

Vol. 24(3)

NATIONAL ASSOCIATION FOR RESEARCH IN SCIENCE TEACHING

September 1982

President's Column

As we enter into the new school year, it is important that we pay attention to one of the crucial concerns of NARST. We need new members and we need to encourage the participation of all our present members. The current economic climate has meant, in many instances, that each of us has had to re-examine our membership in professional organizations and it is important that NARST be included by all of us as a high priority organization to which we ascribe both our dollars and participation.

Participation by all members is crucial to the success of any organization. NARST is no exception. If each of us as members would accept an obligation of the recruitment of one new member to our organization, our roles would double. I'm sure that each of us is aware of an active science educator interested in research who would make a good member of NARST. We need to encourage new members from community colleges, industry, and public schools not only to help our membership to double, but also to diversify. As this year's president, I encourage all of us to accept the challenge for our organization. In this way, NARST can grow and prosper.

Sincerely,

Carl F. Berger President, NARST

NARST vs. Wiley Publishers

NARST spent a great deal of time and effort during the first half of 1982 negotiating a new contract with John Wiley & Sons, Inc. Publishers, publishers of the *Journal of Research in Science Teaching (JRST)*.

Two problems were apparent to the officers of NARST. First, Wiley was charging NARST \$30.00 per member for mailed copies of JRST based on vague contractual guidelines agreed to by NARST in 1967. (The remaining revenues from membership fees have not been covering the expenses of the Association, as indicated in the June Newsletter.) Second, Wiley essentially "owned" JRST because of the termination penalties outlined in our 1967 contract were so severe (e.g., apparently over \$34,000 for the year 1982 and as much as \$100,000 for the year 1987) that NARST realistically was at the mercy of Wiley. Indeed, as one official at Wiley put it, the termination penalties in our contract were severe and were there for a good reason. Fortunately, Wiley has never exercised its full power over NARST. Nevertheless, it was considered a poor business practice to permit an external corporation to be in such a powerful position, especially considering the fact that Wiley currently owns and controls the other research journal in our area, Science Education.

To solve these crucial problems, the officers of NARST gave the executive secretary authority either to negotiate a new contract or to terminate our current contract with Wiley, to establish our own mechanisms for publishing *JRST* and to prepare for a legal battle in the New York State courts. Because of the potential impact of this matter on the future of science education and NARST, these problems constituted the major issue at our recent board meetings.

The solution to these problems required NARST to employ an excellent litigation lawyer, Robert J. Dwyer (100 Park Avenue, New York, NY 10017 - a recommendation from a NARST board member, Dr. Jane Kahle), to prepare to publish nine issues of JRST for 1983 and to coordinate the negotiations on both of these fronts. Incidentally, Mr. Dwyer's price for his professional services reasonably could have ranged from \$4,000-\$7,000. His fee to us totalled \$500.

The executive secretary would like to thank the NARST board for their confidence and cooperation



in resolving these problems. The work of Dr. Jim Shymansky, editor of JRST, was particularly helpful throughout these negotiations.

After hundreds of phone calls and many letters to Mr. Dwyer, other counsel, the NARST board, publishing houses, other professional associations and printing-circulation agents, the executive secretary is pleased to report that NARST is independent of any corporation (or professional association) and will continue to have Wiley publish JRST for at least five more years. In the end, Wiley agreed to drop its current price to members from \$30 per year (1982) to \$20 per year for each year of the new contract -1983, 1984, 1985, 1986 and 1987. Furthermore, Wiley agreed that the \$20 price may be increased for the renewal period of the new five-year contract (1988, 1989, 1990, 1991 and 1992) only with NARST's "consent, not to be unreasonably withheld." Furthermore, Wiley clearly agreed to provide NARST with our institutional subscription list for JRST far in advance of our termination with Wiley at some possible future date. (In the old contract, we would not have been able to acquire our circulation list in time to invoice institutions renewing their subscription to JRST.)

In addition, the termination penalties described in the new contract are dramatically reduced to \$6,300 for which NARST will receive 100 volumes (nine issues per year) of back issues of *JRST* for the previous four years. Moreover, an attractive (to NARST) royalty plan was negotiated for our last year with Wiley rather than on successive years following our last year with Wiley. Furthermore, Wiley will keep us abreast of their promotional efforts - a real concern of the NARST board during 1981-1982. A number of other minor points were negotiated, including an additional \$1,000 to the NARST treasury for the next five to ten years and a rational and clearly-worded contract - fair to both Wiley and NARST.

How did NARST do this so well at the bargaining table? Mr. Dwyer contended that NARST illustrated an awareness of the complexities involved in such negotiations and a willingness to keep pressing the case with the people at Wiley often on a day-to-day basis at crucial times during the negotiations. Wiley knew we meant business and they responded in a polite, businesslike manner.

