

# E-NARST NEWS

National Association for  
Research in Science Teaching

*Organized to improve science  
teaching through research*

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## Message from the President

*Jonathan Osborne, President of NARST*

Is Science Education coming of age? This is a question that I have been asking myself recently. Why? It is not only that NARST has grown from its small fledgling foundations in the 1960s to a membership of 1700. Or, that NARST held its most well attended conference ever last year in San Francisco. But, but rather, it is the growth of the field of science education, internationally, that raises this question. For instance, next year will see the 6th biennial conference of the European Science Education Research Association (ESERA) – at Malmö University, Malmö Sweden, a conference whose attendance has been steadily increasing. This year, I visited Taiwan where there are a growing number of academics working in the field



and publishing in leading journals. Likewise, in Turkey the field seems to have taken off in a big way with many staff appointments and a burgeoning number of doctoral students. And then, there are Singapore and Korea, where there are many excellent scholars working in this field. Over 400 people attended a conference on science education held in Singapore in November. In this sense, research in science education, once the preserve of the Anglo-Saxon world and a few elite European nations has become truly international. Indeed, the axis of science education is definitely moving eastwards.

*continued on page 2*

## In this Issue...

Message from the President: <b>1</b>	NARST Sessions at ASERA 2006: <b>15</b>
Message from the President-Elect: <b>3</b>	Publications Advisory Committee: <b>17</b>
2007 Workshops: <b>5</b>	Research Heritage: <b>19</b>
Experience New Orleans: <b>9</b>	External Policy Committee: <b>21</b>
Message from the Past President: <b>11</b>	Membership Committee: <b>22</b>
Research Committee: <b>12</b>	Global Warming: <b>24</b>
Meeting CSSP: <b>14</b>	<i>JRST</i> : <b>25</b>

### From the E-NARST NEWS Editor

*Barbara A. Crawford*

This issue is packed with NARST news and announcements of upcoming events, including messages from your NARST President, Past President, and Chairs of Committees. Be sure to read President-Elect Penny Gilmer's article highlighting keynote speakers, pre-conference workshops, committee-sponsored symposia, and strand paper sets at our upcoming 2007 Annual Conference in New Orleans. Please be aware that after the devastation of Hurricane



Katrina, the NARST Board voted to keep our 2007 conference in New Orleans, as a show of good faith for a city that is rebuilding. We sincerely hope to see you all in New Orleans! Thanks to Penny Gilmer for many of the photos in this issue.

# Message from the President

*continued from page 1*

During the past decade, we have also seen the arrival of more journals; for instance, the *Canadian Journal of Science, Mathematics and Technology Education* and the *International Journal of Science and Mathematics Education*. Meanwhile, the *International Journal of Science Education* has expanded to 15 volumes a year, and next year the first three editions of *JRST* will carry extra pages to catch up with the backlog of submissions. For anyone working in the field, one of the problems is the sheer volume of literature and just finding the time to go through the inevitable process of sifting the wheat from the chaff. However, for the field as a whole it must be a good thing. Not only are there more young people emerging to take on the mantle of conducting research that still needs to be done; but, it means that a body of work has been established which is attracting and engaging to new graduates. Perhaps, what we need to do now is to pause and take a breath – ask ourselves in a more considered way, what are the main tenets of all this work that really matter?

There is little doubt that attempts to identify the seminal papers of the past 40 years, published in the special issue of *JRST* last year, are helpful. Similarly, handbooks like the one just published on research in science education and

edited by two NARST Past-Presidents, Sandi Abell and Norm Lederman, are other valuable means of distilling the achievements of the field (note that this will be available at a discounted price for NARST members). However, perhaps as a field, is it time we devoted more effort and thought to taking stock, before rushing headlong into yet more empirical research study? For instance, would it be of benefit to conduct more extensive reviews of the field, so that we asked better questions? For me, this issue is typified by a colleague who is an educational psychologist of the armchair variety. After a particularly stimulating presentation one student approached him and said – ‘those ideas of yours are really fascinating – have you ever thought of collecting any data?’ ‘Good god no!’ he responded. ‘There is enough data out there without going and collecting any more.’ Would research in science education benefit if a few more of us took this perspective, and just sifted through what we already know using fresh eyes?

One way of at least thinking about this issue is by attending the next NARST conference in New Orleans at the Sheraton from April 15-18. Once again, we have a large number of presentations of current research and I look forward to seeing as many of you as possible in New Orleans.

## NARST Conference



# New Orleans, Here We Come!

*Penny J. Gilmer, President-elect*

The NARST Board welcomes all of you to our upcoming 80th NARST annual meeting in New Orleans from April 15-18, 2007 at the Sheraton New Orleans Hotel at 500 Canal Street. We have a full program with interesting keynote speakers, workshops, symposia, paper sets, posters, and a new format called Work in Progress. We had over 740 submitted proposals plus NARST committee-sponsored symposia and three pre-conference workshops plus one workshop during the conference. You will be able to register for the meeting early in January 2007.



The theme of the conference is Restructuring Science Education Through Research. Our two keynote speakers and their topics are as follows:

- D. David Pearson from University of California, Berkeley, speaking on “The role of reading, writing, and language in supporting inquiry-based science in our schools: Why we must lead with the science.”
- Kenneth Tobin from the Graduate Center of the City University of New York, speaking on “Toward a brighter future for science education: Cogenerating success through participatory inquiry.”

Both keynote addresses will be in the morning from 8:30 – 10:00 AM. Pearson’s will be on Monday and Tobin’s on Wednesday.

The Research Committee, chaired by Pamela Fraser-Abder chose two pre-conference workshops, to start on Sunday morning, going from 8:30 AM – noon. The following presenters will give one of the two workshops on the following interesting and relevant topics to our conference theme:

- Joseph D. Novak and Alberto Canas will present the workshop, “The Use of Concept Maps for Improving Research, Teaching, and Learning.”

- Xiufeng Liu and William J Boone will present the workshop, “Applications of Rasch Measurement in Science Education.”

The Equity and Ethics Committee has organized a third pre-conference workshop, also on Sunday from 8:30 - noon. The title of this workshop is, “Scholars from underrepresented groups and the Academy,” with a focus on specific strategies for developing a research trajectory and gaining voice in the academy. The two keynote speakers are Pauline Chinn, University of Hawaii, and Mary Atwater, University of Georgia. After Dr. Chinn presents the opening keynote presentation, participants will work in small groups, led by scholars of color: Eileen Parsons, Maria Rivera Maulucci, Felecia Moore, Scott Dantley, and Bhaskar Upadhyay. The workshop will close with Dr. Atwater providing concluding remarks.

When you register for the meeting, if you want to attend one of these workshops there is a small extra charge, so sign up at that time. Except, the Equity and Ethics workshop is free. In addition, we have a no-cost (but high benefit) workshop during the meeting by NSF Biology Program officer, Nancy Pelaez, titled “Writing an effective NSF grant proposal.”

After the workshops the rest of the conference starts on Sunday afternoon at 12:30 PM, with sessions at that time, going until 5:45 PM. So plan to arrive at the latest by Sunday morning; but if you arrive on Saturday, you can enjoy the nightlife of New Orleans before the conference starts. The Presidential and welcome reception will be from 7:00 to 9:00 PM on Sunday, the first evening of the conference.

By now you all should have received your notification if your proposal was accepted or not. If you did not look at the comments from your assessors, you may access them through the Web site where you first entered your proposal: <http://www.narst.org/abstracts/index.cfm>. All you need to do is enter your e-mail address and password (if you forgot your password, there is a place where you can request it). We now have that page set to go directly to the reviews. The individual who initially posted the proposal is the only one who can access the reviews. Reviews can be forwarded to your coauthors by simply copying and pasting and sending them by e-mail.

