E-NARST NEWS

National Association for Research in Science Teaching

Organized to improve science teaching through research

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VOLUME 49 (1) **February, 2006**

Message from the President

Jim Shymansky, President of NARST

Your NARST board has been exceptionally busy these past six months and will continue to be so as we move into the 2006 fiscal year. I will report on all of the matters with which we have been dealing and decisions which we have made this past year in a "state of the organization" address that I will deliver at the awards luncheon in San Francisco. In this message however, I will focus specifically on one of those matters. Effective April 1, 2006 we will be contracting a professional "management company" (MC) to carry out the many functions required to operate our organization. As I write this message we are in the final stages of selecting a company from a list of 16 that submitted bids. We plan to have the new MC in place by January to allow for a three-month transition period.

Here are the factors that were considered by the board in deciding to move to an MC. First and foremost was efficiency. For the past several years we have operated with an executive director, an annual meeting coordinator, an electronic services director and an accounts manager located in three different places, in two different countries, in three different time zones. When the plan was implemented several years ago there was no other option--there was no one NARST member or team at a single institution interested in taking on all these responsibilities.

Thus, the decision was made to split up the tasks. So why change? Though all the persons in these positions for the past several years have worked hard and have done an outstanding job, it has often been difficult for them to coordinate their efforts. Facing the need to replace one of the key players in the current structure, everyone on the board felt that having one point of contact for all the critical operations of the organization was the sensible way to proceed given the growth of our membership and increasing complexity of the management tasks.

Here's our NARST President Jim Shymansky hard at work at our Board meeting.

The second factor, cost, is actually part of the first factor, efficiency. When the board examined the MC bids submitted in response to our "request for proposals," we weighed each bid on the quality and cost of services proposed compared to the services and costs of our existing multi-site/multi-person operation. I am pleased to report

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Voting for NARST Executive Board members and President-elect has started. Online voting will only be open until midnight (Pacific Standard Time) February 16th, 2006. All NARST members should have received an e-mail from narstelection@gmail.com with their username and password to use in the voting. There are links to the candidates' statements.

that the three MCs that are now in our finalist pool are more than capable of handling all the necessary tasks and very much within the range of the cost of our current operational structure.

The MC will manage all accounts, membership services, annual meeting coordination, and day-to-day operation of the organization. We will continue to appoint an executive director from our membership to serve an extended term as the liaison between the MC and the NARST board. This will ensure continuity and accountability in operations and facilitate communications between the MC and the board as the board changes membership and leadership from year to year.

I would like to thank the current management team, John Tillotson, Executive Director, David Zandvliet, Annual Meeting Coordinator and Electronic Services Director, and Marilyn Estes, Accounts Manager, for their hard work these past few years. David and Marilyn will be completing their terms in 2006 while John will continue for at least one more year in his current term. I also want to thank everyone on the board for their work in selecting a new MC and their work on several other major issues on which I will report in my awards luncheon address. Finally, I would like to thank Penny Gilmer and her assistant, Lisa Upham, for their fine work on publishing the E-NARST News. Both have done an outstanding job!

To all my fellow NARST members, my best wishes for a happy, healthy and prosperous new year. I hope to see you in San Francisco!

-- Jim Shymansky, President

Message from the President-Elect

Jonathan Osborne, President-Elect

NARST is a membership organization and depends on its members' voluntary efforts to sustain its work. Every year, some people retire from the various committees on which they have sat and we need to find new people. This year, as usual, we will need to replace people on all committees.

- Awards Committee (with its following subcommittees):
  - NARST Outstanding Paper Award
  - Outstanding Doctoral Research Award
  - Early Career Research Award
  - Distinguished Contributions Through Research Award
  - JRST Award
- Equity and Ethics Committee
- External Relations Committee
- International Committee
- Membership and Elections Committee
- Program Committee
- Publications Advisory Committee
- Research Committee

In addition, we will be looking for people to take on the role of Assistant Strand Coordinators who then will become the Strand Coordinators in the following year.

