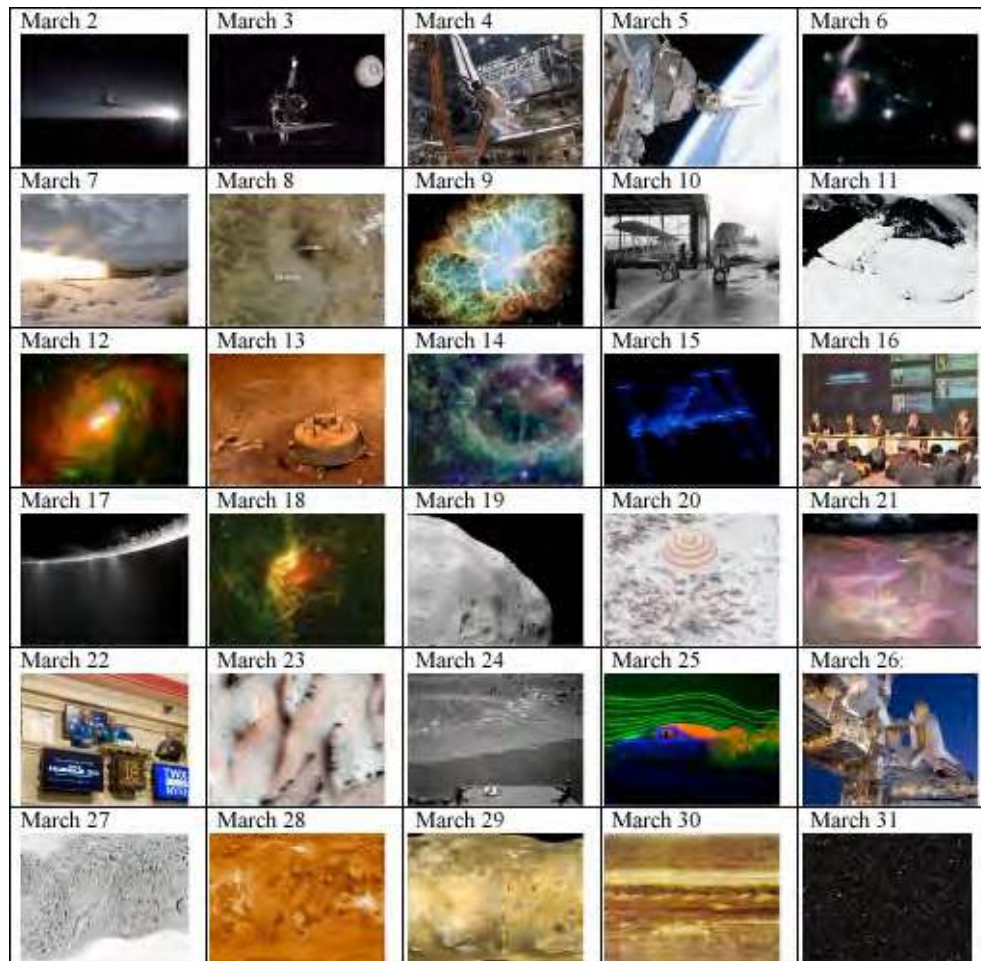
Key opportunities NASA*Talk* has facilitated



1. NASA Connections
2. Promoting NASA educator opportunities
3. STELLAR Awards
4. Online discussion of ISTE Ed Tech Standards
5. Learning with Mobile Devices
6. Educator blogs
7. Professional collaborative groups



1. NASA Connections



Partnerships across NASA Education including with:

- NASA Digital Learning Network (DLN)
- NASA Aerospace Education Specialists (AES)
- Electronic Professional Development Network (ePDN)
- Aeronautics and Spaceflight
- Earth & Space Education and Public Outreach
- NASA Earth and Space Science Missions

Regarding the image at left,
Read more on NASATalk:
[Using NASA images to make digital quilts and word clouds...](#)





NASATalk features live webinar presentations and workshops to support “Just in Time” educator professional development



Rockets 2 Racecars links popular car racing with space-related technologies & math...

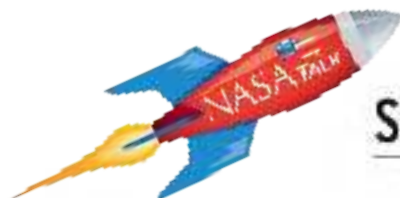


NASATalk featured a private collaborative and blog to support educator involvement in STS-131 thru STS-134 shuttle launches.





