



NARST

Newsletter

Vol. 16, No. 3

NEWSLETTER OF THE NATIONAL ASSOCIATION FOR RESEARCH IN SCIENCE TEACHING

September, 1974

FROM PRESIDENT YAGER

The beginning of a new academic year results in many changes in our membership and activities in NARST. Many are reported in this NEWSLETTER; others will appear in future issues. All of the Committees and special appointees have been busy during the months since our Annual Meeting. All are now preparing their reports for a meeting of our Executive Board on October 4. If other members have ideas, special requests and/or suggestions for NARST during 1975 or beyond, these should reach me or secretary Paul Bell before October 1. Any decisions needed by the Board will receive attention at our meeting. As you know, the Executive Board will not meet again until just prior to our Annual Meeting in March in Los Angeles.

In this special message, as a new year begins, I would be remiss if I did not emphasize and share my enthusiasm for one of our newest and most significant ventures in NARST. This, of course, is our new Patron Awards program. Many members present at our Chicago meeting will recall the announcement of the program at our noon luncheon. This new program is another mechanism for recognizing significant contributions of our members. However, it is more! It is a challenge for our members to concentrate on new ideas and new approaches for communication problems in science education. Such ideas will undoubtedly serve as catalysts for new lines of research and new cooperative endeavors. It is an exciting attempt for us to act collectively in identifying and solving problems.

Other announcements have been made concerning the Awards. The 1975 topic is "Application of Science Education Research to the Classroom." All members are encouraged to enter the competition for the first NARST Patron Award. Guidelines and additional information are available from Jim Gallagher (Governors State University, Chicago), who is chairman of the Committee for 1975.

Your comments and suggestions are earnestly sought as NARST continues as a major force in stimulating, communicating, and improving research in science education. Some new activities are underway by some new committees since our spring NEWSLETTER. Other activities by other members certainly are possible during the seven months that remain in the terms of office for members comprising our '74-'75 Leadership Team.

--Robert E. Yager, President

48th ANNUAL MEETING: LOS ANGELES HILTON MARCH 17-20

1974 REVIEW OF RESEARCH AVAILABLE

The Review of Research in Science Education for 1972 by Dr. Joseph Novak is now available. Over 400 documents were reviewed for this report and 231 were abstracted and summarized under 19 category headings. Dr. Novak has asserted a strong editorial position for purposes of summarizing and interpreting the research results.

Copies of the Review may be ordered at a cost of \$2.50 plus 25¢ for handling from:

CENTER FOR SCIENCE AND MATHEMATICS EDUCATION
244 Arps Hall
College of Education
The Ohio State University
Columbus, Ohio 43210

----- NARST ELIGIBILITY FOR AAAS FELLOWS -----

Catherine Borrás, Assistant to the Executive Officer, AAAS, reports the following information of interest to members of NARST:

"Under the Association's old constitution, election of AAAS members to fellowship was a responsibility of the Board of Directors. AAAS members who were also Members of the National Association for Research in Science Teaching were deemed by the Board to be eligible for automatic election as AAAS Fellows, upon application for that honor.

The new constitution assigns authority to elect Fellows to the Council, rather than to the Board. The former provision concerning Members of the National Association for Research in Science Teaching is therefore no longer in effect.

Members of your organization who are interested in becoming Fellows of the AAAS should apply to the AAAS Executive Office, 1776 Massachusetts Ave. N.W., Washington, D.C. 20036, for information concerning present nomination and election procedures."

.....:PAST-PRESIDENT WELCH REPORTS ON NOMINATIONS:.....

The Nominating Committee discussed a number of candidates for the President-Elect and Executive Board of NARST. According to the Bylaws, the slate of nominees is not to be published until four months prior to the Annual Meeting. Thus, the slate of nominees will be published in the December 15 NEWSLETTER.

Subsequent to the publication of the names, the members are given one month to nominate their own candidates. At that time, three months prior to the Annual Meeting, the full slate of officers is determined. Two months prior to the Annual Meeting, the election takes place, and one month prior to the Annual Meeting, the results are tabulated.

LETTERS TO THE EDITOR ARE WELCOME. Address H. Seymour Fowler, 150 Chambers Bldg.,
The Pennsylvania State University, University Park, PA 16802

NATIONAL ASSOCIATION FOR RESEARCH IN SCIENCE TEACHING

1975 Elections

Nomination Petition

We, the undersigned NARST members, nominate _____

(full address)

for the office of:

We have determined that the nominee is a member of NARST and will accept the office for which he is nominated if elected.

