

NARST NEWS

NATIONAL ASSOCIATION FOR RESEARCH IN SCIENCE TEACHING

Thaddeus W. Fowler, Editor, University of Cincinnati

Vol. 32 September 1990

1991 Annual Meeting

The 1991 Annual NARST Meeting will be held at the Abbey on Lake Geneva in Fontana, Wisconsin. The meeting follows the AERA meeting in Chicago and will begin on Sunday, April 7 with two afternoon workshops, an evening general session, and a reception. The meeting will end about noon on Wednesday, April 10th. Conference registration materials including hotel registration forms will be mailed to all NARST News recipients about November 15th. For planning purposes, room rates will be \$69.00 plus 10% sales tax per night for a single or double room. Ground transportation from downtown Chicago, the O'Hare Airport in Chicago, or the General Mitchell International Airport at Milwaukee will cost approximately \$20.00 one way.

The 1991 meeting promises to be an excellent one. The facilities at The Abbey are outstanding, and the resort atmosphere will enable extended interactions among members of NARST. It will be a great opportunity to renew old friendships and to establish new ones. We look forward to seeing you at The Abbey.

NOTE: Due to the delay in publishing the September NARST News, the deadline for submitting proposals for the annual meeting has been extended to October 15, 1990.

Second Call for Proposals 1991 NARST Annual Meeting

This is a call to NARST members and others to submit proposals for the program for the 1991 NARST Annual Meeting. The 1991 annual meeting will be held at The Abbey on Lake Geneva in Fontana, WI outside of Chicago, IL on April 7 through 10, 1991. All *presenters* must *register* for the NARST meeting.

The Program Committee encourages the submission of proposals that describe any of a variety of types of research including, but not limited to: case study, experimental, descriptive survey, documentary analysis, ex post facto, evaluation, historical, naturalistic, and philosophical.

PROPOSAL CATEGORIES, PREPARATION AND REVIEW

Proposals should fit into one of the seven categories of concurrent sessions presented at NARST annual meetings. Criteria and description of each category follow. Except in the case of poster sessions and seminars/workshops, it is anticipated that the research on which the session is based *will have been completed prior to proposal submission*.

1. **Contributed Papers:** This format accommodates three or four 15-minute reports on research papers by individual researchers or groups of researchers. Contributed papers are grouped by the Program Committee and discussants usually are assigned to such sessions. Presenters must provide discussants with a copy of the research paper before the annual meeting and are encouraged to distribute copies of the paper at the session. A *Contributed Paper proposal* should include: 1) an abstract, and 2) a three to six page, double spaced, synopsis (objectives or purpose of the study, significance, design and procedures, findings or results, and conclusions) with bibliography (not counted into the six pages). The materials should be stapled together in the upper left corner.
2. **Paper Sets:** This category accommodates several related research papers or a single paper, reporting on several studies which originate from a common base of research, presented in a single concurrent session. The format also allows for common elements of design or approach to be presented once

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for diverse views, I would like to invite others to contribute to this column and solicit possible editorials (about 300 words) which can be forwarded to me.

In addition, to external opportunities, I have some goals for internal change. NARST is governed by a Board that sets policy and interprets the By-laws. Pat Blosser has accepted the important assignment of codifying Board actions so that we have a cohesive set of policies. Her work will provide the foundation for a more efficient organization that can provide leadership because of its ability to act quickly and efficiently. In addition, John Staver, our newly appointed Executive Secretary (July, 1991), will work with Glenn Markle throughout the year to ensure a smooth transition.

Each year, NARST's president sets goals for the organization and for her/his term. Briefly my goals focus on internal and external change. Internally, I hope to actively involve more members and to increase the efficiency with which NARST acts. Externally, I hope that NARST will be identified as the source of information concerning the improvement of practice. It is untenable to us and to the scientific community that education reform is not based on research, yet we have spoken with individual, and often contradictory, voices. My agenda, therefore, as president is to enhance NARST's growth, diversify its voice, and increase its efficiency. I look forward to working with you in the upcoming year.

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rather than repetitiously. A discussant may be assigned to the session if one is not identified in the proposal. Presenters must provide the discussant with a copy of the research papers before the annual meeting, and are encouraged to distribute copies of the papers at the session. A *Paper Set Proposal* should include: 1) an abstract, and 2) a three to six page, double spaced, synopsis (objectives or purpose of the study, significance, design and procedures, findings or results, and conclusions) with bibliography (not counted into the six pages) for each paper proposed for presentation. The materials should be stapled together as a unit in the upper left corner.