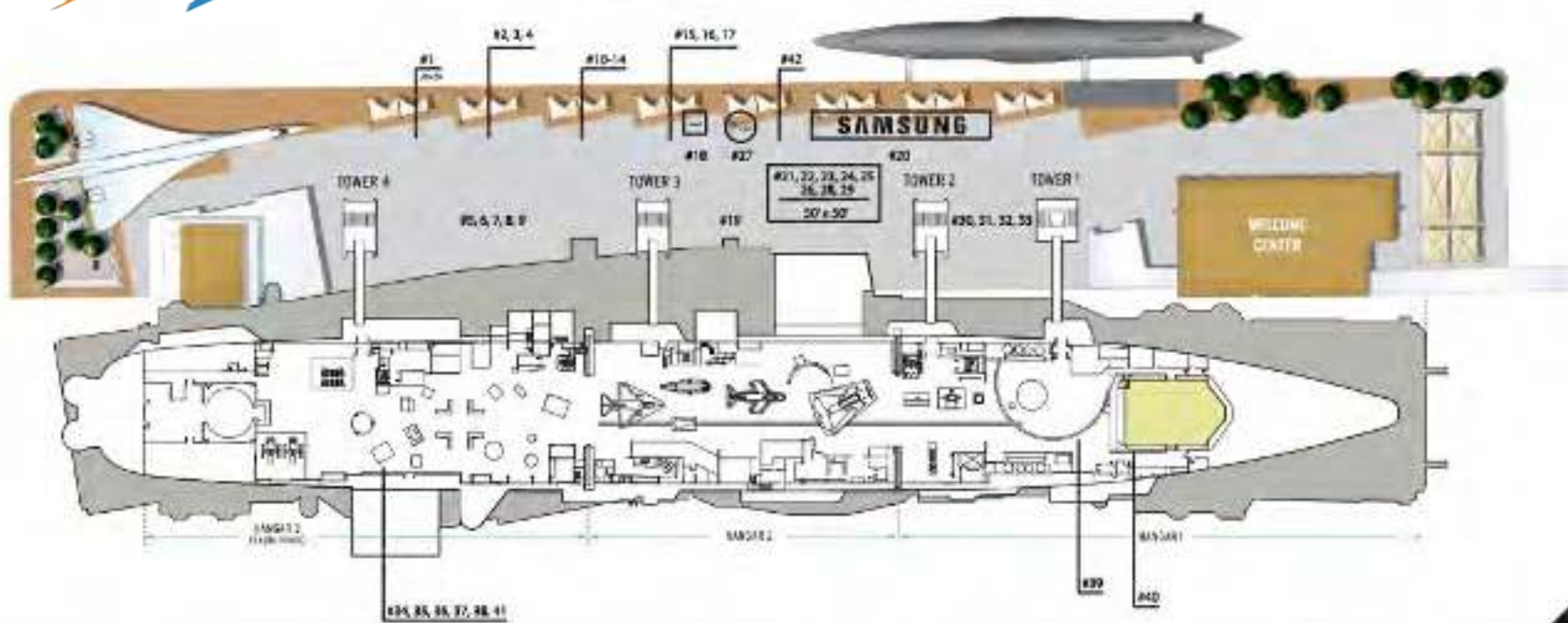
NASA TALK



INTREPID
SEA, AIR & SPACE MUSEUM COMPLEX

SpaceFest
July 18-22

Samsung SpaceFest Exhibits & Displays



1. FIRST Robotics
2. Challenger Learning Center
3. Lunar Recon Orbiter (LRO)/Lunar Quest
4. NASA Education
5. Meet the ISS: 1/100 scale model of the ISS
6. Commercial Crew Program
7. Space Communication and Navigation
8. James Webb Space Telescope
9. SOO Solar Telescope
10. Under Pressure: Flightsuit

11. Peeps and Pressure Demo
12. Aviation by App
13. NASA "with you when you fly" Interactive
14. Flight Suit Cut-Out Photo Ops
15. Space Launch System
16. Quarter Scale Orion Display
17. Shuttle EVA Suit Photo-Op
18. Intrepid Sea, Air & Space Museum
19. HEO Dome
20. Samsung

21. NASA/Shuttle Spin-Offs
22. Launch Services Program
23. Ground Systems & Development Operations Program
24. mini gem - Photo Kiosk
25. 3rd Rock Radio
26. Share the Past: NASA Artifact Program
27. Time Warner Cable
28. Orbiter Locations
29. NASA/Intrepid Awards Center
30. Mars 3D McMurdo
31. Mars Science Laboratory (MSL) Inflatable Rover

32. Roll Over Rover
33. Mars Mark II - Planetary Suit
34. CHANDRA
35. Hubble Space Telescope
36. NASA Advanced Technologies
37. Flight Opportunities
38. Dynamic Planet Satellite Image!
39. NASA Art Quest
40. NASA Visualizations (Lutnick Theater)
41. Portable Planetarium
42. Space Camp

All SpaceFest activities and displays are subject to change.





2. Promoting NASA Educator Opportunities

- Rocket-boys
October Sky Launch
- Online events such
as the Technology
Triathlon
- NASA Langley Pre-
service Teacher
poster contest
- Pre-E Workshop
- NASA STEM
Educators
Conference





National Aeronautics and
Space Administration

NICE

NASA Innovations in Climate Education

[Home](#)[About Us](#)[Resources](#)[Data](#)[Project Portfolio](#)[For Educators](#)[Partner Links](#)[TrACE](#)[Highlights](#)[User Login](#)

Lin Chambers, Ph.D.,
NICE Project Scientist,
NASA LARC



Ann Martin, NICE
Program Evaluator,
NASA LARC



Bonnie Murray, NASA
Education Specialist,
NASA LARC



Laurie Ruberg, Ph.D.,
Associate Director
at CET/WJU



Don Watson, Manager
of the DLInfo Channel
at CET/WJU

Discuss
ETE on

NASA TALK

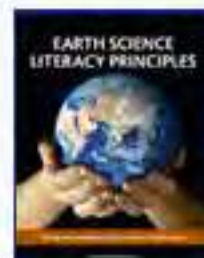
☒ [NGSS Website](#)



[Climate Literacy
Principles](#)



[Energy Literacy
Principles](#)