Serving on these committees is a valuable experience providing you with a better knowledge of the academic community that constitutes NARST and the range of the work conducted by its members. For instance, working on the JRST award forces you to read a body of work with which you may not be familiar and develops your understanding of what makes a good academic paper. Such service is something which is a notable addition to your vitae. You can read about the charge of each committee in the NARST Bylaws found at this URL: http://www.educ.sfu.ca/narstsite/info/bylaws.html

So if you would like to know a little bit more about NARST and broaden your understanding of this organization, please write to me, the President-Elect (jonatchan.osborne@kcl.ac.uk), indicating which committee you are interested in serving and explaining why your experience/qualifications would make you a suitable person to appoint. There are positions available for people at all stages of their careers.

We hope that many of you will be interested in serving NARST.

-- Jonathan Osborne, President-Elect

Two Board members, Julie Gess-Newsome and Okhee Lee, discuss some issues together at the Board meeting.

NARST 2006 International Conference in San Francisco, CA

April 3-6, 2006

A Message

Jonathan Osborne, President-Elect

The annual NARST conference in 2006 will be at the Hyatt Regency on the Embarcadero in San Francisco from April 3-6. AERA will follow immediately after our meeting, beginning on Friday, April 7. This year the number of submissions for the NARST conference was up by 50%. For NARST this is a very healthy sign suggesting that we are an expanding and academically vital organization. The bad news about this is that the current format of the conference meant that there was an increased rejection rate. In response to complaints about two simultaneous sessions in one strand, some years ago the decision was taken to limit the conference to only one strand session at a time. We have done our best to accommodate extra sessions by adding round tables and breaking this rule for one or two strands, but I know that there are still a lot of aggrieved people out there. The complaints have come from both national and international members, and I think it is a mark of the health and equity of the system that both well-known individuals in the community and lesser-known individuals have been rejected. However, if you think that what matters is providing a forum for as large a number of people to present their work which meets minimum standards of quality, then you need to make that known to the board members.

As for the conference itself, we have an exciting program – a draft of which is now on the web. The venue is the Hyatt Embarcadero, which is right in the heart of San Francisco – practically a stone's throw from the waterfront and near to the main ferry building itself (if you stay onto the Saturday, there is a lively farmer's market there every Saturday morning). Whilst we recognize that the accommodation costs are on the high side, they are inexpensive for the location of the hotel, and we have negotiated with the hotel so that all the people staying there on the conference rate will have free wireless Internet access.

Here is a bit of Fisherman's Wharf with Alcatraz Island in the background. Alcatraz used to be a federal maximum security prison from 1934 until 1963, at which point it closed only to reopen as a popular tourist stop. See http://www.alcatraz.us/

The theme of the conference this year to mark our location is 'Learning science in formal and informal contexts.' To address that theme we have two major plenary speakers – John Bransford – the director of the LIFE project from the University of Washington and author of the book How People Learn and Dylan Wiliam, Director of the Learning and Teaching Research Center at the Educational Testing Service.

This year there will be no tandem sessions – people found those difficult in which to work, but we will be retaining the interactive poster sessions and have added round tables to accommodate as many people as we can. The pre-conference workshops will be on Monday morning, and the conference starts officially at noon on Monday, finishing with the awards luncheon on Thursday. There will be a members' reception on Monday evening and a reception at the Exploratorium on Wednesday night. This will be open to all members, but the Exploratorium is about two miles from the hotel so that if you want to be transported there by NARST, you must book a coach seat on your registration form. Otherwise you will have to make your own way there and back by public transport or taxi. Tuesday evening will be the night for the annual business meeting, the strand meetings and the

San Francisco to explore on your own!

Check the NARST web site (Local Arrangements & Conference Program) for updates and specifics about program activities such as the Evening at the Exploratorium. See you in San Francisco (Sounds like a nice title for song.)!

-- Cheers, Shari and Larry

our Suggestions

(*Some of these options best involve an overnight stay)

- Sonoma and Napa Valley Wine Country
- Marin County
- Sausalito / Muir Woods
- Silicon Valley
- Golden Gate Bridge and Park & North of the Bridge
- Carmel / Monterey / Steinbeck Country
- Hearst Castle*
- Sacramento*
- Yosemite Park*

Universities

- University of California, Berkeley
- University of California, San Francisco
- Stanford University
- San Francisco State University

Chocolate covered strawberries are available at Ghirardelli Square, right at Fisherman's Wharf on the waterfront on the north side of the city.