3. **Poster Sessions:** Poster sessions are designed to enable researchers to share information on research that may be in progress. Poster sessions combine the graphic display of materials with an opportunity for individualized, informal discussions of the research. Authors are encouraged to bring copies of a paper for distribution to interested participants. A *Poster Session Proposal* should include: 1) an abstract, and 2) a three to six page, double spaced, synopsis of the research to date (e.g., objective or purpose of the study, significance, design and procedures, findings or results, and conclusions) with bibliography (not counted into the six pages). The materials should be stapled together in the upper left corner.

4. **Panels:** Panels are constituted to provide a mechanism for debating or discussing serious issues in science education. Each panel has a moderator, who may or may not have organized the panel, but who is expected to regulate the flow of discussion or debate. Panel members must provide the moderator with a copy of the paper in which their views on the issue are presented in a scholarly manner and are encouraged to distribute copies of their papers at the session. A *Panel Proposal* should include: 1) an abstract, and 2) a double spaced, Introduction which describes the issue focus of the panel, the research interests of panel members, and their varied backgrounds, *without naming the individuals* (maximum of two pages), and 3) a three to six page, double spaced, synopsis with bibliography (not counted into the six pages) of each paper proposed for presentation in the panel. These materials should be stapled together as a unit in the upper left corner.
5. **Symposia:** Symposia should promote discussion of current or needed research. Following a brief presentation by each member of the symposium, interaction among presenters and the audience is expected. A *symposium proposal* should include: 1) an abstract, and 2) a double spaced, Introduction which describes the research focus of the symposium, the research interests and professional backgrounds of symposium members *without naming the individuals* (maximum of two pages), and 3) a three to six page, double spaced, synopsis with bibliography (not counted into the six pages) of each paper proposed for presentation by a symposium member. This should be stapled together as a unit in the upper left corner.
6. **Round Table Discussions:** Round Table Discussions are used to provide a thorough analysis of one or more papers by a group of researchers. Presenters have an hour in which various aspects of the study are examined by others, the round table panel, in a discussion format. The researcher must provide round table panel members with a copy of the paper at least *two months* prior to the annual meeting. In addition, they are expected to bring materials such as protocols, instruments, computer printouts, experimental curriculum materials, and logs to aid in the discussion. A *Round Table Proposal* should include: 1) an abstract, 2) a three to six page, double spaced synopsis (objectives or purpose of the study, significance, design and procedures, findings or results, and conclusions) with bibliography (not counted into the six pages) of the research paper to be discussed, and 3) a description of each round table member, including their varied backgrounds, and respective research expertise, *without naming the individuals* (maximum of two pages). These materials should be stapled together as a unit in the upper left corner.

All proposals will be reviewed anonymously by the

members of the Program Committee. The following criteria will be applied during the proposal reviews.

Significance of the program and conclusion for the advancement of research in science education as evidenced by the link to or departure from previously published research theories, methods, or conclusions.

Clarity of expression.

Appropriateness of the procedures and conclusions, given the stated purpose and results.

Adherence to the proposal preparation criteria presented herein, *including the deadline*.

An individual may present in only one contributed paper or paper session at the Annual Meeting but may be listed as a co-author on other papers and may participate in a symposium, round table, seminar/workshop as well as serve as a presider or a discussant. Presenters are strongly encouraged to stimulate discussion around their presentations. Overhead projectors and screens will be provided. Participants needing other equipment are expected to provide that equipment. All presenters *must register* at the NARST meeting.

PROPOSAL SUBMISSION

Persons wishing to submit proposals need to send:

1. Two (2) copies of the completed cover page (provided at the back of the newsletter).
2. Six (6) copies of the proposal *as described under the respective concurrent session type* above. Please omit the name(s) and identifying information about the proposer and other session participants.
3. Two (2) *additional copies* of an abstract of more than 500 words for *concurrent sessions* and all *symposia*. The abstracts of accepted sessions and symposia will be published in the collection of NARST abstracts, so form and accuracy are important. Please omit author name(s) and other identifying information.
4. Two (2) self-addressed, stamped, envelopes which will be used to acknowledge receipt of the proposal and the Program Committee's final decision.
5. Two (2) 3x5 inch typed cards containing name, address, and telephone (Fax and Bitnet, if possible) numbers of the individual proposing the concurrent session as well as the title of the session.