A minimum of 10 valid signatures required.

	<u>Name</u>	<u>Address</u>
1.		
2.		
3.		
4.		
5.		
6.		
7.		
8.		
9.		
10.		
11.		
12.		
13.		
14.		
15.		

Mail Petition to:

Dr. Wayne W. Welch
College of Education
University of Minnesota
Minneapolis, Minn. 55455

NOTE: The NARST Constitution requires that all petitions be received by the Election Committee at least four months prior to the Annual Meeting.

DUE NOVEMBER 15, 1974

NEWS FROM THE MEMBERSHIP

MITCHELL E. BATOFF, associate professor of science education at Jersey City State College, recently received two grants of aid for the production of a multiple image 16 mm. film. The film will distill and synthesize several miles of 8 mm. footage and a freight car of 35 mm. transparencies accumulated over a six year period. Its purpose will be to show a coupling of four significant and interrelated components in the science preparation of elementary school teachers: (1) sessions in the laboratory-centered methods course in which methods teaching is done by example rather than precept; (2) the terminal assignment and major project in the course; (3) continuity and follow-up help during the apprentice teaching experience; (4) continuity follow-up, and inservice assistance in the teacher's own classroom during the first five years after graduation.

JEAN BEARD, San Jose State University, School of Science, San Jose, CA 95192, reports, "We are in the second phase of a survey to follow-up an estimated 1000 science education secondary teaching credential (certificate) candidates who majored or minored in science from 1947-1972 at San Jose State University. From the first phase we are in contact with over 400 people, most of whom are not far from San Jose (50 percent within 30 miles, and 95 percent in California.)

"Our return rate is difficult to estimate since about 300 of our names and addresses are still of doubtful accuracy. It looks as if we will get much help from these people in our subsequent efforts to investigate strengths and weaknesses of our preservice programs as viewed by experienced teachers.

"In view of the size and stability of our alumni population it appears that we may have an unusual research opportunity. Any information or comments from NARST members about this supposition are most welcome."

JOHN J. KORAN, JR. has been promoted to full professor and will continue as chairman of the Science Education section at the University of Florida. The past summer, he and Mary Lou Koran have visited colleagues at Trinity College and Dublin College in Ireland, a number of British universities and schools, and the Scottish Schools Science Equipment Research Centre in Edinburg, Scotland.

John has recently been pursuing the following research lines: 1) assessing the effects of acquired teacher behavior on student learning; 2) concept formation research in English and Indian; 3) process acquisition and wait-time acquisition of teachers and effects on children; 4) use of modeling with young children for process acquisition.

H. SEYMOUR FOWLER is President of Alpha Tau Chapter, The Pennsylvania State University of Phi Delta Kappa for 1974-75. He was recently elected President-elect for 1975 and President for 1976 of the Pennsylvania Science Teachers Association.

JAMES R. OKEY, Associate Professor and Coordinator of Science Education at Indiana University provided the following information for the NEWSLETTER:

DONALD HUMPHREYS, Visiting Professor for the last two years, will move to Temple University as an Associate Professor of Science Education.

JAMES WEIGAND spent three weeks in August teaching at a National Science Foundation elementary science workshop in Beirut, Lebanon.

ALLAN KONDO will return to Indiana University after four years in Afghanistan where he has assisted in the development of their elementary school science curriculum.

NATIONAL ASSOCIATION FOR RESEARCH IN SCIENCE TEACHING
PLACEMENT INFORMATION SERVICE

This service provides NARST members with lists of personnel seeking employment and employment opportunities. Contacts and interview arrangements are the responsibilities of the interested parties. The deadline for completed forms is January 1, 1975. The listings will be mailed to NARST members on request in early February so that contacts may be made prior to the annual NARST meeting. Information received after the January 1 deadline will be distributed at the Annual Meeting. Please send the completed form to:

Placement Committee Members

Marvin Druger, Chairman
Alfred T. Collette
Ann C. Howe
William C. Ritz
Larry E. Schafer

Dr. Marvin Druger
NARST Placement Coordinator
800 Biological Research Labs
Syracuse University
Syracuse, New York 13210