The following Travel Tips are from the Chamber of Commerce website:

Whether you want to climb the hills of the San Francisco Bay Area or explore the more urban delights of the "Cities by the Bay," you will never run out of things to see and do. Within every neighbourhood, from San Jose in the "South Bay," Oakland in the "East Bay," San Francisco or Mill Valley, a diversity of tastes and interests are thriving! You will see it in the cuisine, the boutiques, the theatre and the arts, world-class museums and boundless recreational opportunities. Visit the California Welcome Center at PIER 39 to help plan your visit to San Francisco and the Bay Area. The Welcome Center is located in the heart of the world-famous Fisherman's Wharf area and offers a multi-lingual staff, ATM, Internet access to check e-mail, and airport shuttles. Helpful staff will also assist you with information on attractions, dining, shopping and more. Sunshine: 70 percent sunny spring through fall; thick coastal fog typically burns off by afternoon.

City Activities

- Golf, Baseball, other sports (Giant's schedule not yet posted)
- North Beach / Little Italy
- Exploratorium (part of conference program)
- Museums / Theatres / Aquarium / Gardens / Zoo
- Haight-Ashbury / Mission / Castro Districts
- Alcatraz Island
- Chinatown / Nob Hill
- Union Square / Downtown
- The Presidio
- Cruising the Bay or the Pacific Ocean
- Victorian homes
- Lombard Street
- Japantown / Nihonmachi
- Cable Cars
- Fisherman's Wharf / Ghirardelli Square
- Embarcadero

AWARDS COMMITTEE

Fouad Abd-El-Khalick, Chairperson

2005 NARST Award Recipients

ARS Outstanding aper Award

Title: "Learning genetics with multiple representations: Cross-case analysis of student's conceptual status."

Chi-Yan Tsui,

David F. Treagust,

Outstanding Dissertation Award

Title: "Conceptions of scale and scaling: The expert-novice continuum."

Dr. Thomas Tretter,

Advisor: Dr. M. Gail Jones

JRS Award for Volume 41

Citation: Enhancing the quality of argumentation in school science. , Volume 41(10), 994-1020.

Jonathan Osborne,

Sibel Erduran,

Shirley Simon,

Early Career Research Award

Dr. Randy L. Bell,

Four Board members are relaxing at a coffee break at the Board meeting: President-elect Jonathan Osborne, Past President John Staver, Board member Fouad Abd-El-Khalick, and Co-editor of Journal of Research in Science Teaching, J. Randy McGinnis.

Inscription: "The Early Career Research Award recognizes Dr. Randy Bell for his outstanding professional accomplishments. Dr. Bell's record of research and publications make him well known and respected as an emerging scholar in science education. Colleagues have described his research as very significant, especially in the domain of teacher beliefs, the nature of science, and instructional technologies. His scholarly contributions are based in theoretical models supported by data rather than personal convictions and popular ideologies. As a recipient of the National Association for Research in Science Teaching Early Career Research Award, he joins his predecessors in setting high standards for future awardees."

Distinguished Contributions through Research Award

Dr. John J. Clement,

Inscription: "Professor John J. Clement is an outstanding researcher and educator who has contributed substantially to science education for over twenty-five years. He has conducted a sustained program of careful, scientifically prudent, educationally sensitive, longitudinal studies. Through a reflection on this experience, Professor Clement has shown leadership in the field of research methodology. Early work on student misconceptions in Newtonian mechanics and other fields was sustained to produce cumulative insights into the productivity of these

naïve ideas in learning. These insights were also used to generate innovative ways of building on such ideas. The idea of bridging analogies was a unique and highly valuable contribution to the strategies available to teachers with which to promote conceptual change. The recognition of the role of imaginistic simulation in the creativity of expert scientists has led to productive approaches to the education of novice scientists. In addition to these valuable theoretical insights, Professor Clement has developed materials and strategies by which these ideas can be incorporated into educational instruction. His work links the communities of the natural sciences, cognitive science, and science education, such that he has received recognition in all three of them. His former doctoral students hold positions at major research universities. Professor Clement has been funded steadily by the National Science Foundation since the mid 1970s. His papers and books are highly cited and noteworthy for the lessons that they draw from negative outcomes of research and development, in addition to the many drawn from positive outcomes. The significant accomplishments of Professor John Clement make him a worthy recipient of this prestigious award for achievement in science education research and its applications."