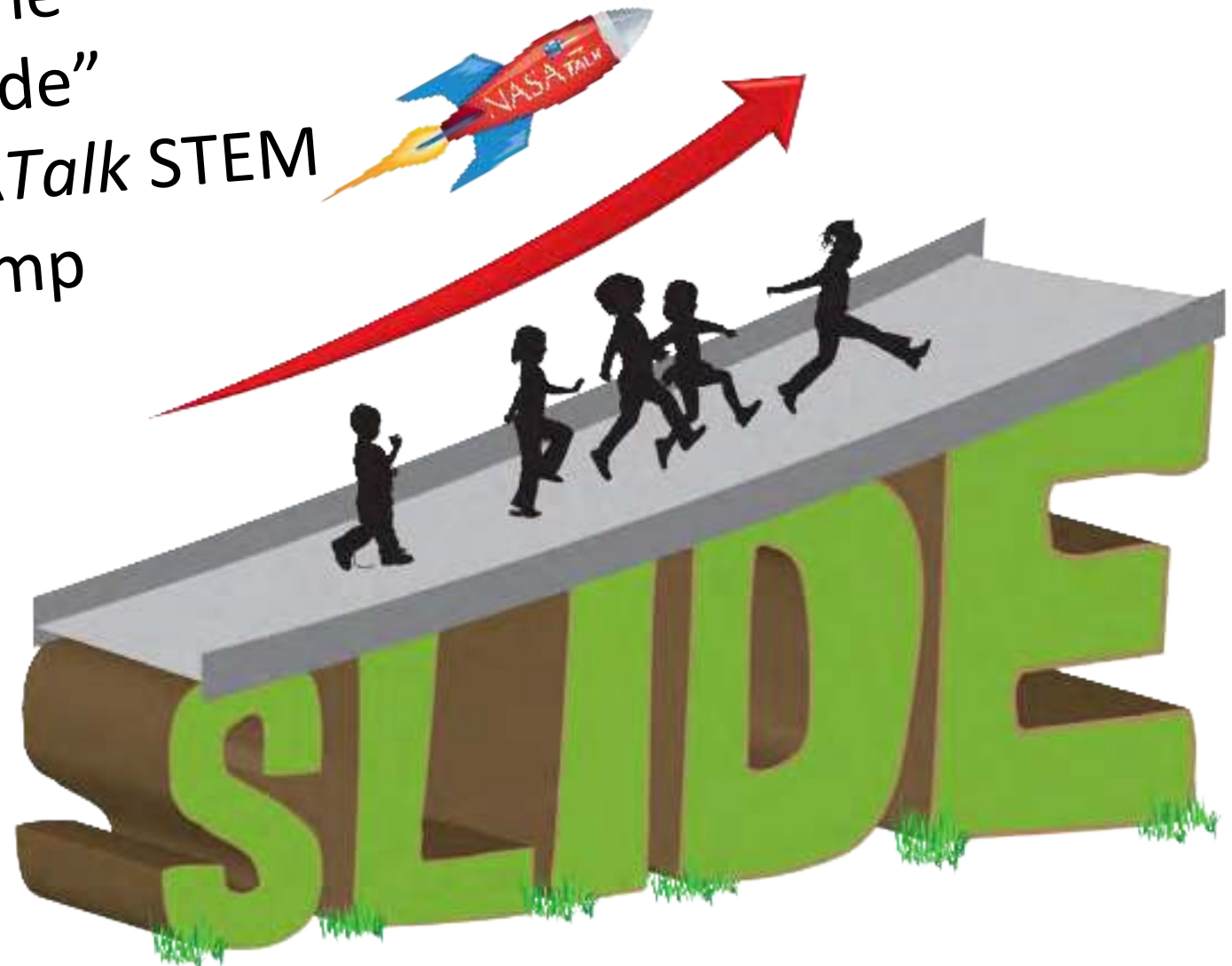
[Earth Science Literacy
Principles](#)



NASATalk



Preventing the
“Summer Slide”
with a NASATalk STEM
Summer Camp





[Read more about this Middle School STEM Camp on NASATalk](#)



3. NASA*Talk* STELLAR Awards were established in 2009 to recognize educators demonstrating excellent uses of NASA STEM materials in classrooms or informal settings.





NASATalk STELLAR Awards were established in 2009 to recognize educators demonstrating excellent uses of NASA STEM materials in classrooms or informal settings.



The STELLAR acronym highlights educator attributes that are recognized through this award: Successful Teachers Explaining how they impLement NASA resources to improve student Learning And stimulate STEM caReer interests.



STELLAR Award Winners Gallery



Eileen Poling (right) with her principal.



Garrison Hall.



Elizabeth Hoyson.



Amy Williams.



C.P. Gloria Samperio Ruiz



Are you the next STELLAR Awards winner?



4. ISTE Standards as NASA*Talk* Tech Topics



[Home](#) • [TechTopics](#) • [Show All TechTopics](#)

Show All TechTopics - TechTopics



With TechTopics we highlight promising educational technologies, tools, websites, resources, software, and hardware. We also provide a forum for in-depth discussion and commenting on particular educational technologies.

Topics are organized using the ISTE National Educational Technology Standards for Students. We have included additional categories for Knowledge and Comprehension Tools and other topics which do not fit neatly within one of the ISTE categories.