PERSONNEL SEEKING EMPLOYMENT

NAME (PRINT): _____
Last First Initial

TYPE OF POSITION DESIRED:

ADDRESS: _____

Number Street

EXPERIENCE:

City State Zip

TELEPHONE: _____
(office) Area Code Number

(home) Area Code Number

DEGREE: (check) DATE COMPLETED OR ANTICIPATED

___ M.S. or M.A. _____

___ Ph.D. _____

___ Ed.D. _____

INSTITUTION GRANTING HIGHEST DEGREE:

SPECIALIZED INTERESTS: _____

NEWS (continued)

RICHARD L. CAMPBELL, Asst. Prof. of Science Education teaches both undergraduate and graduate science methods courses at Univ. of Indiana, Bloomington.

PAUL H. JOSLIN will be on leave next year to study science relevant experiences of children in different social groups in New Guinea and Indonesia.

ROBERT B. SUND, Department of Science Education, University of No. Colorado, was elected Distinguished Scholar of the Year 1974 by his University Faculty.

WILLIAM R. OGDEN, E. Texas State Univ., has received a faculty research grant to study the objectives of secondary school biology teaching during the 1918-1972 period.

EDWARD VICTOR is writing revisions (3rd edition) of Science For the Elementary School and Readings in Science Education for the Elementary School. Both revisions will be ready Jan. '75.

RONALD D. TOWNSEND was nominated for Outstanding Secondary Educator of America, was included in the '74-'75 Who's Who in America, is Center Leader for ISIS (Midwest Center), and Director of Title III Mini-grant for Audio Mode of Laboratory Instruction.

E. THOMAS HENKEL teaches physics major courses at Wagner College, and is developing new courses in physical science for non-majors and medical physics. He is chairman of the AAUP Negotiating Team, negotiating an initial contract with the Board of Trustees.

BERNADINE M. MELANSON, Assoc. Prof. of Education at Univ. of Saskatchewan, Regina Campus, has been studying at Stanford Univ. the past year and returned to Canada in June.

LEONARD SIMONS, Hostos College, CUNY, is working with underprivileged college students in health-related professions. He is setting up a remedial audio-tutorial program for anatomy nursing courses.

BERYL S. CRAIG of San Bernardino, Cal. has developed a laboratory-oriented chemistry course for college bound high school students plus a physical science course for non-college bound high schoolers.

HARVEY J. GOEHRING, JR. teaches undergraduate courses in tests and measurements, and graduate courses in 1) educational statistics and 2) research methods in education at Slippery Rock State College.

CLARENCE D. COLEMAN, promoted to Assoc. Prof. of Physical Science at Norfolk State College delivered a paper at the Univ. of Wisconsin entitled "The Synergism of Technology and Competency Based Teaching in a Multi-Cultural Society."

MICHAEL CONNELLY, Chairman of the Dept. of Curriculum, OISE in Toronto, is Director of the Patterns of Enquiry Project, a study of scientific enquiry for science curriculum.

LEO A. HOEFER, Wash. State Univ., is developing a media center for chemistry curricula.

FREDERIC E. HOFFMAN has received NIH monies each year since '69 to enrich the general biology program and to upgrade the medical technology program. He is co-ordinator of the audio-tutorial general biology program at Elizabethtown College, and also prof. of secondary ed. for the sciences.

PAUL DeHART HURD, Stanford Univ., serves as chairman of the Advisory Committee of the BSCS Human Sciences curriculum project. He received an honorary Dr. of Science from Drake University in May, 1974.

OAKLEY R. JENNINGS, Middle Tenn. State Univ., is instrumental in restructuring the program for non-science majors. He is also developing a more flexible and individualized science program for preparation of elementary teachers.

JERRY L. DUKES, teacher of biology and microbiology and Health Counselor at L.D. Brandeis High School, N.Y. is working on a doctorate at N.Y. Univ.

DWIGHT W. ELLIS, science teacher at Woodman Jr. High in Gardiner, Maine, also teaches elementary science methods at University of Maine - CED.

VINCENT D. MAHONEY teaches Elementary Science and Math Methods at Iowa Wesleyan College and is also director of Elementary Teacher Student Teaching. Under Bob Yager, he is a Science Consultant for Project Assist at the Univ. of Iowa.