*continued on page 4*

# New Orleans, Here We Come!

*continued from page 3*

There are three tables that go with this article. Each describes interesting sessions that we will have at our annual conference. Table 1 shows strand-specific symposia or paper sets. I indicated all accepted symposia for each strand, and if there was less than two for a strand, I included an accepted paper set. I thought you would be interested to see some of the strand-specific organized sessions.

Table 2 shows the four workshops. Three are pre-conference workshops, and they start at 8:30 AM and go until 11:30 AM on Sunday, April 15th. The other is a workshop during the conference by one NSF program officer for biology, Nancy Pelaez, on how to write NSF grants that get funded!

Finally, Table 3 shows NARST committee-sponsored symposia, indicating the organizer, the featured speakers, and the title of the symposium. I included our FARSE social event for Tuesday evening. The Equity Dinner is Monday night. This is our 10th Anniversary.

I would especially like to thank Program Co-Chair, Past President Jim Shymansky, who has helped me

tremendously this year, as we started working with our new management company, DMG, and with our new proposal submission and review system. Jim was always quick to volunteer to help whenever needed, and he followed through! Thank you, Jim!

Also I would like to thank our 31 strand coordinators who helped us with developing our conference program for 2007. We all learned together how to utilize our new proposal submission and review process. It was quite an undertaking to develop the entire Web site with the help of our podi.com President, Paul Finkel and programmer, Dennis Mercer. Hopefully, you found our submission process and web site useful and helpful.

Also we had a wonderful team of assessors who provided timely and critical feedback to the authors of the submitted proposals. Thank you!! All of you will be acknowledged in the program for the conference.



Kim Stegmaier from DMG, our management company, has included information on New Orleans in this E-NARST News, to help you get to New Orleans, find your way to our hotel and identify interesting things to do (which are a plenty in New Orleans). Be sure to go down near the river to Café du Monde, the original French Market Coffee Stand at Old Jackson Square, to enjoy their coffee and powdered sugar-covered beignets. Also the jazz is great in New Orleans, so enjoy that as well. Both are a tradition in New Orleans!

Robin Turner, our DMG representative, has helped in the process and will continue to do so as we finish putting our program together and running the conference.



Photo by Penny Gilmer

## Want to Serve on the NARST Standing Committee?

If you would like to have the opportunity to serve on one of the eight NARST standing Committees (see <http://www.narst.org/info/committees-new.html> for a list of them and their charges), please contact President-elect Penny J. Gilmer at [gilmer@chem.fsu.edu](mailto:gilmer@chem.fsu.edu). Indicate which committee interests you and what your qualifications and interests are for this committee

# Workshops

**TABLE 1:**

## Selected Symposia and Related Paper Sets by Strand at NARST 2007

STRAND	PROPOSER	TITLE
1	Richard Duschl	Learning science in grades K-8: A new research synthesis
1	Anil C. Banerjee	Enhancing student learning in chemistry
2	Carla Johnson	Effective standards-based instructional environments and narrowing of achievement gaps in science: What the research tells us and where to go from here?
2	Suzanne Reeve	Connecting science learning to personal health: Understanding the influence of instruction, family, social networks, and institutions
4	Lynn Stephens	Analyzing the use of teaching strategies in a model-based curriculum: Promoting expert reasoning and imagery enhancement in high school students
4	Peter Labudde	Video-based analyses of German and Swiss introductory physics instruction dominating instructional patterns and teachers' views
5	Martin Balinsky	Scientists learning science: A collaborative partnership between science doctoral students and K-8 science teachers
5	George Bodner	Theoretical frameworks for research in science education
6	Doris Ash	Researching language, learning and engagement in informal science institutions
6	James Kisiel	Tuxedo junction: Improvisation with formal and informal learning
7	John Tillotson	Teacher professional continuum research: Cross-project comparisons of practical, theoretical and methodological considerations in conducting large-scale teacher education research studies
7	Joseph Berger	The alternative certification of science teachers: Findings from the NSF-funded STEM ACT conference
8	Sonya Martin	Rethinking professional development partnerships: Coteaching as a means for investigating, changing and renewing praxis
8	Jonathan Singer	Re-conceptualizing the structure of professional development: Integrating content, pedagogy and practice through middle school and university partnerships
8	Dale Baker	The Communication in Science Inquiry Project (CISIP): Lessons learned from professional development with secondary teachers
8	Pamela Fraser-Abder	Professional development in an urban setting: University, school and beyond
9	Melina Furman	Transformative action research in urban science education

*continued on page 6*

**TABLE 1:**

STRAND	PROPOSER	TITLE
10	Molly Yunker	Identifying the big ideas in nanoscience
10	George DeBoer	Assessment linked to science learning goals: Probing student thinking through assessment
10	Phillip Sadler	Programmatic assessment: Tools for informed restructuring of curriculum
10	Carol O'Donnell	Considering the role of fidelity of implementation (FOI) in science education research: Analyzing the relationship between FOI and student outcomes in a quasi-experiment
10	Avi Hofstein	Emphasizing thinking skills and metacognition through reading chemical articles and inquiry-based experiments
11	Felecia Moore	Promoting new directions in science education
11	Kate Scantlebury	Re-visioning science education from feminist perspectives: Challenges, choices and careers
11	Edna Tan	Supporting teachers in fostering youth agency and learning in low income urban communities
11	Glenda Prime	Challenging some myths about urban science education
11	Bryan Brown	Building rigorous science education through students' and teachers' experiences
12	Kathleen Roth	Teacher learning from videocases of science teaching: A conceptual framework
13	Richard Duschl	Inquiry and the learning of science theories and practices
13	David Jackson	The 'other' literature of evolution/creationism and a serious attempt at its application
13	Lawrence Scharmann	Views of the nature of science from biology, philosophy /theology, pre-service instruction, international perspectives, scientists, and a (Kansas) classroom teacher
14	Steven Semken	Cognitive and affective outcomes of a southwest place-based approach to teaching introductory geoscience
14	Pauline Chinn	Indigenous knowledge contributions to environmental education

**Table 2:****Workshops at NARST 2007**

Type of Workshop	Presenter(s)	Title
Pre-conference	Joseph D. Novak Alberto Canas	The Use of Concept Maps for Improving Research, Teaching, and Learning
Pre-conference	Xiufeng Liu William J. Boone	Applications of Rasch Measurement in Science Education
Pre-conference	Mary Atwater Pauline Chinn Eileen Parsons Maria Rivera Maulucci Felecia Moore Scott Dantley Bhaskar Upadhyay	Scholars from Underrepresented Groups and the Academy
Within conference	Nancy Pelaez	Writing an Effective NSF Grant Proposal

