

NARST Newsletter

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NATIONAL ASSOCIATION FOR RESEARCH IN SCIENCE TEACHING

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"Change — Growth Linked or Blocked?"

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The adage has a modern sound — "Growth happens where change is." Change is an appropriate descriptor of each of our lives today — but are we using it to grow?

Schools are changing — new science classes are being scheduled — and this means science teachers are needed at a time when our teaching population is aging — and in need of updating. Is there a community of science educators to respond with the leadership needed? Does our decline in number from more than 900 in 1980 to slightly more than 530 in 1985 indicate that the number of science educators has really dramatically declined?

As more demands for science teachers grow, so will the need for quality programs in science education at the graduate level. Are these programs available? A quick review of the 28 leading science education programs in 1976 suggests that 19 of them have enough institutional commitments to remain viable today. Can we meet the challenge of time with 19 resources for graduate study?

NARST itself is changing. For the past five years we have enjoyed the capable and competent services of our executive secretary, William G. Holliday. Bill has helped make excellence a routine characteristic of the NARST organization. We wish him the very best as he assumes a new leadership at the University of Maryland. As NARST experiences the changes, will we grow? Will we link together in a network that provides for our mutual support and positive contribution to the betterment of science teaching?

Change is with us — and I believe we can use it for growth.

Science Education Research Internationally

World Trend Symposium - Australia, 1984
World Trend Symposium - Germany, 1987

The 3rd International Symposium on World Trends in Science and Technology Education was held December 10-20, 1984, in Brisbane, Australia. Other symposia were in Halifax, Canada, 1979, and Nottingham, UK, 1982. The Brisbane theme, "Teaching the interactions of science, technology and society," generated 95 contributed papers from educators representing about 35 countries and was attended by 225 delegates. Copies of six-page summaries of the papers may be purchased while supplies last from Dr. Herb Martin, Brisbane College of Advanced Education, P.O. Box 82, Mount Gravatt, Brisbane, Queensland 4122, Australia. Also the presentations of the keynote speakers are to be published in the forthcoming proceedings; of particular interest to NARST members: Tom Stonier (University of Bradford, U.K.), "Teaching and Learning About Science and Society"; Dick White (Monash University, Australia), "Trends in Science Education Research"; and Ian Lowe (Griffith University, Australia), "Some Important Examples of the STS Interaction."

From the symposium emerged a formal organization: the International Organization of Science and Technology Education (IOSTE) with George Za'rou of Lebanon (NARST member) as chairperson, Geoffrey Harrison of the U.K. as Deputy Chairperson, and Jacques van Trommel of the Netherlands as Secretary-Treasurer. Also established was a special interest group, "Science-Technology-Society Research Network" (STSRN) which has its secretariat at the University of Saskatchewan (Glen Aikenhead, NARST member). A research program has been developed by the STSRN for collaboration over the next two years, culminating at the 4th International Symposium in Kiel, West Germany, August 1987. — Glen Aikenhead

NARST Meeting Overlaps With NSTA Convention

**AERA activities are important to NARST
NARST meets in Washington, DC - 1987**

NARST will meet again with NSTA (National Science Teachers Association) in San Francisco. Specifically, NSTA will meet March 26-29 while NARST will meet from noon March 28-31, excluding the morning of March 30 - Easter Sunday. A number of participants at the 1985 meeting requested that NARST and NSTA meetings overlap with each other.

NARST meeting and sleeping rooms will be located at the Hotel Meridien, across the street from the NSTA focus of activity - The Moscone Convention Center. Reservation forms and registration materials will be included with the next newsletter.

(Originally, NARST planned to meet in San Francisco before AERA and overlap with NSTA. But, AERA in the spring of 1985, changed their meeting dates in San Francisco, thus leaving a two-week gap between NARST and AERA meetings. This late change by AERA is viewed as unfortunate by many NARST members. Prior contracted arrangements prevented NARST from also rescheduling its 1986 meeting dates - thus juxtaposing the meetings of NARST and AERA. As a consequence, your NARST executive board will seriously consider placing the 1987 annual meeting either before or after AERA's meeting in Washington, D.C.)

The NSTA "Every Teacher A Research" (ETR) Program

The Research Division of the NSTA (National Science Teachers Association) is establishing a "Research Registry" of teachers who are interested in participating in research projects. In upcoming issues of *Science and Children*, *Scope*, and *The Science Teacher*, a series of short articles describing research areas recently identified by an NSTA survey of classroom teachers will appear under the title, "Every Teacher A Researcher". These articles will be written by experts in the various areas and will outline questions and problems for possible future research. Each article will contain a registration card that can be completed and returned. Pertinent information from responding teacher (e.g., grade level, subject area, school size, etc.) will be contained in the Registry. The Registry will be made available at cost to

anyone interested in contacting practicing teachers for possible involvement in research projects. The first compilation will be available in the summer, 1986. Registering in the program in no way will commit a teacher to any research project. The completed card simply indicates his/her interest in participating.