From the Equity and Ethics Committee ...

Angela Calabrese Barton and Okhee ee, Co-Chairs

The charge of the Equity and Ethics committee is to provide "leadership and guidance to the NARST on issues of equity, including but not limited to gender, ethnicity, socioeconomic status, disabling conditions, sexual orientations, language and religion." But the question inevitably comes up: Equity in terms of what? This has been a question that we have taken up seriously in the past year and will continue to reflect and act upon in the years to come. For now, as a committee, we are committed to engaging in equity issues along at least two fronts.

First, we are committed to ensuring that NARST is fairly and equitably represented by members from underrepresented backgrounds. As we report in an editorial to appear in JRST in 2006 this means that we are invested in serious reflection and dialog on three questions:

1. How diverse is the membership and leadership?
2. How are the research perspectives of members from underrepresented groups given voice?
3. How do we welcome, mentor, and sustain membership among underrepresented groups?

To this end, we are also committed to the continuation of our Equity and Ethics NARST activities: scholarships for early career members from underrepresented groups, pre-conference workshop focused on equity issues, special NARST session focused on issues of equity and ethics, and the annual Equity Dinner.

Second, we are committed to ensuring that the needs and voices of those we serve from underrepresented groups are an integral part of the research agenda and are made visible within the NARST community. This means working closely with the Cultural, Social and Gender Issues strand leaders to ensure that multiple theoretical and methodological perspectives as well as research questions focused on equity issues are included in the NARST program.

We look forward to talking with you at NARST to gather the questions and concerns that you have regarding issues of equity and ethics. In the mean time, please feel free to email any questions or concerns to any of us: Okhee Lee (olee@miami.edu) and Angela Calabresse Barton (acb33@columbia.edu)

Board members, Angela Calabrese Barton, Allan Harrison, Barbara Crawford and Pamela Fraser-Abder are at work during a small group session at the Fall 2005 Board meeting in San Francisco.

The members of the committee are:

Okhee Lee, Co-Chair (06),
Angela Calabrese Barton, Co-Chair (08),
Julio Lopez-Ferrao (06),
Moreen Carvan (06),
Shirley Key (07),
Teresa Arambula-Greenfield (07),
Eileen Parsons (07),
Christopher Anderson (08),
Scott Dantley (08),
Joan Lindgren (08).

INTERNATIONAL COMMITTEE REPORT

Saouma BouJaoude, Chair

The International Committee's activities that took place between April and September 2005 included planning a NARST Symposium at the European Science Education Research Association (ESERA) 2005 Conference and initiating a mentoring program for NARST international members. Activities planned to take place during the NARST 2006 annual conference include an international symposium and an ESERA symposium. Other activities that are taking place or being planned include the NARST International Committee travel scholarships and contacts with international science education research associations. Details of these activities are presented below.

Activities between April and September 2005

entoring program

The International Committee initiated a mentoring program for NARST international members. The purpose of the mentoring program is to help non-native English speaking members of NARST improve the quality of English in their research manuscripts. A total of 18 NARST members volunteered to work in the program and 12 requested help. The 12 who requested help were matched and put in contact with volunteers with similar areas of expertise.

Board member, Souma BouJaoude, is hard at work at the Board meeting.

ARS session at ESERA 2005

A NARST sponsored symposium was presented at the biennial ESERA 2005 conference which was held in Barcelona, Spain. The symposium organizer was L. Yore, the discussant was Jonathan Osborne, while the presider was Saouma BouJaoude. Presenters in the symposium included Larry Yore and T. Holden, B. Hand and N. Meier, N. Lederman and J. Lederman, and S. BouJaoude and F. Abd-El-Khalick.

Activities during the ARS 2006 Annual Conference

International Symposium:

The title of the International Symposium will be, "Research schools for graduate students: European and South African models of research enculturation." Contributors to the Symposium will include Sibel Erduran, University of Bristol; Cynthia Fakudze, University of Cape Town; Peter Hewson, University of Wisconsin, Madison; and Doris Jorde, University of Oslo. Discussant will be Richard Duschl, Rutgers University.