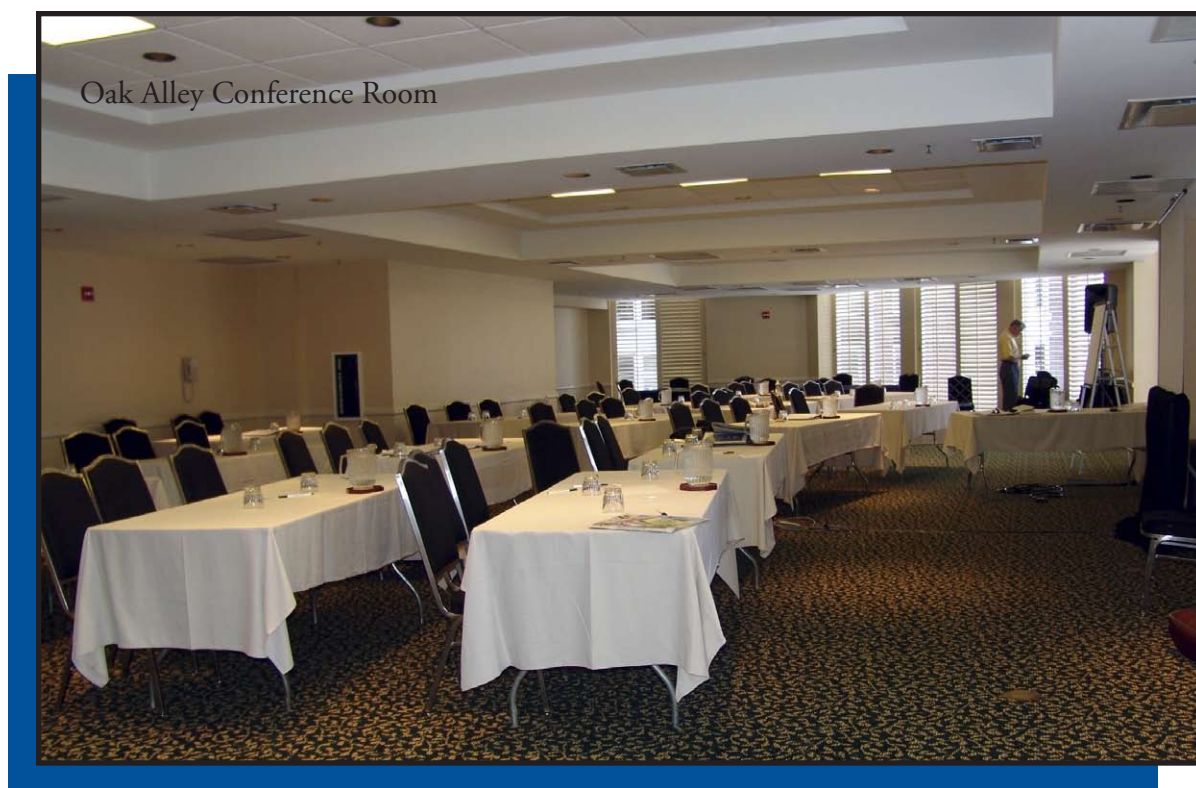
**NARST Committee-sponsored Symposia at NARST 2007**

Committee	Organizer	Speaker(s)	Title
Program: Plenary Address	James Shymansky	J. David Pearson	The role of reading, writing, and language in supporting inquiry-based science in our schools: Why we must lead with the science
Program: Plenary Address	Penny J. Gilmer	Kenneth Tobin	Toward a brighter future for science education: Cogenerating success through participatory inquiry
Presidential	Jonathan Osborne	Ron Good James Shymansky Larry D. Yore Michael Vitale Nancy Romance	A critical look at science education as a field of research
Publications Advisory Committee	Barbara Crawford	Nancy Brickhouse Angelo Collins J. Randy McGinnis Charlene Czerniak Norman Lederman Michael Kamen James Shymansky Ken Tobin	Into the fire: Current issues of publishing science education research
Publications Advisory Committee	Barbara Crawford	J. Randy McGinnis Angelo Collins	Publishing in the Journal of Research in Science Teaching
International	Saouma BouJaoude	Saouma BouJaoude Justin Dillon Pamela Fraser-Abder Avi Hofstein Reachel Mamlok-Naaman Fouad Abd-El-Khalick	Professional development of science educators worldwide
International	Saouma BouJaoude	Leonie Rennie Denis Goodrum Donna King Cora Cambell Anne Hume	Curriculum changes in science education in Australia and New Zealand: Challenges and opportunities
Research	Pamela Fraser-Abder	Larry D. Yore Brian Hand Mack Shelley Donna Alvermann Nancy Brickhouse Jonathan Osborne	The gold standard of science education research: Does one size fit all problems?
Research	Pamela Fraser-Abder	Patricia Simmons Vincent Lunetta John Penick	Research Agenda in Science Education
Research	Pamela Fraser-Abder	Kathleen Fisher	Semantica Pro software: A potential tool for educational researchers
Membership and Elections	Brian Fortney Alan Blakely	Allan Harrison Penny J. Gilmer Randy Bell Valarie Akerson John Tillotson	New researcher orientation
Membership and Elections	Alan Blakely Brian Fortney	Those choosing to sign up as mentors and mentees	Mentor-mentee nexus

*continued on page 8*

**Table 3:**

Committee	Organizer	Speaker(s)	Title
Membership and Elections	Alan Blakely	Allan Harrison Grady Venville Fouad Abd-El-Khalick Alan Blakely	Graduate student and junior faculty early career discussion
Equity and Ethics	Angela Calabrese-Barton, Terry Arambula-Greenfield, Heidi Carlone	Gail Jones Stephanie Kurtts Catherine Matthews Kimberly Bowie Tammy Smallwood William Sharpton	Inclusionary science teaching
Ad hoc Committee on the History of Science Education	Fouad Abd-El-Khalick	Audrey Champagne Reinders Duit Jane Kahle Anton Lawson Norman Lederman	Research in science education: How well does our research build upon, and is guided by, existing research?
FARSE	Ron Good	Ron Good Sherry Southerland Norm Lederman & other FARSEical characters	FARSE 2007





# Experience New Orleans

E-NARST News Volume 50 (1), February, 2007

The most celebrated and historic core of the city not only remains intact, both physically and spiritually, but is also thriving. The cultural riches, sensual indulgences and unparalleled service that define the New Orleans experience continue to flourish, as they have for centuries.

New Orleans is known for unforgettable dining, intoxicating live music, Old World charm and good time living, and the Sheraton New Orleans Hotel is at the heart of it all. Its superb location on historic Canal Street borders the French Quarter and is only steps away from the Mississippi River, world-class shopping, entertainment award-winning restaurants and much more. Connect with the sights, sounds and flavors, and let the good times roll.



Fare for streetcars is \$1.25. Fare for the Riverfront Streetcar and express buses is \$1.50. Exact fare is required. Driver cannot make change, but you can pay for more than one person at a time (4 people can get one way fare for \$5).

All day passes are \$5.00 if you buy them from the driver or from a hotel/visitor information kiosk. The only difference is that the pass from the driver is good for both Jefferson and Orleans Parish buses.

The three-day pass is only available from hotels/retailers (not the drivers) and is \$12.00.

For more information, call (504) 569-2700.

**Public Buses:** Public Buses are the most economical mode of transportation, but you have to be willing to take your time. It is a carefree way to see the city.

Around town - \$1.25; Express - \$1.50. You can also purchase a "visitors pass" which entitles you to unlimited rides on all streetcars and bus lines. Available at hotels and shopping areas. Cost: \$5.00 for one day, \$12.00 for three days.

## Getting to and from New Orleans:

### Louis Armstrong International Airport (MSY)

Formerly New Orleans International Airport. The airport is located in Kenner, approximately 15 miles west of downtown.

**Taxis:** A cab ride costs \$28.00 from the airport to the Central Business District (CBD) for one or two persons and \$12.00 (per passenger) for three or more passengers. Pick-up is on the lower level, outside the baggage claim area. There may be an additional charge for extra baggage. \$1 fuel surcharge added to total fare.

Call United Cabs (504) 522-9771.

**Airport Shuttle:** Shuttle service is available from the airport to the hotels in the CBD for \$13.00 (per person, one-way) or \$26.00 (per person, round-trip). The shuttle runs every 10 minutes till the last flight of the night. \$2 fuel surcharge added to total fare.

Call 1-866-596-2699 or (504) 522-3500.

## Getting around New Orleans:

**Taxi - United Cabs:** United Cabs, Inc. is one of the oldest, and largest Taxi companies operating in New Orleans. A taxi ride within the city will cost you \$1.20 mile with a \$2.50 drop charge and \$1.00 charge for each additional passenger.