Feel free to add your own topics. Many of the original topics came from a research article on exemplary edtech published in October, 2008. For more information please see the article titled, "[EdTech Exemplars](#)."





5. Learning with Mobile Devices

iPads for Learning: Learning on the Go!







6. Educator Blogs

The NASATalk web site includes –

9 NASA partner blogs

9 *NASATalk* team member blogs

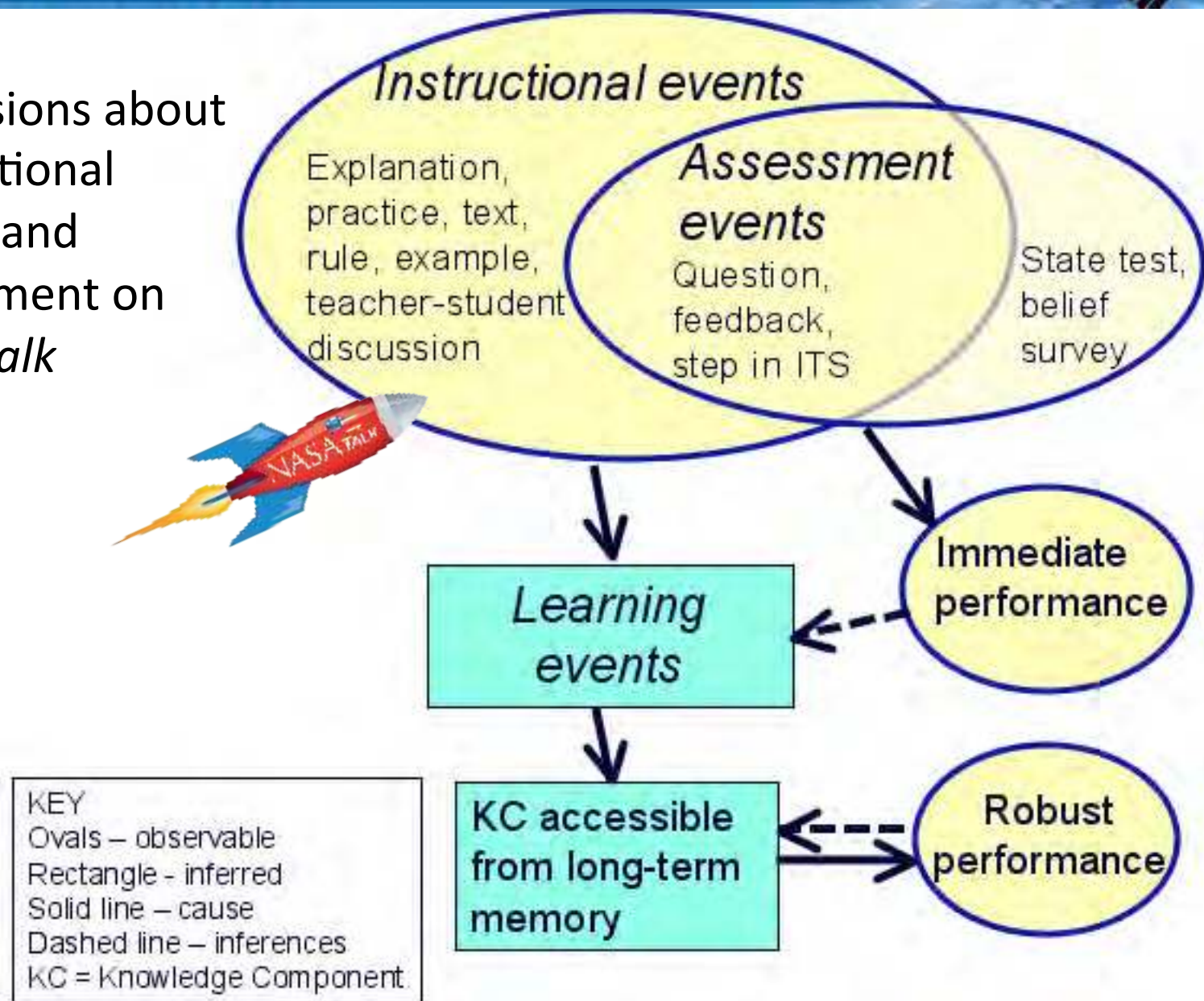
10 External partner blogs

6 Guest blogs (individuals or organizations having common interests with *NASATalk*)

Since Jan 2010 the *NASATalk* authors from the blog and collaborative groups have created 1973 articles, which are posted online.



Discussions about instructional design and Assessment on NASATalk





7. Professional/Content Collaborative Groups

The *NASATalk* web site includes --

5 science-related collaborative groups

4 robotics-related collaborative groups

1 Engineering education collaborative group

1 K-4 STEM education collaborative group

2 Mathematics-related collaborative groups

4 STEM education collaborative groups

3 Research and evaluation collaborative groups

1 Project planning collaborative group

6 Archived (project completed) collaborative groups

Logout



Search

Enter Search Criteria...