ESERA symposium

An ESERA symposium will be presented at the NARST 2006 annual conference. The title of the symposium will be, "No Country Left Behind: 'European' and 'American' perspectives

on research into teaching and learning." Contributors to the symposium will include Reinders Duit, IPN, Germany; Doris Jorde, Oslo University, Norway; Saouma BouJaoude, American University of Beirut; and Justin Dillon, King's College London.

ARS ravel Scholarships

As last year, the NARST International Committee is offering scholarships to support advanced doctoral students and junior scholars outside the U.S. to attend the 2006 NARST conference. Detailed information and the application form for the scholarships are posted on the NARST website as follows: http://www.educ.sfu.ca/narstsite/conference/travel-grants.pdf and http://www.educ.sfu.ca/narstsite/conference/Travel-Grants-Application.doc

Collaboration with International Science Education Research Organizations.

The NARST International Committee will endeavor to strengthen the relationships with international science education research organizations. This year we had a successful and well attended symposium at the ESERA 2005 Conference that was held in Barcelona, Spain. However, since ESERA is a biennial conference, the committee is planning to initiate contacts with other international science education research associations such as the Australasian Science Education Research Association (ASERA).

RESEARCH COMMITTEE

amela Fraser-Abder, Chairperson

In response to the concerns voiced by several members about the new changes in the rules and regulations governing the RERBs (research ethics review boards) process and the current difficulties with getting through the review process at their institution the research committee will be offering two sessions at the upcoming meeting. The first session will focus on **International perspectives on the RERBs process**, and the second will deal with **Getting through the RERBs process: Issues and problems.** We look forward to your participation in these sessions.

The research committee has been asked to focus our work for the remaining part of this year on an examination of the strands for our annual conference and also to look at the criteria for evaluating program proposals. If any member wishes to have their views included in our discussion, please send your comments to pamela.abder@nyu.edu, speak to any member of the research committee, or attend our Research Committee meeting in San Francisco. We welcome all input by the membership as we take a serious look at the two critical areas of our work. It is anticipated that our report with recommendations for changes (or not) to the Executive Board will impact the process to be used in future annual meetings.

Board member, Pamela Fraser-Abder, enjoys a few minutes outside of the Board meeting in the sunny but cool, San Francisco air.

Report from the NARST Publications Advisory Committee

Co-Chairs: Penny J. Gilmer and Barbara Crawford

As the NARST Publications Advisory Committee begins work in 2006, the committee is targeting the goal of fostering ways to better connect research to practice. The committee members are concerned about the wide gulf between theory and practice, and how to make science education research more accessible to science teachers. For example, about 25 years ago NARST wrote a column in the journal, The Biology Teacher, that summarized articles from research journals and what they meant for teaching. Our committee is beginning to generate ideas. Some of our initial thoughts include:

- linking with the NSTA electronic newsletter,
- entering into a partnership with NSTA to share relevant research,
- working towards connecting graduate programs nationally and internationally,
- increasing the audience for our conference CD,
- enhancing our NARST Web site so it is more available for researchers and teachers,
- sponsoring a session at NARST and NSTA with teachers, featuring relevant research articles, and
- increasing publicity of NARST.

We would like to hear your ideas about how to better increase communication of our research to practitioners. We invite you to send your ideas to the Co-Chairs, Penny J. Gilmer (gilmer@chem.fsu.edu) and Barbara Crawford, and to our committee members, Bill McComas (mccomas@usc.edu), Gerald Krockover (hawk1@purdue.edu), and Marcelle Siegel (msiegel@sep.ucsf.edu).

If you are interested in serving on the NARST Publications Advisory Committee, please indicate your interest by sending an email to Co-Chair Barbara Crawford (bac45@cornell.edu) or to President-elect, Jonathan Osborne (jonathan.osborne@kcl.ac.uk).

This is Board member Penny J. Gilmer's last issue of E-NARST News that she edits in its new electronic format. The new management team will take over the production of E-NARST News in the future.

The NARST Publications Advisory Committee is pleased to report that the new JRST co-editors, J. Randy McGinnis and Angelo Collins, have completed the selection of the new Editorial Board members (available at http://www2.educ.sfu.ca/narstsite/publications/jrst.html) and the co-editors are proceeding on time with other matters of transition.