Call (504) 522-9771 for reservations.

**Streetcars:** The streetcars are not only a form of public transportation, but they are a tourist attraction as well. Experience a mode of transportation that dates from the 1800s.

The buses run different schedules (any where from 10 to 20-minute intervals). You can obtain bus route lines and times from the driver.

For more information, call (504) 737-9611.

**Car Rental:** Overnight parking at the Sheraton New Orleans is \$24.99 plus tax. Most of the major car rental companies have pick-up and drop-off terminals at the airport. If you wish to rent a car, please make arrangements before leaving for New Orleans.

## Local Tours, Entertainment, Things to Do, Etc.

**Restaurants:** New Orleans has launched some of America's most acclaimed chefs and some of the world's most original creations. Gumbo, red beans and rice and jambalaya are among the cuisine choices of the city. Oysters and crawfish are also two items seen on many New Orleans menus. Below are lists of world-famous restaurants located in New Orleans, as well as some local favorites!



continued on page 10

# Experience New Orleans

*continued from page 9*

## Renowned restaurants:

- Galatoire's
- Emeril's
- Arnaud's
- Commander's Palace
- Delmonicos
- Bayona
- Palace Café
- K-Paul's
- Bourbon House
- Broussard's
- Antoine's.
- Brigsten's
- Restaurant August
- Lilette



## Neighborhood hot spots:

- Mother's
- Casamento's
- Ralph's on the Park
- Clancy's, Jacques-Imo's
- Upperline
- Acme Oyster House
- Cafe du Monde
- Muriel's
- Tujague's
- Tommy's
- Pascal's Manale
- Gumbo Shop

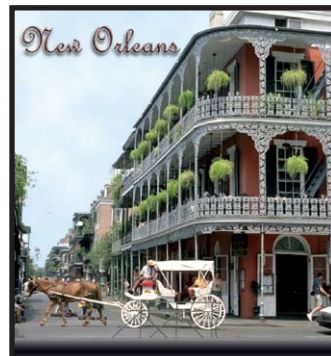


## Universities:

- Dillard University
- Loyola University
- The University of New Orleans
- Tulane University
- Xavier University

## Things to see and do in New Orleans:

- New Orleans Streetcars
- French Market/Farmers Market
- French Quarters/Bourbon Street
- Audubon Aquarium of the Americas
- City Park
- Harrah's Casino
- Riverwalk Shopping
- Garden District
- Lafayette Cemetery
- National D-Day Museum
- St. Louis Cathedral
- Jackson Square
- New Orleans Museum of Art
- Haunted History/Ghost Tours
- Louisiana Swamps
- National World War II Museum
- Nottoway Plantations
- Audubon Zoo
- Mississippi River
- House of Blues



## *NARST is on Solid Footing*

*Jim Shymansky, Past President*

**M**y three-year term on the board will come to an end with the board meeting prior to the conference in New Orleans. To say the time has flown by quickly is an understatement! I am happy to say though that in this brief time, a lot of decisions were made that will positively impact NARST for years to come. Among the actions taken, two stand out:

1. Contracting the Drohan Management Group (DMG) to handle the main administrative and accounting functions including such things as website management, membership renewals, conference registrations, publications and promotions. Under this plan, the previous position of “annual meeting coordinator” has been eliminated and the position of “Executive Director” has been redefined. We on the board think that involving a professional management company will result in improved efficiency and member services all around.

2. Extending our JRST publishing contract with Wiley through the year 2020 that included increased royalty rates, a “signing bonus” of \$100,000, and an annual payment of \$35,000 to support editorial operations. Wiley also agreed to digitize the complete volume set of JRST (since 1962)—the set is now available to NARST members on-line. The following website provides information on this database:

<http://www3.interscience.wiley.com/cgi-bin/jabout/31817/ForAuthors.html?CRETRY=1&SRETRY=0>

The handsome royalties from the journal are a testament to the quality and value of our journal and will help support and subsidize more services to our membership. And I am especially pleased and excited about the Internet access to the full contingent of journal volumes.



*President Jonathan Osbourne with  
Past President Jim Shymansky*

In addition to the above actions, the board is considering several changes in the by-laws, including the following:

1. Removing the restriction that candidates for President must have served on the NARST board, so that the elections committee can tap the experience and interest of the full membership.

2. Giving the membership input into the annual budget by requiring the membership to approve expenditures from organization reserves when those expenditures exceed a given percentage of the annual budget (that percentage still to be determined).

Let me conclude by saying that NARST is on very solid footing and the future is

bright. But it is only as strong as the members it serves; I encourage all of you to stay involved and informed by volunteering for committees, reading the E-NARST News and various reports, and attending the Annual Conference. It has been a pleasure to serve on the board these past two and a half years and I look forward to serving you in these last few months of my term.

*NARST is on very solid  
footing and the future is  
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## *Research Committee to Sponsor Sessions and Survey of Strands*

*Pamela Fraser-Abder, Chair*

This year our committee members are: Pamela Fraser-Abder, Randy Yerrick, Anat Zohar, Dan Shepardson, Mike Vitale, Nikki Hanegan, Martina Nieswandt, and Troy Sadler. At the upcoming Spring meeting Pamela will end her service as Chair and will be replaced by Randy, this year's Co-Chair.

As you may know the responsibilities of the Research Committee include soliciting proposals, reviewing and selecting the conference workshops, as well as the committee sponsored strand sessions for the Spring Annual Meeting. This year the committee selected two outstanding Pre-conference workshop sessions:

*1) The Use of Concept Maps for Improving Research, Teaching, and Learning Joseph D. Novak & Alberto Canas*

This workshop will offer guidance in the use of CmapTools, a software program developed at IHMC, for use in research, teaching, curriculum planning, collaborative work, and knowledge archiving.

*2) Applications of Rasch Measurement in Science Xiufeng Liu & William J. Boone*

This workshop intends to demystify Rasch models to the science education community so that more researchers appreciate their power and become confident in applying them in solving significant science education research problems. Presenters will introduce basic terms and ideas of Rasch models, major computer software tools for Rasch analysis including hands-on practice using a free Rasch analysis software (BIGSTEPS), and demonstrate sample applications of Rasch measurement in developing science measurement instruments using real data. This workshop will also introduce a large collection of resources (mostly online) for further study.

In addition the committee is proud to sponsor two sessions at our annual meeting. These sessions are: 1) *The Gold Standard of Science Education Research-Does One Size Fit All Problems?* Larry D. Yore; Brian Hand, Mack Shelley, Donna Alvermann, Nancy Brickhouse, Jonathan Osborne and 2) *Semantica Software for Restructuring Teaching & Learning.* Kathleen Fisher.

We trust that the selections of the committee will offer relevant and powerful insights to the membership, which will help shape important research directions for our organization. We also want to extend to the entire membership an invitation to submit a proposal this spring for 's Research Committee Sponsored Session. For anyone interested in presenting cutting edge research methods, tools, or reports central to the mission of the organization, it is not too early to be thinking of workshops for next August's submission deadline.



*Pamela Fraser-Abder, Chair of the Research Committee invites members to express views of new strands.*

Other Research Committee responsibilities

include revisiting and revising research strands to keep in alignment with national and international findings and issues. This responsibility is, of course, an ongoing process and will be continually updated in step with NARST's policies and procedures. Committee members worked with Penny Gilmer and Jim Shymansky to revise the strands for our New Orleans meeting.