Finally, Wiley's representatives, Mr. Allan Wittman, publishers, Wiley-Interscience Journals, Mr. Richard Rudick, general counsel and secretary of

Wiley, and Mr. Kenneth B. Collins, vice-president of Wiley, truly bargained in good faith. They are to be commended for their professionalism and sincere interest in maintaining a good relationship with NARST. NARST, on the other hand, is looking forward to a continued, excellent working relationship with the people at Wiley.

Status Report on NARST

NARST is in good shape. First, we have resolved our differences with Wiley Publishers and anticipate a continued healthy relationship with them. Second, our conference attendance is exceptionally high, considering the size of our membership, and attendees seemed to be pleased with the quality of presented papers and the many informal opportunities to meet and discuss issues of common interest. Third, many of these attendees have informed the officers of NARST that the general quality of *JRST* articles has significantly increased during the past year and that the editorial board seemingly is evaluating submitted manuscripts using record-high standards, yet with an increasingly open mind to non-traditional works of high quality.

NARST's only major problem is a decreasing membership, especially during the last year. As the economy improves and our membership rates remain stable over the next few years, undoubtedly things will turn around. Nevertheless, the most important contribution members of NARST can make at this time is to encourage everyone concerned about better science teachingthrough research - to join NARST. Drop us a line or phone us and we'll send you some membership forms.

School Science: Recent Reactions from Washington

(A General News Article)

Identifying school systems where students are lucky enough to have competent science teachers is becoming increasingly more difficult, according to a copyrighted article in *Science* by Frank Press, president, National Academy of Sciences in Washington, D.C. 20418. For example, only half of the students in the United States have enrolled in science courses beyond the tenth grade. (Compared with other industrialized countries, this statistic is most unimpressive.) To make a bad situation worse, only half of the science teachers hired last year were fully



certified by their states. Moreover, 38 states reported a shortage of teachers competent to teach science. The real danger, here, is the continuing erosion of precollege teaching of science to a generation of youngsters who lack the schooling necessary to participate in a technological age - a matter of concern to all. Thus, the National Academies of Science and Engineering and the AAAS have been holding discussions with scientists, engineers and politicians in hope of getting universities, governments, industries and responsible citizens working together on today's problems of inadequate scientific literacy among precollege students.

Mr. Press claims that science teachers and textbook publishers are encouraging students to memorize and regurgitate scientific facts rather than to think. Furthermore, he suspects that teachers are concentrating on abstract notions without connecting such concepts to the real world of the learner. In this respect, Press (and Carl Sagan) recommends that teachers and authors talk more about "the stars of astronomy, the flowers of botany and the mountains and valleys of geology."

Central to the meetings (see June Newsletter) held this summer in Washington D.C., is the concern for how we teach children and what we consider profitable science for the future generations of young people. To meet this challenge, the National Science Board has created a Commission on Precollege Education in Mathematics, Science and Technology. (For more information, write NARST.)

1983 NARST Meeting

(Just a Reminder)

NARST will meet next spring before the meeting of the National Science Teachers Association (NSTA). The Dallas-Hilton was the chosen location one of the closest hotels to the downtown Convention Center. Specifically, our NARST meeting will begin on the evening of April 5 and end at noon on April 8. NSTA will meet from the afternoon of April 7 (mostly committee meetings on this day) through April 11. NARST room rates were negotiated at \$31.00 (per person, double occupancy - based on availability). NSTA informs us that none of their other hotels will offer such low rates.

Make your reservations early with the Dallas-Hilton through NARST and continue your stay at the Dallas-Hilton for the NSTA national convention. Re-

servation forms will be included in the December newsletter. Encourage your colleagues to stay at the Dallas-Hilton and invite them to our meetings and receptions at the hotel. (Be sure to read the article in this issue on the evaluation of the 1982 NARST meeting.)

Evaluation of the 1982 NARST Meeting, The Abbey, Lake Geneva, Wisconsin

Persons who attended the 1982 NARST Annual Meeting at The Abbey were asked to complete the following form. The results of a questionnaire were reported Dr. Hans Andersen of Indiana University and were compiled for use by the program committee in their planning of the 1983 Dallas meeting. We thought the general membership would be interested in the results of this questionnaire.

Interpret the coded response columns described in proportions as follows: SA - Strongly Agree; A - Agree; U - Undecided; DDisagree; SD - Strongly Disagree.