Search

Translate this page

Select Language

Google Translate

AEA GEDI Internship



Starting in October 2011, the Wheeling Jesuit University Center for Educational Technologies is participating in the American Evaluation Association (AEA)

Graduate Education in Diversity Internship (GEDI) Program. The photo collage (shown at left) features Tyra Good, our AEA GEDI intern, Debbie Plecka and Chuck Wood, who will both be contributing to Tyra's intern experience as project mentors, Rodney Hopson, who is Tyra's Duquesne University faculty mentor, and Laurie Ruberg, who is serving as the WJU/CET mentor. Each of us will be contributing to Tyra's intern experience in different, complementary ways. We have set up this member-only collaborative and blog to provide an area where we can individually and collectively share experiences, insights, and ideas about STEM evaluation practices and processes. As Tyra will be working across two different locations during her WJU/CET internship, this virtual area for communications may provide a way to tie seemingly disconnected experiences into coherent themes.

With the Tyra's internship experience as the focus of this collaborative, we'll all work together to make the internship work a means to offer a window into the variety of evaluation needs and issues within this organization. We expect this to be a mutually beneficial partnership between all involved, and we look forward to additional input from the AEA as the sponsoring professional organization during this intern year.

After receiving applications from almost 80 applicants, AEA narrowed down the pool to candidates in closest proximity to the WJU/CET, and those with



the best possible match to your organization. Interns were narrowed using the following criteria:

- Proximity
- Fit with organization
- Expressed interest in evaluation
- Exposure to evaluation
- Credentials (coursework, CV, etc.)

Let's use this online collaborative and embedded blog to document the internship process as we learn together.

[Go To AEA GEDI Journal Blog](#)

Robotics Collaborative Groups



Audience and Impact

Between Jan 1, 2010 and Sep 7, 2013

- 59,078 people visited the *NASATalk* web site
- 216,000 pages were viewed by 80,393 visitors
- Visitors came from all 50 States and 168 different countries outside the U.S.
- The average page view per visit was 2.7
- The average time per visit was 2:49 minutes



Laurie Ruberg, serves as the project manager, designer, recruiter, writer, and spokesperson for NASA*Talk*.

The ideas for outreach and participation across these varied and diverse communities reflect her conscious efforts to make NASA*Talk* a collaborative community that is used by many education groups.

*Alone we can do so little;
together we can do so
much — [Helen Keller](#)*

Lorena (Laurie) Ferguson Ruberg, Ph.D.
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Tel (w): 304.243.2480 Cell: 304-639-3894 Email: elarningtalk@gmail.com

PROFESSIONAL AFFILIATIONS

Wheeling Jesuit University, Wheeling, WV

Center for Educational Technologies (1995 to present)

Associate Director: Project management, project coordination, strategic and planning.

Principal Investigator: NASA Explorer Schools Evaluation project; Mid-Atlantic Region Space Science Broker (MARSSB) program; NASA Innovations in Climate Education.

Senior Instructional Designer: Lead designer for two NASA-funded curriculum development projects: BioBLAST[®], a software-based curriculum supplement for high school biology classes, and the International Space Station Challenge, a web-based curriculum.

FUNDED DESIGN, DEVELOPMENT, AND EVALUATION PROJECTS

- Manager, NASATalk.com, a Joomla!-based content management system (2008-present).
- Principal Investigator, [Exploring Global Climate Change Through Problem-Based Learning](#), a two-year curriculum development project funded by NASA (2010-2013) that includes teacher registrations from 44 states and 18 countries.
- Principal Investigator: Project Research and Evaluation, CDC/NIOSH/OMSHR Contract 254-2008-23745 with Wheeling Jesuit University (Oct 2011- Sep 2013).
- Evaluator, [Mining and Industrial Safety Technology and Training Innovation \(MISTTI\)](#) project, CDC/NIOSH Cooperative Agreement (Oct 2009 – Sep 2012).
- Evaluator, NASA Earth and Space Online “Missions” for High School Learners with Accompanying Electronic Professional Development, NASA (Jun 2009 – May 2012).
- Project Manager/Instructional Designer, [BLiSS-Sim](#), the first science education iTunes app developed by the NASA-sponsored Classroom of the Future, based on the COTF multimedia BioBLAST[™] simulation data.
- Mid-Atlantic Region Space Science Broker/Facilitator, funded by NASA Science Mission Directorate (2001-2007) to support building strategic partnerships among scientists and educators in nine states and the District of Columbia.
- Principal investigator, [NASA Explorer Schools program evaluation \(2005-2007\)](#), a national program designed to increase student interest and achievement in STEM-related content and careers by providing sustained professional development for teachers and administrators at ethnically diverse middle schools.
- Sr. Instructional Designer, International Space Station Challenge, web-based curriculum activities (1999 – 2001).
- Sr. Instructional Designer, Project Manager, [BioBLAST[™]](#), a multimedia curriculum for high school biology students based on NASA advanced life support research (1995-1999).

Virginia Polytechnic Institute and State University, Blacksburg (1988-1995):

College of Education, Instructional Systems Development

Research Associate: Research funded by NSF Undergraduate Course and Curriculum Development, “Development and Assessment of a Multimedia Plant Science Laboratory” NSF Curriculum Development Grant #92-2170-06. Dissertation research.

Self-Instruction Curriculum Lab Manager: Computer lab technical support staffing.

Virginia Cooperative Extension Service Interactive Design and Development Group
Research Associate/Assistant Project Director: Served as team leader for development of Virginia Public Information Stations, a project funded by the U.S. Department of Agriculture and the Kellogg Foundation.

Human Services on Cable Inc., New Orleans (1985-1987)

Project Director: Served as program manager; provided leadership for the design and planning of a distributed human service information system. Implemented activities with support from a volunteer board of directors, community stakeholders, and local cable sponsor. Secured grant support and corporate funding to support program.