## *Research Committee to Sponsor Sessions and Survey of Strands*

We need the help of the NARST membership in completing an upcoming survey. We are interested in assessing the membership of the extent of interest in these new strands, as well as ideas for future strands. We are currently developing an evaluation protocol to obtain member feedback on the viability of the existing strands. We will make the survey available both online and at the next annual meeting to attain the maximum response. We ask all members to please participate to keep the efforts to revise these strands valid.

**NARST** has sessions available at National Science Teachers Association (NSTA) conferences: 2 hours of sessions at each of the Area conferences and 10 hours at the national conference.

### *In 2007-2008 NSTA*

#### *Area conferences:*

Detroit October 18-20th 2007

Denver November 8-10 2007

Birmingham December 6-8, 2007

### *NSTA National Conference*

Boston March 27-30 2008

The committee invites members who have been accepted to present at the upcoming NARST New Orleans meeting to consider submitting their proposals to any of the NSTA meetings (area or national). It is a good opportunity for you to inform classroom teachers of your research findings.



*Randy Yerrick, Co-Chair of Research Committee works at his laptop during the 2006 October Board Meeting*

Finally, we welcome your feedback and ideas. Your involvement in this committee's work helps to make our efforts as an organization more focused and relevant to today's educational context.

We need the help of the **NARST** membership in completing an upcoming survey. We are interested in assessing the response of the membership to determine the extent of interest in these new strands as well as soliciting feedback on potential future strands.

## *Networking in Washington with the Council of Scientific Society Presidents (CSSP)*

*Barbara Crawford, Board Member and Chair,  
Publications Advisory Committee*

NARST is an affiliate member of the Council of Scientific Society Presidents (CSSP), a center of science policy development and science leadership development. CSSP encourages communication among its members, and advises members



of Congress on issues related to science and mathematics. CSSP involves about 60 scientific and science education associations, including the Botanical Society of America, Ecological Society of America, National Association of Biology Teachers, American Academy of Forensic Science, American Chemical Association, National Science Teachers Association, and others. Barbara Crawford attended the December meeting in Washington, D.C., representing Penny Gilmer, NARST President Elect. Other NARST members attended, Janice Koch and Patricia Simmons representing ASTE. Several CSSP Committees focus on issues important to NARST including: 1) Public Appreciation of Science, 2) Information Technology, and 3) Science and Math Education. One issue raised during the December meeting related to digital scholarly publishing, and public understanding of computation. New publishing models involve storing raw data electronically. Another issue related to public appreciation of science. It is important that the public gain a sense of the nature of science, what it is like to be a scientist and how science is done. Scientists may need ideas and strategies for ways to go about this. A call for action included preparing a How-To Book for scientists on engagement with the public. The committee distributed a survey to gather viable strategies used by various CSSP members in this area, including the places where public outreach is provided; church, library, shopping malls, museums, or newspapers

Scientists made presentations on Frontiers of 21st Century Science. Dr. Bonnie Bassler, Princeton University, presented her latest research on Prokaryotic Bacterial Cells, Tiny Conspirators and Biofilms. Bacteria do everything with just a few thousand genes. Government officials reported on current priorities in Washington. A representative of the National Science Foundation addressed math and science education. Priorities include our ability to live sustainably on earth; attracting a diverse population to science; and more and better use of informal science in engaging the public. Robert Berdahl, Association of American Universities, pointed out issues of accountability and access to universities. Recent reports are very critical of higher education. Berdahl recommended that we should not leave the teaching of science and math to Schools of Education; rather, we should look at programs such as University of Texas and the School of Natural Resources. The attack on Colleges of Education as preparers of teachers appears to be in the forefront of the news, and should certainly be a critical issue that NARST could well address in a position statement.



*In the U.S. House of Representatives with the  
CSSP Delegation*

National priorities include our ability to live sustainably on earth; attracting a diverse population to science; and more and better use of informal science in engaging the public.

## NARST Sessions at ASERA 2006 Conference in Australia

*Saouma Boujaoude,  
Chair International Committee*

The International Committee and Membership & Elections Committee organized a set of NARST papers for the 2006 Australian Science Education Research Association (ASERA) annual conference in Canberra, ACT, Australia, July 5-8.

The purpose of this activity was to build collaborations with other international science education research associations, similar to the set of papers presented at the 2005 European Science Education Research Association (ESERA) biennial conference in Barcelona, Spain. Presenters were sought, and 3 North American NARST members volunteered to present papers—Marcia Linn, Brian Hand, and Larry Yore. President-

Elect Penny Gilmer and colleague Jennifer Cirillo, Florida State University also presented at ASERA, although not part of the NARST-sponsored paper set. The title of their presentation was *Cogenerative Dialogue with University Students in a Biochemistry Classroom*

It was Marcia and Larry's first time to attend ASERA, and Brian celebrated a return to his native land and discourse community. Their paper titles and abstracts were:

1. *Gold Standard(s) for Research in Science Literacy: Results of an NSF-sponsored International Conference at the University of Victoria's Dunsmuir Lodge, October 24-30, 2005* by Larry D. Yore, University of Victoria, and Brian M. Hand, University of Iowa. The United States Education Sciences Reform Act (2002), which outlined a 'Gold Standard' for research, has put the

education research community in a 'Back to the Future 1970 version' when the qualitative-quantitative wars raged. The Gold Standard(s) for quality research in science literacy conference was sponsored by the National Science Foundation (USA) to bring together leading international statistical, cognitive science, literacy, and science education experts, as well as

junior faculty members and graduate students, to explore the 'gold standards' needed to move science literacy research forward. This presentation will provide the background for the 'Gold Standard', the shared insights from the 'Second Island' conference, and the planning committee's reflections on the conference outputs. New considerations include: ethics review panels, mining educational results, and promoting quality standards for research questions, procedures, and reported results.



*Saouma Boujaoude, Chair of the International Committee and Fouad Abd-El-Khalick collaborate at the NARST October Board Meeting*

2. *Technology-Enhanced Learning in Science (TELS) by Marcia Linn, University of California, Berkeley.*

The overall research question addressed by the NSF-funded Technology-Enhanced Learning in Science (TELS) Center is whether interactive scientific visualizations embedded in high quality instructional units can be used to increase pre-college student learning in science. The research draws on the knowledge integration framework to guide the design of instructional modules, professional development activities, and assessment activities. This paper reports on results from the first year where 50 teachers taught one of the 12 TELS modules in over 200 classes in 16 diverse schools. Assessments scored with the knowledge integration rubric showed that students made progress in learning

*continued on page 16*

## NARST Sessions at ASERA 2006 Conference in Australia

continued from page 15

complex science topics such as electricity, mitosis, mechanics, chemical reactions, global warming, and genetic inheritance. Teachers encountered primarily technological obstacles that the research team was able to address prior to implementation. Powerful scientific visualizations required extensive instructional supports to communicate to students. Currently, TELS is refining the modules, professional development, and assessments based on evidence from the first years. Preliminary design principles intended to help research teams build on the findings will be presented for audience feedback and discussion.

3. *Examining the Impact of Teacher Implementation on Student Performance on Standardized Testing When Using the Science Writing Heuristic in K-6 Science Programs* by Brian Hand, University of Iowa; Lori Norton-Meier, Murat Gunel, and Recai Arkkus, Iowa State University.

This paper reports on a 3-year funded project that is following 32 K-6 teachers as they implement an inquiry approach that embeds language practices within science classrooms to promote success in both science and language. The approach titled the Science Writing Heuristic has shown to be effective in helping improve student test scores - however, this improvement is dependent upon the quality of the pedagogy implemented. Teachers who increased the amount of student negotiation of claims and evidence, promoted more purposeful reading of informational text and encouraged expanded writing practices were able to achieve greater success.

Participating in the 2006 ASERA conference was a worthwhile experience for the presenters and hopefully it provided benefits to the ASERA members.