NATIONAL ASSOCIATION FOR RESEARCH IN SCIENCE TEACHING
PLACEMENT INFORMATION SERVICE

EMPLOYMENT OPPORTUNITIES

POSITION AND RANK: _____

LOCATION: _____

QUALIFICATIONS: _____

JOB DESCRIPTION AND DUTIES: _____

SALARY: _____

STARTING DATE: _____

APPLY TO: _____

Please send this completed form to:

Dr. Marvin Druger
NARST Placement Coordinator
800 Biological Research Labs
Syracuse University
Syracuse, New York 13210

NEWS (continued)

H. DEAN JERNIGAN works with K-12 outdoor environmental ed. materials and high school science classroom instructional techniques. He was the 1974 recipient of the NABT outstanding biology teacher award for the state of Kansas.

HAROLD FRIEND is evaluating a new teacher education program at Queens College named A.D.E.M.-- Application and Development of Educational Models. Its basic premise is that education is a discipline based upon different teaching and learning models.

WALTER A. CORY, JR. is the Coordinator for the School of Science at Indiana Univ. which serves as liaison between the various science depts. and science education. His office will direct the Indiana Sci. Talent Search, the regional Science and Engineering Fair, the High School Science Student Institute. There will also be a state-wide program of visits by science faculty from several campuses of Indiana Univ.

SISTER VIRGINIA CHASAS coordinates the introductory course in biology at Catholic University, Puerto Rico and is developing an individualized instructional approach.

KEN ANDERSON, past president of NARST, has returned from Colombia, S.A., where he was a Fulbright-Hays Senior Scholar and consultant to the Colombia Institute For the Promotion of Higher Education. He spent two months in Bogota and other cities.

ALLEN D. WEAVER of No. 111. Univ., was director for two NSF Institutes last summer--one of 4 weeks for 40 junior high teachers in ISCS, and one for 50 elementary teachers with 3 weeks in SCIS and 3 weeks in ESS. All are to be followed by school year seminars.

EARL A. SARGENT, Director of Teacher Education at Univ. of Tulsa, was Program Chairman of the 1974 NSTA Convention. He is presently president of the Tulsa Phi Delta Kappa chapter.

KENNETH R. SLENTZ reports pilot results look favorable on a competency-based in-service program which will offer university credit at the Univ. of Manitoba.

GEORGE F. REED, whose primary interest is astronomy education for all ages, has been assessing the value of the planetarium in both the cognitive and affective domain.

DAVID R. STRONCK, Assoc. Prof. of Biological Sciences and Education at Wash. State Univ. is chairman of the Committee on Science Education at WSU, which includes representatives from Education, Science, Math, and Computer Science.

DENNIS R. DRISCOLL, Canberra (Australia) College of Advanced Educ., is co-director of the Australian Science Teacher Project (ASTEP) with Prof. P. J. Fensham (Monash Univ.). He teaches science curriculum and measurement and evaluation at the graduate levels.

JAMES V. O'CONNOR has completed the first year as Earth Science Education Specialist for the U.S. Geological Survey and will begin to concentrate on K-adult geology activities. Stress will be on urban applied earth science, especially on school grounds. Anyone interested in various levels of activities may write: Mail Stop 160, U.S.G.S.-MPES Program, National Center, Reston, VA. 22092.

ROBERT KARPLUS, U. of Cal., recently returned from a sabbatical to investigate logical-mathematical reasoning in seven countries. He also observed adaptations of SCIS in Italy, Hungary, Sweden and Denmark.

KENNETH UHLHORN is Director of Science Teaching at Indiana State Univ. and directed the first Jr. Science and Humanities Symposium in Indiana in '74. He serves on the State Science Advisory Committee and continues to study children's pictures of scientists in the U.S. and Europe.

GEORGE H. LOVE serves as assistant Commissioner for Basic Education for the Commonwealth of Penna., including Urban and Appalachian Education.

NEWS (continued)

LAMOINE L. MOTZ, director of science education, Oakland Schools, Michigan, coordinates K-12 programs and is author of the "Science and Scientists Attitude Inventory (1970)", an instrument to evaluate elementary and middle school students' attitudes toward science and scientists.

CLARK HUBLER, from Ohio Univ. at Portsmouth, has in press at Random House Science for Children due to be published in Sept. It is written for elementary and junior high levels.