Send this material to: Dr. Russell Yeany, Chair; NARST Program Committee, School of Teacher Education, 320 A Aderhold Hall, University of Georgia, Athens, GA 30602.

PLEASE NOTE DEADLINE CHANGE!

DEADLINE: MATERIALS MUST BE POSTMARKED NO LATER THAN OCTOBER 15, 1990.

Networking Groups

For the past several years the annual NARST meeting has featured informal meetings for groups of researchers with interest in specific areas of study. Some of these networking groups have identified conveners and several members who maintain communication with one another. Others served their purpose and have disbanded. During the 1991 annual meeting, the networking groups are scheduled to meet on Monday evening, April 8, at 7:30 p.m. If you would like to initiate a new networking group and have someone in mind who could serve as convener for the group, please contact Russell Yeany, Program Chairperson, at the University of Georgia (404) 542-4354. He will make arrangements to advertise the new group and assure that a meeting space is available for them. Also, if you are part of an existing group and want to assure that space is available for your group meeting, please call Russell.

Twenty-First Annual Symposium of the Jean Piaget Society

The Twenty-First Annual Symposium of The Jean Piaget society will be held in Philadelphia on May 30-June 1, 1991. The theme of the Plenary Speakers will be "The Nature of Ontogenesis of Meaning." Plenary speakers include George Lakoff, Mark Johnson, John McNamara, and Ray Jackendoff. Research and conceptual papers, symposia, workshops, and discussions pertaining to Piagetian theory and application, or knowledge and its development, are being solicited. Program proposals do not have to be relevant to the specific theme. Deadline for submission is October 19, 1990. For further information contact William M. Gray, Center for Applied Cognitive Science, The University of Toledo, OH 43606-3390; (419) 537-2481; BITNET: FAC0002@UOFT01.

Fall Meeting of the Executive Board

The Fall meeting of the NARST Executive Board will be held November 3rd and 4th at the Holiday Inn - Tampa Busch Gardens, 2701 E. Fowler Avenue in Tampa, Florida. The Board meeting is scheduled from noon till 5:00 p.m. on Saturday and 8:00 a.m. to noon on Sunday. Any Board member who is unable to attend should contact Glenn Markle at (513) 556-3582 as soon as possible.

Committee chairpersons and others responsible for submitting reports to the Board should send their reports to Dr. Jane Kahle no later than October 15, 1990. Her address is: McGuffey Hall, Miami University, Oxford, OH 45056

NARST Award for Distinguished Contributions to Science Education Research

The National Association for Research in Science Teaching seeks to improve Science Education through research. To this end the Association desires to recognize individuals who have made significant contributions to Science Education through research. Contributions may be of several types, including but not limited to empirical, philosophical or historical research, evaluative studies, policy-related research and studies reflecting new techniques to be applied in research. To be considered over a period of at least 15 years and should be at the pinnacle of his or her career.

The award will be made to an individual who has over a period of 15 or more years: 1) made a continuing contribution to Science Education through research; 2) provided notable leadership in Science Education through research; and 3) had a substantial impact on Science Education through research.

This award is intended to be the highest recognition NARST can bestow for contributions to Science Education through research. The award will be bestowed only when a superior candidate has been identified by the awards committee.

To apply, a nominator or candidate should submit 10 copies of the following:

1. a cover letter, not to exceed 5 pages in length, describing the nature of the contributions of the individual, including specific documentation as to why these contributions are considered outstanding and substantive;
2. up to five letters of support, each not to exceed two pages in length, which provide evidence of extraordinary contributions of the individual; and
3. a curriculum vita including a complete list of publications and accomplishments.

Dr. Donald W. McCurdy, Chairperson, NARST Awards Committee

Department of Curriculum and Instruction
Room 211 Henzlik Hall
University of Nebraska-Lincoln
Lincoln, NE 68588-0355

Deadline, January 15, 1991

Sixth Annual AAAS Forum for School Science: Assessment in the Service of Science

Assessment in the service of instruction will be the topic of the 1990 AAAS Forum for School Science to be held on November 9-10 at the Hyatt Regency Crystal City, Arlington, Virginia.