Larry states, "I was impressed with the supportive, honest, scholarly debate that occurred in the presentations. Presentations by graduate students and sage veterans were

rigorously dissected by firm and caring minds. Breakfast, lunch, happy hours, and a closing dinner provided ample time to build social capital with members and to establish and renew networks. Both the beer and wine were great, but the conversation was even better!"

Marcia states, "I encourage folks to attend the ASERA meeting to meet collaborators with similar interests,

"Breakfast, lunch, happy hours, and a closing dinner provided ample time to build social capital with members and to establish and renew networks"

– Larry Yore at ASERA

build an international community, and enjoy the famous hospitality 'down under'. I found that the Technology Enhanced Learning in Science (TELS) central issues of valid assessments, promising uses for technology, and design of curriculum materials that

enable students to integrate their ideas resonated with the concerns of those attending the conference."

Brian states, "I enjoyed the experience of getting back to ASERA. Having started my journey into science education research in this organization, it was great to be able to touch base with this group again. An important reminder for me was to touch base with people and hear about conditions and opportunities that exist for research within the Australian and New Zealand university systems. I would strongly encourage participation in these joint international opportunities."

Several new and unique research projects, curriculum developments, and data collection and analysis tools were evident in the ASERA presentations. Furthermore, it was noted that ASERA members had reasonably direct access to many politicians and decision-making processes in their home countries. This potential lobby effect of research and scholarship on educational policies, funding, and practices was refreshing and highly coveted. The International Committee has extended an invitation to ASERA to organize a paper set for the 2007 NARST meeting as a committee-sponsored event.



## ***Publications Advisory Committee to Sponsor Session on Current Issues in Publishing Science Education Research***

*Chair, Barbara Crawford*

### **Session to raise issues at the 2007 New Orleans Conference**

Members of the Publications Advisory Committee, Marcelle Siegel, Bill McComas, Hedy Mosconi, and Barbara Crawford are pleased to sponsor a session at the 2007 New Orleans Conference titled, *Into the Fire: Current Issues of Publishing Science Education Research*. This symposium will focus on current and controversial issues in publishing science education research. Participants include past and present editors of a spectrum of leading research journals in science education. The journals represent a range of research, including qualitative and quantitative, and use various publishing formats, including electronic. During this open format session each Editor will have opportunity to give his or her views on publishing in the Editor's particular journal. Many of the issues will include those raised by NARST Past President, Jim Shymansky, in his 2006 NARST conference Presidential Address. (See *E-NARST NEWS* July issue for a copy of the speech.) Examples of issues include style of publication, peer review, length of articles, publishing supplemental materials, electronic publishing, and others. There will be time for questions from the audience.

Upcoming symposium at 2007 Conference, *Into the Fire: Current Issues of Publishing Science Education Research*.

Organizer and Presider: Barbara A. Crawford, Chair, NARST Publications Advisory Committee:

**Nancy Brickhouse**, *Science Education*

**Angelo Collins and J. Randy McGinnis**, *Journal of Research in Science Teaching*

**Charlene Czerniak**, *Journal of Science Teacher Education*

**Norman Lederman**, *School Science and Mathematics*

**Michael Kamen**, *Electronic Journal of Elementary Science*

**James Shymansky**, *International Journal of Science and Mathematics Education*

**Kenneth Tobin**, *Cultural Studies of Science Education*

The committee will sponsor a second session on how to publish research in our journals, led by our JRST Co-Editors, Randy McGinnis and Angelo Collins. Participants in this session will become familiar with the submission, review, and the communication process of the *Journal of Research in Science Teaching*.

### **E-NARST NEWS**

At the last Board Meeting [April 6, 2006] we agreed to maintain the current *E-NARST NEWS* format, at least for the upcoming year. The chair successfully worked with DMG, publishing a 20 page electronic volume of *E-NARST NEWS* by mid-July 2006. There is a slightly new format, a 2-column one. There are several photos on each page. Thanks to Penny Gilmer for her wonderful photography!

The Publications Advisory Committee welcomes suggestions for changes in the future to any aspect of the *E-NARST NEWS*, including the Masthead, format, and content. Any changes would require budget considerations, while working with DMG. The chair and DMG have agreed on a publication timeline for the next few issues.

## *Publications Advisory Committee to Sponsor Session on Current Issues in Publishing Science Education Research*

*continued from page 17*

### **Updating the NARST Website and Possible Changes.**

During our April 2006 Publications Committee Meeting we discussed the present NARST website. Committee members agreed that the current website is not very useful, is difficult to find, and rarely used. Suggestions included a "Members Only" site to locate NARST members that is updated by the members, updated and current Conference information, Conference program information, NARST Bylaws, Committee membership. Contacts for the committees and NARST officers are important.

### **New Proposed Initiatives**

The committee has discussed several ideas to better connect research to practice. We plan to work towards developing publication avenues for translating NARST research into forms that are readily available to classroom teachers. This is a work in progress. All NARST members are invited to give ideas for this initiative.



*Board Members (L to R), Barbara Crawford, President Elect Penny Gilmer, Lynn Bryan, and Allan Harrison toast to the upcoming 2007 Conference in New Orleans*

# **NARST CONFERENCE**

**New Orleans**

April 15-18



## *Heightening our Awareness of Our Own Research Heritage*

### *Fouad Abd-El-Khalick, Chair, Ad hoc Committee on the History of Science Education*

The “Ad hoc Committee on the History of Science Education” was established by the NARST Executive Board to examine issues relevant to the history of our field. Toward achieving its charge, the Committee has launched three major projects: The NARST Academic Genealogy Project, the NARST Archive Project, and the Science Education Research Anthology Project. Additionally, the Committee has organized and sponsored sessions related to the history of the field at NARST annual meetings. *Committee Members:* Sandra Abell (University of Missouri–Columbia), Glen Aikenhead (University of Saskatchewan), Ronald Anderson (University of Colorado–Boulder), Saouma BouJaoude (American University of Beirut), Angelo Collins (Knowles Science Teaching Foundation), John Rudolph (University of Wisconsin–Madison), Norman Lederman (Illinois Institute of Technology), Steve Oliver (University of Georgia), and William Holliday (University of Maryland)

### *The Genealogy Project (Director: Sandra Abell, University of Missouri–Columbia)*

The project, launched during the 2006 NARST annual meeting, examines the development and trends in science education with a focus on researchers’ academic genealogy. An academic genealogy traces the line of descent of a scholar’s intellectual development using their highest non-honorary PhD or EdD degree as the focal point of lineage. This approach, which is a somewhat new perspective in science education, has been used in various STEM fields. A questionnaire was distributed at the 2006 annual meeting and through the NARST listserv. Responses and information solicited from NARST members and the Internet were used to create lineages of many NARST members. Analyses revealed two major patterns in the data. The first is related to “hotshots”; individuals who have advised a large number of science education doctoral students. The second pattern is related to “hotspots”; university locations and time periods that graduated a large number of doctoral students. Although there are limitations in the genealogies constructed, NARST

members can trace the influence of hotshots and hotspots as they and their progeny impact science education. The initial results of the Genealogy Project will be presented at the 2007 NARST annual meeting in New Orleans. The eventual plan is to build a website—most likely associated with the NARST central website—for gathering continuing input and sharing results from this effort with the science education community.

### *The NARST Archive Project*

NARST is one of the oldest and most prominent international organizations for research in science education. NARST will be 80 years old in a year or so. Yet, the organization does not have a centralized or uninterrupted archival record of its history and activities. To be sure, some efforts have been undertaken in the past to create and maintain such an archive. Most notable among these efforts is the archive started by NARST Emeritus Member Professor Paul Joslin, who served as the NARST Executive Secretary from 1976 to 1980, at Teachers College, Columbia University. The Archive Project aims to collate existing archival materials and create and maintain a digital NARST archive. John Rudolph of the University of Wisconsin–Madison is facilitating initial work on this project.