		SA	Α	U	D	SD
1.	The NARST Annual Meet-	.73	.27			
	ing provides a suitable					
	forum for presenting and					
	discussing research.					
2.	The number of papers pre-	.23	.36	.05	.36	
	sented at each session was					
2	suitable.	. 10	20	4.4	45	
3.	The paper sessions pro- vided time for questions		.23	.14	.45	
	and discussion.					
4.	The Annual Meeting pro-	45	.41	.09		.05
٦.	vides a suitable blend of	.40	. 1,71	.00		.00
	papers.					
5.	Papers were presented that	.36	.45	.14	.05	
	cover the range of impor-					
	tant topics in science					
	education.	41				
6.	The Annual Meeting is a	.68	.32			
	place to get and share					
_	ideas.		-			
7.	The practice of providing		.32	.05	.05	.09
	formal critiques of papers	5				
	should be expanded to					
8.	more sessions next year. NARST should continue to		.36	.18	.18	
0.	offer training sessions at	.21	.30	.10	.10	
	the Annual Meeting.					
9.	The presiders did a good	.50	.45	.05		
	job of keeping people on			,,,,		
	schedule.					
10.	Presenters did a good job	.18	.68	.05	.09	
	of communicating their					
	ideas.					



.32

.57

.32

.23

.36

.05

.09

.05

.09

.14

.18

.18

.05

	,	
11.	Roundtable discussion	.23
	papers should be offered	
	again next year.	
12.	The major speakers pre-	.24
	sented useful information	
	on important topics.	
13.	If the number of papers	.23
	submitted warranted it,	
	running five concurrent	
1.50	sessions would be accept-	
	able (four have been used).	
14.	The Annual Meeting	.68
	should continue to offer	.00
	times for socializing.	
15.	What were the two best	
	things about the Annual	
	Meeting?	
2 -	Colleagues 11	
	Meta analysis 1	
	Papers 6	
	Poster session 2	
	Provides forum 5	
	Setting 4	
	Training session 3	
16.	What are two things that	
10.	should be changed about	
	the Annual Meeting to	
	make it more helpful to	
	you?	
	Every other year with AERA	
	2	
	Feedback to presenter 1	
	Fewer sessions, more dis-	
	cussion time 4	
	Have a job board and inter-	
	views scheduled 2	
	Locate meeting in city 1	
	Micro computer disk swap	
	session 1	
	More planned meals 1	
	Move it south 1	
	No half-day sessions 1	
	No smoking policy 1	
	NSTA/AETS/NARST over-	
	lap desirable 4	
	Organize presentation bet-	
	ter 1	
	Papers on same topic	
	should not be scheduled at	
	same time 1	
	Time between sessions, 15-	
	20 minutes 1	
17.	What are your overall com-	
	ments about the 1982	
	NARST Annual Meeting?	
	Excellent 4	
	Fair 1	
	Good 2	
	Great 1	
	Interesting and stimulating	
	1	
	Productive & worthwhile 1	

Successful 1
Two great meetings in a row 1
Very good 3
Very well organized 1

About Jerry J. Nisbet

Dr. Nisbet has been a long-time supporter of NARST and has just received the 1982 Outstanding Faculty Service Award from Ball State University in Muncie, Indiana. The members of NARST appreciate the kind of contribution Dr. Nisbet has made to research in science teaching.

Lost in the Mails

Apparently the post office in lowa City, lowa, failed to process our latest (June 1982) newsletter as promised. Consequently, many of the envelopes containing newsletters left lowa without proper postage and ended up back in Calgary. In the future, we will mail our newsletters directly from Calgary. For the present, if you did not receive your summer newsletter, please send us a note and we'll mail you a copy.

Register-Directory: Members of NARST

(Just a Reminder)

If you mailed your dues to us before about February 15, 1982, and were not at the annual meeting at The Abbey, send us a note and we will mail you a free copy of the Register-Directory. Others may obtain copies by mailing their requests with a \$7.00 cheque (\$5.00 - document, \$2.00 - postage and handling) to the executive secretary.

Research in Science and Technological Education

Dr. W.J. Wilkinson has announced subscription rates for the new journal, *Research in Science and Technological Education*. For more information about the journal, write Dr. Wilkinson at the Science Education Center, University of Hull, HU6 7RX, England. If you would like to subscribe to this journal, write Carfax Publishing Company, P.O. Box 25, Abingdon, Oxfordshire OX1 4RW, England. The subscription rate for one year is £26.00, post free.



Individuals receiving the journal at a private address for their own use may subscribe at a 50% discount (£13.00).

1983 Election of NARST Officers

Dr. Stanley Helgeson, past president, and his committee (Drs. Joseph Novak and Paul Joslin) announced the slate of candidates for the 1983 election. A detailed description of their accomplishments and a ballot will be enclosed in the next newsletter.