Forum'90 will offer an overview of assessment issues at the local, state, and national levels. Participants will learn about alternative forms of testing such as portfolios and performance/authentic and group assessment. State assessments projects in Connecticut, Michigan, California, New York, Vermont, and Texas will be discussed. A New feature this year will be a poster session featuring innovative assessments currently used in elementary, middle, and high school classrooms throughout the U.S.

Registration for AAAS Forum '90 is: Regular \$195, Nonprofit \$140, AAAS Members and K-12 Teachers \$125, and Students \$70. Registration includes *This Year in School Science 1990*, the companion volume to the Forum conference.

For more information about the AAAS Forum for School Science, write to: Betty Calinger, Forum for School Science, AAAS, 1333 H Street, NW, Washington DC 20005 or call (202) 326-6629.

1991 Dues

NARST membership dues are for the calendar year, January 1 to December 31. Notices for 1991 dues will be mailed to current and past members about November 1, 1990. When you receive the dues notice, please check the address, name of your institution, bitnet number, and phone number to assure that they are correct. Corrections can be noted directly on the dues form. In order to prevent an interruption in your JRST subscription, dues must be paid no later than January 10, 1991. The NARST file of members and past members will be updated this year. The names of individuals who have not paid membership dues within the past year will be purged in May, 1991. To assure continued communications with other science education researchers through NARST, please renew your membership as early as possible.

The December NARST News will contain an application form for 1991 membership. Please pass copies of this form on to graduate students and other potential new members.

CALL FOR PAPERS!

Special issue of the *Journal of Research on Science Teaching* on

“Students’ Models and Epistemologies of Science”

Editors: Marcia C. Linn, Nancy Songer, and Eileen Lewis

PROPOSED FOCUS

Consistent with a growing body of research, we propose to focus a special issue of the *Journal of Research on Science Teaching* on “Students’ Models and Epistemologies of Science.”

Papers are solicited investigating how students construct views of science and of the scientific enterprise. Each paper should emphasize how students’ views of the scientific enterprise develop or how students’ views of science interact with science learning. Collaborations between philosophers of science, science discipline specialists, and cognitively oriented investigators are encouraged. In addition, studies involving empirical investigations conducted by teams of researchers in real classroom settings are sought.

POSSIBLE TOPICS

- The epistemologies of science held by students and how those contribute to learning in the science classroom.
- The development of belief systems about science and how they influence performance.
- How students’ beliefs about the scientific enterprise influence their scientific reasoning.
- Reviews of literature relevant to beliefs about the nature of science.
- Social *construction* of beliefs about the scientific enterprise.
- How students and scientists view the scientific enterprise.

TIMELINE

- Papers due
January 1, 1991

- Reviews back to authors
May 1, 1991

- Revisions due, if requested
July 1, 1991

This special issue will appear in 1992

CALL FOR PAPERS!

Special issue of the *Journal of Research on Science Teaching* on

"The Research Issues of Science Curriculum Reform"

Editors: James A. Shymansky, William C. Kyle, Jr., and Deborah Muscella

PROPOSED FOCUS

We are now in the midst of major curriculum reform initiatives with efforts such as AAAS' "Project 2061", NSTA's "Scope, Sequence and Coordination" project and several joint NSF/publisher development projects. It is the purpose of this special issue to provide a forum for examining critical learning, teaching, and policy concerns related to science curriculum reform and development. Of particular interest are critical examinations of policies that promote teacher empowerment, issues surrounding alternative means of assessment, and factors that affect curriculum reform.

Current initiatives in reforming science curricula can be informed by research about how students construct their knowledge about science, effective ways to prepare teachers to use new pedagogy, and the influence of policy on curriculum reform at the classroom level. Reports of empirical research, case studies, position papers, reviews and other forms of scholarly work related to science curriculum reform are encouraged. To stimulate papers for the issue contributing authors may want to send for a copy of the report of the NSF sponsored meeting, "Setting A Research Agenda Related to Science Curriculum Reform" held in Atlanta, April 8, prior to the Annual Meeting of the National Association for Research in Science Teaching.

PROCEDURE

Persons wishing to receive a copy of the "Atlanta report" should write to J.A. Shymansky, 757 VAN, University of Iowa, Iowa City, IA 52242. Papers submitted for the special issue should be sent to the same address.