The Committee’s present efforts are dedicated to locating and collating materials for the archive. We have already taken stock of the materials in the Teachers College NARST archive. Additionally, the Committee has undertaken steps to locate archive-worthy historical documents and materials that are in the possession of NARST membership. The next steps for this project include: (a) Relocating all identified materials into a central location for processing; (b) Developing a set of guidelines for the inclusion of materials in the NARST Archive. Guidelines would serve both to sort through older materials and decide what newer materials would go into the archive; (c) Converting materials of historical significance into digital files for later processing; and (d) Creating a navigable and searchable electronic archive accessible to members through the NARST website.

*continued on page 20*

## *Heightening our Awareness of Our Own Research Heritage*

*continued from page 19*

*The Science Education Research Anthology Project (Director: Fouad Abd-El-Khalick, University of Illinois at Urbana-Champaign)*

The Science Education Research Anthology aims to contribute to the creation of a shared sense of history of research in the field of science education. The Anthology, which is intended for dissemination as an edited volume (or volumes), would reproduce a number of seminal, landmark science education papers that could be organized along several thematic dimensions (e.g., historical, paradigmatic, topical). The selected papers would be reproduced and preceded and/or followed by commentaries from original authors (in case they are still around) that situate the papers in, among other dimensions, the historical, educational, and methodological contexts in which they were produced and build a case for their significance and contribution to the field.

The first two phases of the Anthology Project have been concluded. The first phase aimed to identify—through an iterative process of nomination—an international pool of senior science education researchers who would participate in nominating papers for inclusion in the Anthology. The second phase of the project aimed to elicit nominations for the Anthology from the aforementioned pool. The project will next move to the phase of selecting papers for inclusion in the Anthology.

*Sponsored Sessions at the NARST Annual Meetings*

The first session, titled: “Issues and Trends in Science Education: An Historical Perspective,” was presented at the 2006 NARST Annual meeting. The session, which was organized by Sandra Abell, aimed to help NARST members build an understanding of issues and trends in science education research from a historical perspective and heighten our community’s awareness of our own research heritage. An international panel of science educators, including past presidents and emeritus members of NARST, tackled questions related to the past, present, and future of research in science education. The panel included Sandra Abell, Glen Aikenhead, Jane Kahle, and Reuevn Lazarowitz. With more than a 100 NARST members in attendance, the session was very well received.

The Committee is organizing its second session to be presented at the coming 2007 NARST meeting in New Orleans. The session, which is organized by Norman Lederman, is titled: “Research in Science Education: How Well Does Our Research Build Upon, and is Guided by, Existing Research?” Participants will provide perspectives on developments in theory and underlying assumptions, research methodology and findings, and progress (or lack thereof) in five research domains in science education. Participants include Audrey Champagne, Jane Kahle, Anton Lawson, and Norman Lederman.

2007 session to provide perspectives on developments in theory and underlying assumptions, research methodology and findings, and progress (or lack thereof) in five research domains in science education

## *Working to Refine Our Own Policy Documents*

*Lynn Bryan,  
Chair External Policy and Relations Committee*

The charge of the External Policy and Relations Committee is three-fold: to (1) review and/or be informed about existing educational policies at the state, national, and international levels and provide the NARST membership with access to this information; (2) facilitate the production of position papers based on research that can assist policy makers and the public-at-large in making more informed decisions about science teaching and learning; and (3) foster the development of partnerships and collaborations with appropriate professional organizations and groups in order to influence policy, politics, and public relations in regard to quality science teaching and learning.

One of the recent, major undertakings of the EPRC this year has focused on our own policy documents. Specifically, we have been working to propose refinements to the NARST Bylaws and the NARST Policy and Procedures manual. The primary goal of making such changes is to make a stronger distinction between policy and procedures, making it clearer where the decision-making authority lies for some of these materials, and also making it easier to provide committee members with the portion of the document that directly influences their work. We would like to thank Julie Gess-Newsome, Jim Shymansky, Larry Yore, and John Staver for their initial work on the proposed changes to the Bylaws and P&P manual. In the upcoming months, the committee will continue working on proposed changes to these documents.

Secondly, the EPRC also has been focusing on identifying, cultivating, and promoting collaborative relationships between NARST and organizations related to science, engineering, and education. To this end, in June 2006, the EPRC co-chair, Lynn Bryan, attended the third planning meeting of *Deans Summit III: Preparation of Teachers and Engineers for a Rapidly Changing Technological World* at the University of Texas—Arlington. This is the third year that representatives of NARST have been involved in this effort. One of the central objectives guiding

the meeting activities included developing a working agreement to form LEEP: *Leadership in Engineering and Education Partnerships*. LEEP is proposed to be a coalition of engineering societies, education associations, industry, and informal education organizations. Participating organizations will work together under an agreement in order to provide a community of practice addressing both the academic underpinnings and implementation mechanisms to cultivate and sustain partnerships between teacher education faculty and engineering education faculty in higher education. While the formal agreement document to develop LEEP has yet to be finalized, it is clear that representatives from all the organizations present at the June meeting view NARST as a crucial partner in this coalition.

Finally, during the 2006 annual meeting, the committee discussed several ideas to increase and enhance relationships between NARST and other organizations related to science, engineering, and education. Specifically, we plan to invite an expert on science/science education policy issues to address NARST members as a keynote speaker at a future NARST annual meeting. In addition, we will explore the possibility of creating an annual meeting strand for papers related to policy research.

*Would you like to be involved in this committee?*

If you have comments, ideas, or would like to be involved in this committee's work, feel free to contact the committee co-chair, Lynn Bryan at [labryan@purdue.edu](mailto:labryan@purdue.edu).

Identifying, cultivating, and promoting collaborative relationships between NARST and organizations related to science, engineering, and education

## *Working Towards Forming Nurturing Professional Relationships*

*Allan Harrison, Chair, Membership and Elections Committee*

This year in New Orleans, the Membership and Elections Committee has organized three events for first-time conference attendees, mentors and beginning researchers. On Sunday night we will have one session, the Mentor-Mentee nexus, occurring before the president's reception. On Monday night we will have the Graduate student and Junior Faculty Early Career Discussion. Finally, Tuesday night we will sponsor the New Researcher Orientation

### **NEW RESEARCHER ORIENTATION**

Organized by Brian Fortney (University of Texas at Austin) and Alan Blakely (University of Kansas Medical Centre) (1 hour)

At this session, all first-time NARST conference attendees, as well as any new researchers pursuing careers that involve research in science education, are invited to attend (other interested NARST members are welcome). The goal of this session, in which a distinguished panel of experienced NARST members will discuss how one travels the road from early dissertation work to the myriad of career options, is to provide support via information to new members.

Events for first-time conference attendees, mentors and beginning researchers-- experienced professors to advise graduate students in the pleasures and perils of academic research writing.

### **MENTOR-MENTEE NEXUS**

Organized by Alan Blakely and Brian Fortney (1 hour)

At this session, all members who indicated on their NARST conference registration form that they would like to serve as a mentor or be a mentee are asked to attend. The goal of this session is to serve as a nexus where members may be matched and then consider ways to benefit from a nurturing, professional relationship (particularly at the conference, but extending beyond if desired).

### **What is involved in participation?**

Mentors and mentees meet the first evening of the conference to plan interactions like attending sessions together or to discuss common interests. One of the most important things that mentors can do is to introduce mentees to other friends and colleagues who share similar interests. Many

mentor/mentee relationships last just until the mentee learns the ropes, but some become long term professional associations. That choice is up to the mentors and mentees, based on their shared interests.