EDUCATION

Virginia Polytechnic Institute and State University, College of Education, Blacksburg

Ph.D. degree earned (1994) in Curriculum and Instruction

Dissertation title: Student Participation, Interaction, and Regulation in a Computer-Mediated Communication Environment. Dissertation funded by NSF Curriculum Development Grant #92-2170-06.

University of Iowa, College of Arts and Sciences, Iowa City

M.A. degree earned (1979) in English Literature.

Drexel University, College of Humanities and Social Sciences, Philadelphia

B.S. degree earned (1974) in Psychology and Education.

AWARDS AND RECOGNITIONS

Second place, AERA Division H School Evaluation and Program Development Outstanding Publications Competition on Program Evaluation Studies, 2008.

Senior Instructional Designer/Project Lead for *BioBLAST™* multimedia CD-ROM (1995-1999) that received the following awards:

- Copper AXIEM (Absolute Excellence in Electronic Media) Award, 1999.
- Distinguished Achievement Award for Excellence in Educational Publishing—Educational Technology Curricular Software, The Association of Educational Publishers, 1999, one of four finalists.
- CODIE AWARD for School Based Education Product—Best Product 1999, one of five finalists.

Tuition scholarship, Virginia Tech, 1991-1994.

Psi Chi psychology honorary fraternity, Drexel University chapter (1973).

PROFESSIONAL AFFILIATIONS

- American Educational Research Association—1991 to present
- American Evaluation Association—2007 to present
- National Science Teachers Association—1996 to present
- Professional Education Department, Wheeling Jesuit University – Adjunct Faculty 1997-1999 & 2007 to 2010
- Principal and Founder of PLANTS, LLC - a business formed (2013) to provide professional scientific and technical services related to plant growth and food production processes.

Professional services include educational workshops, hands-on training, professional development, and information assistance to promote sustainable agriculture practices.

COMMUNITY AND PROFESSIONAL VOLUNTEER ACTIVITIES

Member, Wheeling Hopeful City Community Renaissance Task Force – 2001 to 2004

Commonwealth Graduate Engineering Program, Advisory Board Member – 2005 to 2008

Area coordinator for Future City National Engineering Competition – 2003 to 2013

Reviewer for:

- Software Information Industry Association CODIE™ Judge
- American Educational Research Association
- American Evaluation Association
- NASA Education and NASA Science Mission Directorate E/PO Program
- National Science Foundation

PEER-REVIEWED PRESENTATIONS AND PUBLICATIONS

Ruberg, L. F., Morris, K., & Wood, C. A. (2013). Mobile Devices for STEM Learning to Go: Guidelines for Selecting Mobile Devices and Applications to Enhance STEM Learning. In Norma Teresinha Oliveira Reis (Ed.) *Pedagogical Analyzes of Space Sciences Education Practices at NASA and the Brazilian Space Agency*. NOVA Science Publishers

Kibonge, L. B., Ruberg, L. F., & Wood, C. A. (April 16, 2013). Health, Safety, and Coal Mining Jobs. *Student Research and Scholarship Symposium*, Wheeling Jesuit University, Wheeling, WV.

Ruberg, L. F. (2013). NASA Responds to Climate Changes and Human Health Issues with Hydroponic Solutions. Invited presentations at the 8th ASOCIACIÓN HIDROPÓNICA MEXICANA A.C., 14-16 Mar 2013, Toluca, Mexico.

Ruberg, L. F. (2013). NASA Studies of Hydroponics for Extreme Environments and to Optimize Plant Production Invited presentations at the 8th ASOCIACIÓN HIDROPÓNICA MEXICANA A.C., 14-16 Mar 2013, Toluca, Mexico.

Ruberg, L. F., Cummings, M., Piecka, D. C. B., Ruckman, C., & Seward, R. (2011). A logical approach to supporting professional learning communities. *Knowledge Management & E-Learning: An International Journal*, 3 (4), 599-620.

Ruberg, L., & Piecka, D. (2011). Evaluating Mining Safety and Health Training, Technology Transfer, and Communications. American Evaluation Association annual meeting, November 2-5, Anaheim, CA.

Ruberg, L. F., Piecka, D. B., Calinger, M. (2011, March). Adding Value to Instruction with Strategic Use of Online Collaboratives. National Science Teachers Association Research Dissemination Conference on Emerging Technologies. San Francisco, CA

Piecka, D. C. B., Ruberg, L., & Ruckman, C. (2011) Self-discovery learning opportunities in NASATalk. In A. Hai-Jew (Ed.), *Constructing self-discovery learning spaces online: Scaffolding and decision making technologies*. Hershey, PA: IGI Global.