The first article in the series will report the results of an NSTA survey in which teachers (elementary and secondary) will identify critical areas needing research. Subsequent articles in the series will focus on each of these areas and contain registration information. - Jim Shymansky (NSTA Research Division Director)

Announcements

If you have NARST documents of historical interest to our archivist, please contact: Dr. Paul Joslin, Reading-Learning Center, Drake University, Des Moines, IA 50311 (Phone: 515-271-3982).

If your institution is seeking professorial candidates with interests in research in science teaching, consider requesting the NARST mailing labels for distribution of employment notices. The current rental charge for each mailing is \$100.

The Pennsylvania State University, College of Education recently established a Center for Education in Science, Technology and Society (CE-STS). It is the mission of the CE-STS to provide leadership in STS Education through curriculum development, instruction, evaluation, staff development, dissemination and research. The CE-STS staff is available for consultation on staff development activities in STS Education for school districts. Contact: Dr. Peter Rubba, CE-STS, Division of Curriculum and Instruction, The Pennsylvania State University, University Park, PA 16802, 814-865-2430.

NARST Seeks New Executive Secretary

Holliday promises to help new secretary.

Dave Butts, president of NARST, encourages members to consider applying for the position of executive secretary, as described in a notice mailed separately to members. Bill Holliday, retiring executive secretary, promises to provide assistance to the new executive secretary. For additional information concerning this position in NARST, please contact Dr. David P. Butts, Science Education Department, University of Georgia, Athens,

GA 30602 or telephone 404-542-1763. Interested candidates are also encouraged to contact informally other executive board members including the current secretary. A formal announcement regarding the appointment of a new secretary will be mailed to the membership.

The contents of Dr. Holliday's letter (July 3, 1985) of resignation is recorded below.

I am resigning my appointment with NARST as executive secretary, effective December 31, 1985.

I appreciate the exceptional cooperation and the flexible arrangements accorded to me by the executive board and the other members of the Association. My experience with NARST during the past five years has been a very pleasant and rewarding one.

The reason for my resignation is because I have accepted a new university position (director, science teaching center and professor of curriculum and instruction, the University of Maryland).

This new position was to become effective on August 1 with an option to begin on July 1. Instead, the University of Maryland has agreed to delay my starting date to January, 1986, solely because of the need to provide proper notice to the executive board of NARST. In this respect, I appreciate the willingness of the University of Maryland to reschedule my new duties and responsibilities with the goal of ensuring a smooth transition of the NARST secretariat. Moreover, I appreciate the continued support provided by my Dean, Robert Lawson, and his need to identify a replacement to teach our department's courses in science education and research methodology. In addition, I appreciate the need for the executive board to exercise its responsibilities, as prescribed in our by-laws: Sections 3.04, part D.

Outstanding Paper and Practical Application Award

An invitation to submit your 1985 NARST paper to awards committee

Submission Deadline: October 1

Each year at the annual meeting of the Association, the NARST Awards Committee recognizes persons whose papers, presented at the meeting the preceding year, are judged to be outstanding for their contributions to science education research or for practical applications of research to classroom practice.

The NARST Awards Committee invites all persons who presented papers at the 1985 meeting in French Lick to submit ten (10) copies of the complete paper and an abstract (a copy of the abstract should accompany each paper) for consideration for the Outstanding Paper Award. These awards will be presented at the next NARST meeting in San Francisco.

Papers are judged on (1) significance of problem investigated, (2) conceptual background, (3) research approach, (4) methodology, (5) significance of outcomes, (6) conclusions, (7) communication of information, (8) overall uniqueness. For the practical applications award, there is a ninth category: evidence of practical applications for practitioners.

Please send, by October 1, 1985, the ten (10) copies of your paper and abstract and a stamped self-addressed post card (which will be returned to you upon receipt of your papers) to:

Patricia E. Blosser
ERIC Clearinghouse for Science, Mathematics,
and Environmental Education
1200 Chambers Road, Rm. 310
Columbus, OH 43212

Please include a cover sheet containing the following information: Name, address with zip code, telephone numbers and designate — outstanding award *or* practical application award.