### **Who can be a mentor?**

Anyone who is a conference regular and is interested in helping new conference-goers feel included in the organization. It is not necessary to have been to a particular number of meetings or to know 'important' people. It is necessary for you to be willing to spend some time with a newcomer and help make the meeting positive and productive. We always need more mentors! If you are wondering if you can be a mentor, please don't be shy, have a try.

**Who can be a mentee?**

Anyone can be a mentee who is relatively new to the conference and feels that he or she would profit from spending time with a mentor. If you have spent time with a mentor through this program before, you should be considering being a mentor instead of a mentee!

**How do you sign up?**

You can sign up as a mentor or a mentee on the electronic registration form.

**GRADUATE STUDENT FORUM**

Organizer and Presider, Alan Blakely

This session addresses the issues of thesis writing and uses a panel of experienced professors to advise graduate students in the pleasures and perils of academic research writing. This is an opportunity to sample other approaches to your research.

The committee is pleased to offer these sessions for new and old NARST members. We trust that you will enjoy this conference in New Orleans.



Photo by Penny Gilmer

*Volunteer to spend some time as a Mentor at the 2007 New Orleans conference at the Sheraton*



## Global Warming and Science Teaching and Learning

*Janice Koch,  
NARST member*

Recently, the NSTA has been under fire for not agreeing to distribute, free of charge, 50,000 copies of *An Inconvenient Truth*, produced by Laurie David and featuring former Vice President Gore's analysis and presentation of threats to our environment from evidence of global air temperature increase as a result of developed and developing countries' contemporary abuses of energy consumption.

Not distributing the DVDs directly is consistent with NSTA's distribution policies. NSTA established its non-endorsement policy to formalize their position that the association would not send third-party materials to their members without their consent or request. While the NSTA conflict with Ms. David is based on David's allegations that NSTA's budget is dependent on corporate America's contributions and the incorrect assertion that representatives from a major oil company sits on the NSTA Board. I direct you to the NSTA web site for an overview of the NSTA response.

The issue, however, has made its way to the ASTE listserv and as science teacher educators, the discourse has been significant and raises important issues. Many ASTE members, as many of you are, have deep concerns about global sustainability and about helping students understand the science behind global warming. There is, however, a significant dispute about distributing a DVD that promotes a belief system without asking our pre-college science students to explore data, analyze evidence, and synthesize an understanding of the scientific

issues informing atmospheric changes and their potential devastating impact on our planet.

What are the roles of professional associations in distribution of privately produced materials to their members?

The implications of this debate are far reaching for both ASTE and NARST. It begs the question, "How do we engage our future teachers in the consideration of civic issues while not abandoning an understanding of the nature of science?" What pedagogical strategies encourage the participation of future teachers and their students in critical discourse that results in skills in argumentation and perhaps an action plan to promote the understanding of the impacts of reckless energy use for global warming. Distributing the DVD, according to several of ASTE members, without relevant teaching activities and suggestions is not in the best interests of science education. Implications for research include an exploration of learning science through civic engagement.

"How do we engage our future teachers in the consideration of civic issues while not abandoning an understanding of the nature of science?"

What are the roles of professional associations in distribution of privately produced materials to their members? Should there be a vetting process? What should be

the appropriate response for an association which is misrepresented in the popular press and media outlets for following its policies and procedures?

*Janice Koch  
Science Education Professor  
Director of the Hofstra IDEAS Institute  
Hofstra University  
Hempstead NY 11549*



## Seeking New JRST Editorial Board Members

*J. Randy McGinnis and Angelo Collins, Editors of the Journal of Research in Science Teaching (JRST)*

### 1. A Call for JRST Editorial Board Members

Annually, the JRST editorial team needs to replenish with new members approximately one-third of its 40-member editorial board. The appointment is for three years, contingent on performance. NARST policy requires that a member of the JRST editorial board must review each JRST manuscript. All NARST members in good standing who have published in JRST at least once, and who have experience as a JRST reviewer in Manuscript Central, may apply for this scholarly service. Duties include in-depth review of 6 to 8 manuscripts yearly and attendance at the annual JRST Editorial Board Meeting/Dinner at the National Association for Research (NARST) Conference. Applications from International members are especially welcomed.

To apply, please submit (by Monday, February 19, 2007):

- A letter of interest, which includes a list of up to four areas of expertise in science teacher education in which you would be comfortable reviewing manuscripts.
- A two-page curriculum vita (highlight publications in prominent refereed journals in science education and your previous reviewing or editing experience).

Please apply electronically, by emailing us at:

*jrst@umd.edu*. Use as a subject title: Attn: Editorial Board Application ('07).

If you have any questions please contact J. Randy McGinnis

(*jmcginni@umd.edu*)

or Angelo Collins (*Angelo.Collins@kstf.org*), Editors, Journal of Research in Science Teaching.

### 2. Innovations for JRST Volume 44

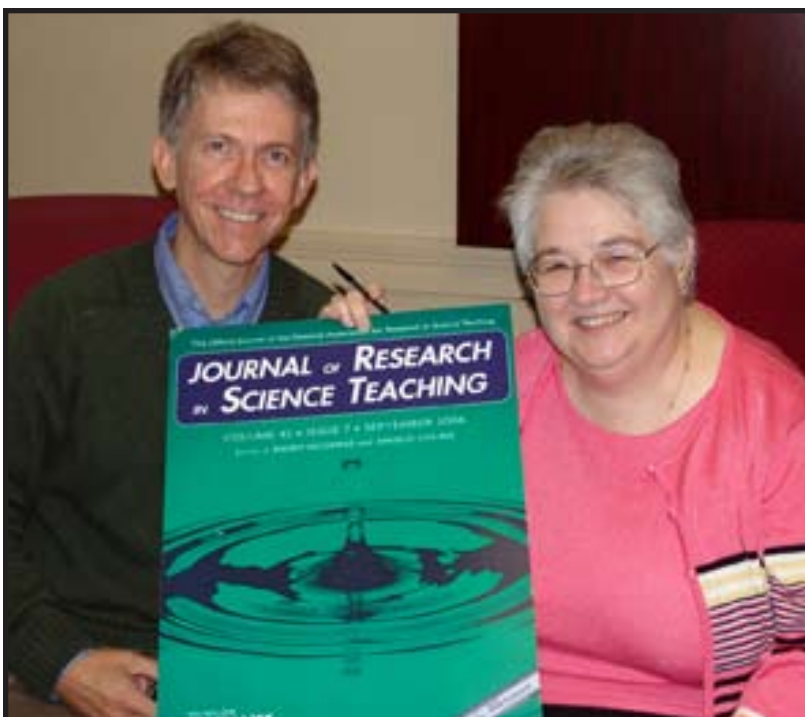
In the past two years, we have introduced multiple new features to the journal, including launching the electronic submission, review, and communication system (Manuscript Central), conceptual grouping of articles

by issue when it makes sense (accompanied occasionally by an editorial), and a dynamic new cover. In the 2007 volume,

we are pleased to announce the continuation of innovation in JRST. New features will include: Key words for each

article (starting with issue 4) and a listing of all our volunteer reviewers who have reviewed at least one manuscript since we

began our editorship on January 1, 2005. Also, in response to our commitment to publish accepted manuscripts in a timely manner, the NARST Executive Board and our publisher John Wiley & Sons, Inc. approved our request for an extra one-time increase of 100 pages for each of the first three issues of volume 44.



*J. Randy McGinnis and Angelo Collins hold up the display board for the new JRST cover*

In the past two years, we have introduced multiple new features to JRST