PRESIDENT-ELECT

Seymour Fowler 168 Chambers Building Pennsylvania State University University Park, PA 16802

Ertle Thompson Ruffner Hall University of Virginia Charlottesville, VA 22903

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Edward L. Smith E-37 McDonel Hall Michigan State University East Lansing, MI 48824

Outstanding Paper Award

The NARST Awards invites all those who presented papers at the 1982 Convention at the Abbey to submit eight (8) copies of the completed paper for selection of The Outstanding Paper Award. This award will be presented at our next convention in Dallas. Please send by October 15 the eight copies of your paper and a stamped self-addressed postal card (which will be returned to you on receipt of your papers) to Linda R. DeTure, SEHD, Box 2726, Rollings College, Winter Park, Florida, 32789.

NATIONAL ASSOCIATION FOR RESEARCH IN SCIENCE TEACHING

Officers and Committee Members for 1982-1983

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Syracuse, NY 13210

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Russell H. Yeany (1985) Science Education Department University of Georgia Athens, GA 30602

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Call For Proposals - 1983

General Information

The Annual Meeting will be held in Dallas, Texas, April 5-8, at the Dallas-Hilton Hotel. The NARST meeting will immediately precede the NSTA Annual Convention. For more details read the article, 1983 NARST Meeting, or write to the executive secretary of NARST.

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. Papers should be classified into one of the following Topic Areas: (1) Teacher Education: Preservice; (2) Teacher Education: Inservice; (3) Teacher Behaviors or Characteristics; (4) Student Behavior or Characteristics; (5) Instruction; (6) Learning Theory; (7) Curriculum Development or Evaluation; (8) Research Methodology; (9) Instrument Development or Use; (10) Scientific Literacy; (11) Social Issues; (12) Other.

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.

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



- Contributed Papers. Generally, brief 15-minute reports of research are grouped by the program committee, three or four in each session. This format accommodates persons who have not planned to report their research with other members of a team. Discussants are usually assigned to these sessions and presenters will provide discussants with a copy of the paper before the annual meeting.
- 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. Round-Table Discussion Round-table discussions are used to provide a thorough analysis of a paper by a group. Presenters will have an hour in which various aspects of a study are examined with others in a discussion format. If members agree to present their research in this format, they should bring such materials as protocols, instruments, computer printouts, experimental curriculum materials, and logs to aid the discussion. This format is not conducive to presentations which require the use of audio-visual equipment.
- 4. 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, however, should be omitted.
- 5. Research Methods Seminar/Workshop. These 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.
- Poster Session. Informal presentations that allow for discussion with the researcher. A display of graphic materials should be incorporated.

Materials to be Submitted

- 1. Two copies of completed Cover Sheet.
- 2. Six copies of a 3-5 page single-spaced summary with bibliography. Omit names of author(s). The summary should ordinarily include: (a) objectives or purpose; (b) methods; (c) data sources; (d) results or conclusions; (e) significance. (If the proposed paper cannot be summarized in this form, some other appropriate form may be used.)
- 3. Six copies of an abstract of 100-200 words to appear in *ERIC ABSTRACTS*. Omit name(s) of author(s).
- 4. Two self-addressed, stamped envelopes.
- 5. Two 3" x 5" index cards containing typed name, address, and telephone number of author and title of paper, in that order.

Mail to: Ann C. Howe, 101 Heroy Bldg., Syracuse University, Syracuse, NY 13210

Deadline (Proposals Received): October 15, 1982.

Review of Proposals

All proposals will be reviewed blind by two or more members of the program committee. Criteria will include (a) relevance to science education, (b) general quality, and (c) clarity of expression. Those who submit proposals will be notified of the decision of the program committee as soon as possible after final decisions are made.

Advance Program

An Advance Program, and conferenceregistration and hotel-reservation forms will be mailed to all NARST members.

Further Questions

If you have other questions about the 1983 Dallas meeting, please telephone or write the executive secretary.



COVER SHEET 1983 NARST ANNUAL MEETING — DALLAS, TEXAS

1.	TITLE OF PAPER OR SYMPOSIUM					
2.	AUTHOR PRESENTING PAPER					
3.	AUTHOR'S AFFILIATION PHONE AUTHOR'S ADDRESS					
4.	NAMES, AFFILIATIONS, ADDRESSES OF CO-AUTHOR(S) OR OTHER PARTICIPANTS					
5 .	PREFERRED PROGRAM FORMAT					
	Are you willing to have paper assigned to another format if necessary?					
6.	TOPIC					
7 .	TYPE OF RESEARCH					
8.	DO YOU NEED AN OVERHEAD PROJECTOR?					
9.	WOULD YOU BE WILLING TO SERVE AS DISCUSSANT OR PRESIDER?					
10.	Signature					