- Ruberg, L., Shia, J., Lightfritz, C., & Morgan, A. (2010). *Process evaluation of an immersion-learning experience for grades K-4 youth*. American Evaluation Association annual meeting, Nov. 8-13, San Antonio, TX.
- Ruberg, L., Calinger, M., & Howard, B. (2009). Evaluating educational technologies: Historical milestones. In L.A. Tomei (Ed.). *Designing instruction for the traditional, adult, and distance learner: A new engine for technology-based teaching*. Hershey, PA: IGI Global.
- Reese, D. D., Wood, C.A., Ruberg, L.F (2010). *MoonWorld*, 41st Lunar & Planetary Science Conference in Houston; <http://www.lpi.usra.edu/meetings/lpsc2010/pdf/1439.pdf>
- Ruberg, L., Wood, C. A., Reese, D. D., Lightfritz, C., & Harrison, A. (2009). *MoonWorld: Virtual Fieldwork in Second Life*. Paper presented at the meeting of the 40th Lunar and Planetary Science Conference, The Woodlands, TX. Abstract retrieved from <http://www.lpi.usra.edu/meetings/lpsc2009/pdf/2229.pdf>
- Ruberg, L., & Calinger, M. (2009). *Evaluation of educational simulations of extreme weather events*. American Evaluation Association annual meeting, Nov. 10-14, Orlando, FL.
- Ruberg, L. (2009, April). *Blending globalization and curriculum analysis to study technology-focused teacher training*. Paper presented at the annual meeting of the American Educational Research Association, San Diego.
- Ruberg, L., Smith, D., Shipp, S., Shupla, C., & Grier, J. (2008). Efforts of space science EPO professionals to meet the needs of pre-service students and faculty: Analysis of results. In C. D. Garmany, M.G. Gibbs; & J.W. Moody (Eds.), *EPO and a changing world: Creating linkages and expanding partnerships*, Vol. 389. Astronomy Society of the Pacific: http://www.aspbbooks.org/a/users/add_volume.
- Chen, C-H., Ruberg, L., & Martin, J. (2008). Modeling scientific inquiry through technology-mediated tools. In R. Kobayashi (Ed.), *New educational technology*. NOVA Publishers.
- Ruberg, L.F., Chen, C-H, & Martin, J. (2008, March). *Applying blended research methods to school-based intervention evaluation*. Paper presented at the annual meeting of the American Educational Research Association, New York.
- Chen, C-H., Ruberg, L., Hull, J., & Martin, J. (2008, March). *Promoting STEM teaching practices and student learning: A longitudinal impact of professional development*. Paper presented at the annual meeting of American Educational Research Association, New York.
- Ruberg, L., Chen, C-H., & Martin, J. (2007). *NASA Explorer Schools project evaluation: Summer 2003 to spring 2006*. Center for Educational Technologies, <http://www.cet.edu/?cat=publications&page=35>
- Ruberg, L., Martin, J., & Chen, H-C. (2007). *Value-added assessment: Teacher training designed to improve student achievement*. Evaluation in Education Multipaper Session 344. Evaluation 2007: Evaluation and Learning. American Evaluation Association annual conference, Nov. 7-10, Baltimore.
- Chen, K., Ruberg, L., & Martin, J. (2007). *Promoting science, technology, engineering, mathematics, and geography (STEM-G) through professional development: Learning from evaluation*. Poster presentation 131. Evaluation 2007: Evaluation and Learning. American Evaluation Association annual conference, Nov. 7-10, Baltimore.

- Ruberg, L., Smith, D., Shipp, S., Shupla, C., & Grier, J. (2007). *Efforts of space science EPO professionals to meet the needs of pre-service students and faculty: Analysis of results*. Astronomy Society of the Pacific 119th annual conference, Sept. 5-8, Chicago.
- Ruberg, L.F., Steel, S., & Wood, C. (2006, September). *Transforming scientific discoveries into exciting inquiry activities*. Astronomy Society of the Pacific, Baltimore.
- Ruberg, L.F. (2006, June). Aligning student learning with astronomy research: The Virtual Design Center. American Astronomical Society annual conference, Calgary.
- Ruberg, L.F., Grier, J. (2006, February). *Sensing energy: Light sources and detectors*. Pre-Service Teacher Conference, Alexandria, VA.
- Ruberg, L.F., Shipp S., & Smith, D.A. (2005, January). *Exploring ways to help pre-service teachers meet science education challenges* (Abstract 132.07). Poster session presented at the American Astronomical Society 205th annual meeting, San Diego.
- Ruberg, L.F. (2005, February). *Testing ideas about light with hands-on learning centers*. National AfterSchool Association annual conference, San Antonio, TX.
- Ruberg, L.F. (2004, November). *What kinds of support can the broker/facilitator program provide to support scientists involvement in E/PO?* Abstract of poster presentation at 36th annual American Astronomical Society Division of Planetary Sciences meeting, Louisville, KY.
- Ruberg, L.F., & Jones, S.P. (2004, July). Examining the potential for using space science as a context for teaching among minority-serving pre-service faculty. Poster presented at the *Proceedings of the Introduction to Cosmos in the Classroom Conference*. Medford, MA: Astronomy Society of the Pacific.
- Ruberg, L.F., Reese, D., Kirby, J., & Hernandez, V. (2004, June). *Bridging the gap between urban and rural schools with technology*. Paper presented at National Education Computing Conference annual meeting, New Orleans: International Society for Technology Education. <http://center.uoregon.edu/ISTE/NECC2004/program/>
- Ruberg, L. F. (2003, April). *Applying the design process to curriculum development in technology education*. Poster session presented at the American Educational Research Association, Chicago.
- Ruberg, L.F., & Baro, J.A. (2002). Designing graphical, interactive simulations to model scientific problem solving. In S. Naidu (Ed.), *E-Learning: Technology and the development of teaching and learning*. London: Kogan Page.
- Ruberg, L.F. (2002, September). *Know your content and how to deliver it*. NSF-/NASA-sponsored pre-service teacher conference, Effective Science, Technology, Engineering, and Mathematics Partnerships: Strategies for Success, Orlando, FL.
- Ruberg, L.F. (2001, June). Evaluation of program impact based on teacher implementation and student performance. *Proceedings from World Conference on Educational Multimedia, Hypermedia, and Telecommunications*, Tampere, Finland. Norfolk, VA: Association for the Advancement of Computing in Education.
- Ruberg, L. (2000, February). *Space station engineering and science activities for high school classes*. International Space Station Educators Conference, Houston.
- Ruberg, L.F., & McGee, S. (2000, April). *The role of instructional software in facilitating learner-centered science teaching*. Paper presented at the American Educational Research Association, New Orleans.