Officers of NARST 1985-1986

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Second Call for Proposals — 1986

GENERAL INFORMATION

The 1986 annual meeting will be held in San Francisco from noon, March 28 to noon, March 31. (NARST will not meet on Easter morning, March 30.) This meeting will overlap with NSTA's convention (March 26-29), as requested by some NARST members. NARST will hold its meeting in the new and luxurious Hotel Meridien located between Union Square and (across the street from) The Moscone Convention Center (home of NSTA's meeting and exhibit facilities). Since this medium-size hotel will also accommodate some NSTA members and since NARST members will receive a rate reduction of about 46%, NARST attendees are encouraged to make reservations upon receipt of their hotel forms (November 1985, NARST newsletter). NARST cannot guarantee the availability of room accommodations, especially

with the recent increased popularity of NARST annual meetings (1984 — 210 registrants, 1985 — 307 registrants).

NARST encourages the presentation of a wide variety of scholarly papers reporting investigations in all aspects of science education. Historical, philosophical, ethnographic, and evaluative studies as well as reports of empirical research and critical reviews are welcomed. Moreover, NARST's 1986 program committee encourages scholarly presentations focusing on the translation of research studies into classroom practices.

An individual may present only one paper but may be listed as co-author of another paper and may also participate in a symposium or as a presider or discussant. For participants unfamiliar with the format and atmosphere at NARST meetings, presenters are strongly encouraged to stimulate discussion. Audiences at NARST meetings want to be active and not passive spectators. All presenters must be registered at the NARST meeting. Overhead projectors and screens will be provided at no charge.

If you have any questions, please contact James Barufaldi (515-471-7354), program chairperson, or William Holliday (403-274-7485), executive secretary.

NARST members and others who wish to make presentations at the meeting may submit proposals in any of the following formats:

1. **CONTRIBUTED PAPER.** Generally, brief 10 to 15-minute reports of research which are grouped by the program committee into three or four per session. Discussants are usually assigned to these sessions and presenters will provide discussants with a copy of the paper before the annual meeting, received not later than February 28, 1986.
2. **PAPER SET.** Several related papers originating from a common base of research are presented in one session. This format accommodates from three to five papers that may divide a single report which represents a major research effort. This format allows for common elements of design or approach to be presented only once rather than be repeated by each presenter.
3. **SYMPOSIUM.** A symposium should focus on a specific issue or topic of some importance and present a variety of perspectives. It should provide for interaction among participants with diverse points of view. Proposals should be submitted as a package, listing participants by name on the cover sheet. The summary should include a statement of each presentation, containing such information about the background and interests of each participant as

may be relevant. Names on the proposals, however, should be omitted.

4. **RESEARCH METHODS WORKSHOP.** These sessions are designed to enable NARST members to acquire new research skills or update old ones. These one-or two-hour sessions are planned for intensive involvement by those in attendance, and presenters are expected to provide resources for study and discussion.
5. **POSTER SESSION.** Informal presentations that allow for discussion with the researcher. A display of graphic materials should be incorporated.

3. Six copies of an abstract of 300-500 words to appear in ERIC Abstracts. Omit name(s) of author(s). Bibliographic references are not appropriate in the abstract.
4. Two 3" x 5" index cards containing typed name, address, and telephone number of author and title of paper.

The above items are to be sent to:

James Barufaldi
 Science Education Center
 The University of Texas at Austin
 Austin, TX 78712

Deadline (proposals received): October 11, 1985.

MATERIALS TO BE SUBMITTED

1. Two copies of completed Cover Sheet.
2. Six copies of a double-spaced summary, including bibliography, of not more than 6 pages in length. Omit names of author(s). The summary should ordinarily include:
 - a. purpose of study;
 - b. theoretical basis for study;
 - c. procedure of study;
 - d. results or conclusions of study;
 - e. implications for teaching science.

REVIEW OF PROPOSALS

Anonymous review of proposals will be done by two or more members of the program committee. Criteria will include items a-e above. Notification of the decision by the program committee will be made mailed by December 31, 1985.

ADVANCE PROGRAM

An Advance Program, and conference registration and hotel reservation forms, will be mailed to all NARST members in the late fall.

COVER SHEET**1986 NARST ANNUAL MEETING — HOTEL MERIDIEN, SAN FRANCISCO**

(Please type requested information)

1. TITLE OF PAPER OR SYMPOSIUM _____

2. FIRST AUTHOR PRESENTING PAPER

Name _____ Phone _____

Institution _____

Address (including zip or postal code) _____

3. NAME AND INSTITUTIONAL ADDRESS OF CO-AUTHOR(S), AND, IF APPROPRIATE,
SUB-TITLES

4. SIGNATURE _____

5. SPECIAL INSTRUCTIONS OR COMMENTS _____

PLEASE NOTE — If accepted, your session will appear in the program as you have listed it above. Have you included the essential information above?

Thank you for your interest in improving science teaching — through research.