TIMELINE

• Papers due
November 1, 1990

• Reviews returned
February 1, 1991

• Revisions due
April 1, 1991

Special issue will appear in Fall, 1991

1990 NARST Papers Wanted

NARST members who presented a paper at the 1990 annual meeting, held this past April in Atlanta, are invited to submit a copy of their paper to the ERIC Clearinghouse for Science Mathematics, and Environmental Education for inclusion in the ERIC database and for use by the author(s) of the 1990 review of research.

Documents used for the annual review of research consist of published materials in the form of journal articles, research reports, and papers presented at national and regional meetings. Papers fit into the category of fugitive literature in that they have a short lifetime and exist in limited supply. If papers presented at the MARST annual meeting are not retrievable, they do not form part of the research base for the review. Submitting a paper to ERIC does not preclude its eventual publication as a journal article.

Please send two copies of your 1990 NARST paper, and the copyright release form found in your book of

abstracts, to:

Acquisitions Secretary
ERIC Clearinghouse for Science, Mathematics,
and Environmental Education
1200 Chambers Road, Rm. 310
Columbus, Ohio 43212-1792

If you cannot find the release form, one will be sent to you upon receipt of your papers.

If you have additional papers that you would like to have considered for possible addition to the ERIC database, please send these, also.

COVER SHEET FOR NARST PROPOSAL
1991 ANNUAL NARST MEETING, THE ABBEY, FONTANE, WI

(Please type the requested information)

1. Title _____

2. First author presenting paper

Name _____ Phone () _____

Institution _____

Address _____

_____ Zip _____

3. Name and Institutional Address of Co-Author(s) and, if appropriate, Sub-titles (please include zip code for all co-author(s))

4. Signature _____ Date _____

5. Type of activity proposed (check appropriate entry)

☐ Contributed Paper ☐ Paper Set ☐ Panel ☐ Symposium ☐ Poster Session ☐ Round Table

6. Special Instructions or Comments:

7. Descriptors that would identify the topic of the proposal:

8. Are you a member of NARST? _____ Yes _____ No. If not, you must join to be on the program.

9. Please include the following materials with your proposal
(Omit author name(s) and identifying information in abstracts)

- Two completed cover sheets
- Six copies of a 500-word abstract (to be published)
- Three to six page proposal with bibliography (6 copies)
- Two self-addressed, stamped envelopes
- Two 3 × 5 index cards containing name, address and telephone number of author and paper title

10. Do you plan a NSTA presentation?

PROPOSALS MUST BE POSTMARKED NO LATER THAN **OCTOBER 15, 1990**

NARST MONOGRAPHS AVAILABLE

A Theory of Instruction: Using the Learning Cycle to Teach Science Concepts and Thinking Skills, A. Lawson, M. Abraham, and J. Renner, \$6US

Learning Environment Research in Science Classrooms: Past Progress and Future Prospects, B. Fraser, \$6US

Send orders with check payable to NARST to Glenn C. Markle, NARST Executive Secretary, College of Education, University of Cincinnati, Cincinnati, OH 45221-0002

NARST Monographs Order Form

Please send me the following:

_____ copy(ies) of *A Theory of Instruction* at a cost of \$6US each

_____ copy(ies) of *Learning Environment Research in Science Classrooms* at a cost of \$6US each

Name: _____

Address: _____

ZIP _____

SPECIAL OFFER FROM NSTA

The National Science Teachers Association has published *A Practical Guide to Modern Methods of Meta-Analysis* by Larry V. Hodges, James A. Shymanski, and George Woodworth. The list price for this book is \$9.50. As a member of NARST, you can purchase the meta-analysis guide at the special price of \$8.55, if your order is submitted on the following order form. All orders should be mailed to Dr. Glenn Markle, Executive Secretary, NARST, University of Cincinnati, Cincinnati, OH 45221-0002. Enclose a check or money order payable in **US funds** to NARST.

Meta-Analysis Order Form

Please send me _____ copy(ies) of *A Practical Guide to Modern Methods of Meta Analysis* by Hodges, Shymanski, and Woodworth at the special NARST member cost of \$8.55.

Name: _____

Address: _____

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Cincinnati, OH 45221-0002

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