- Ruberg, L., & Neuenschwander, J. (2000, June). *Applying NASA research to project-based and problem-based curricula for grades 4-12*. National Educational Computing Conference.
- Ruberg, L., & Baro, J. (1999). BioBLAST: A multimedia-learning environment to support student inquiry in the biological sciences. In W. Bozeman (Ed.), *Educational technology: Best practices from America's schools*, (pp. 62-70). Larchmont, NY: Eye on Education.
- Baro, J.A., Coffield, J.E., & Ruberg, L.F. (1999). An integrated model of an advanced life support system for use in the high school classroom. *Society of Automotive Engineers Inc.* Publication No. 1999-01-2039.
- Ruberg, L. (1999, October). *Simulations for learning: Using NASA data to build instructional tools*. Partners in Education and Research Conference, Kennedy Space Center, FL.
- Ruberg, L.F. (1999, April). *Promises versus product: A problem-based learning environment*. Poster session presented at the American Educational Research Association, Montreal.
- Carlson, P.A., Ruberg, L., Johnson, T., Kraus, J., & Sowd, A. (1998). Collaborations for learning: The experience of NASA's Classroom of the Future. *T.H.E. Journal*, 25(7), 50-53.
- Ruberg, L.F. (1998, June). Simulations for learning: An inquiry-based approach to biology. *Proceedings from World Conference on Educational Multimedia, Hypermedia, and Telecommunications*, Freiburg, Germany. Norfolk, VA: Association for the Advancement of Computing in Education.
- Ruberg, L. (1997, April). *What is BioBLAST and how does it link with NASA's life science research?* Faculty seminar presented to NJ NSCORT faculty, Cook College, Rutgers University, NJ.
- Ruberg, L.R., Taylor, C.D., & Moore, D.M. (1996). Student participation and interaction online: A case study of two college classes—freshman writing and a plant science lab. *International Journal of Educational Telecommunications*, 2(1), 69-92.
- Ruberg, L.F., Moore, D.M., & Taylor, C.D. (1996). Student participation, interaction, and regulation in a computer-mediated communication environment: A qualitative study. *Journal of Educational Computing Research*, 14(3), 243-268.
- Ruberg, L. F. (1996). Bridging the gap between science education reform and space life sciences research. (1996, November). (Keynote presentation). Eco-Informa Annual International Ecology and Engineering Conference, Lake Buena Vista, FL.
- Ruberg, L.F., Scheckler, S., & Taylor, C.D. (1994). *Evaluating undergraduate learning in a technological environment*. Paper presented at the State Council for Higher Education in Virginia, Faculty Forum, Nov. 1994, Richmond, VA.
- Ruberg, L. (1994). Writing as interactive "discussion" in the multimedia classroom. *Connecting Through Writing*, 8-9. Center for Excellence in Undergraduate Teaching, Virginia Tech.
- Ruberg, L.F., & Sherman, T.M. (1993). Computer-mediated communication: How does it change the social-psychological aspects of teaching and instruction? *Educational Technology Research and Development*, 41(4), 122.

- Ruberg, L.F., Nespor, J., & Scales, G.R. (1993, October). *An ethnographic study of the impact of digital technologies on classroom learning: Visualizing change at Oakland elementary school*. Selected readings from the 25th annual conference of International Visual Literacy Association, Rochester, NY.
- Miller, M.G., & Ruberg, L.F. (1990). Putting the end-user first—A challenging but promising concept. *Interactive Instruction Development*, 3(2), 20-25.
- Ruberg, L.F. (1989). Human services on cable: A case study of a data retrieval system designed for public access. *Computers in Human Services*, 3(4), 233-241.
- Ruberg, L.F., & Miller, M.G. (1992, September/October). Moving from U.S. mail to e-mail. *Imagery in Science and the Arts*. Selected readings from the 24th annual conference of the International Visual Literacy Association, Pittsburgh, PA.
- Ruberg, L.F., Ruberg, G.E., & Schwab, J.L. (1992, September/October). Analysis of visual cues for an electronic bulletin board. *Imagery in Science and the Arts*. Selected readings from the 24th annual conference of the International Visual Literacy Association, Pittsburgh, PA.
- Ruberg, L.F., & Miller, M.G. (1992). Use of visuals to introduce computer novices to routine maintenance tasks. *Visual Communication: Bridging Across Cultures*, 409-418. Selected readings from 23rd annual conference of the International Visual Literacy Association, Blacksburg, VA.
- Ruberg, L. (1991). The ideology of images in educational media: Hidden curriculum in the classroom. *Virginia English Bulletin*, 41 (1), 137-140. Blacksburg, VA: Virginia Association of Teachers of English.