GERALD L. ABEGG, coordinator of School Service and Teacher Training for Physical Science, moved to Boston University as part of the new Dept. of Science and Mathematics Education in the School of Ed.

DAVID REDFIELD has moved full time to ISIS high school curriculum development at Florida State in addition to his responsibilities in instructional design and development, and has retired from the co-directorship of ISCS.

ALLAN GUBRUD, Lane Community College, Eugene, Oregon, reports receiving two National Vocational Education Grants for conducting workshops for the improvement of Occupational Physics. He is developing a self-paced course in Physical Science Survey.

RAY QUINN teaches in the Dept. of Wildlife and Fisheries Science at Texas A and M, including courses on "Nature Centers," "Museums and Their Functions," "Field and Lab Methods" for graduates.

JOHN WESNEY, Greenwich (Conn.) High School, is developing curriculum in 1st-year and AP Physics while gathering research toward a Ph.D. at Cornell.

RITA W. PETERSON has completed the botanical illustrations for Trees of the Sierra Nevadas by P. V. Peterson, which is to be released this fall. She is presently writing a Thesaurus on language used in public schools and teaching at Calif. State Univ. at Hayward.

BEVERLY W. MILLER became the sixth president of the College of St. Benedict, St. Joseph, Minn. in July.

MORTON L. WOLFSON, of John Jay College, C.U.N.Y., is team-teaching toward the theme "The Urban Experience."

PHILIP G. BASHOOK, Univ. of Illinois College of Medicine, Center for Educational Development, teaches M.D.'s how to teach. He is involved in research in measuring physician's clinical performance which includes quality of care and using simulated situations of physician-patient encounters.

GENE M. DEADY is Coordinator of Elementary Teacher Preparation at Calif. State University, Chico. He recently completed two years on the Far West Regional Lab Executive Panel.

J. A. EASLEY, JR., spent 6 weeks this summer on school learning at the Univ. of Costa Rica and 5 weeks at Njala Univ. College in Sierra Leone, at a science teacher's workshop sponsored by the Science Education Programme for Africa. Dean of the Faculty of Education, Jesus Ugalde Viquez, was a science education student under FLETCHER WATSON.

JERRY G. HORN is coordinator of a developmental team and director of an NSF elementary science program at the Univ. of So. Dakota. He is co-director of Project TAPE which is designed to utilize public media and telephone communications for providing public awareness of ESS, SCIS and SAPA followed by consultation. Jerry was in Europe in May and June with the People-to-People science educators.

VICTOR D. MORRIS is Director of Program Development for the Physician's Assistant Training Program at Wake Forest Univ., Bowman Gray School of Medicine.

DONALD A. SNITGEN, No. Mich. Univ., is working on a feasibility study to develop an Upper Peninsula Regional Environmental Education Center, an off-campus wilderness facility. It is proposed for the Greenwood Reservoir and funded by the Cleveland Cliffs Iron Co. Don has been appointed Region I Director by the Mich. Environmental Educ. Assn. and Conference Director for the Regional Mich. Sci. Teachers Assn. Sept. 27-28 at Northern Michigan Univ.

RALPH P. FRAZIER has been named director of the School of Science, Mathematics and Technology at Southwest Minn. State College, Marshall, Minn.

NEWS (continued)

RAGY G. MITIAS sends a compliment to Dr. Paul E. Bell, sec.-treas. of NARST, for his efficiency and prompt correspondence on various organizational matters. "As a member of NARST, I wish to thank Dr. Bell for his efforts and contribution to our organization." Mitias also suggests that a fee for the Journal be added to the membership fee. This may allow more frequent or larger volume publication of the Journal.

BETTE DEL GIORNO is co-author of Environmental Activities Handbook for Teachers, soon to be published by Parker Publishing Co., which is a sourcebook for upper elementary grades through college level. In Fairfield, Conn., she is science consultant K-12 and also teaches graduate courses at Fairfield University.

MARJORIE H. GARDNER recently returned to U. of Maryland after six months as a Fullbright Senior Scholar in Australia followed by six months as a UNESCO consultant in Bangkok, working with the Institute for the promotion of Science Teaching and Technology.

GERALD J. GARNER is Instructional Specialist, Science, Instructional Planning Division, Los Angeles City Schools. The job description includes planning, publications, obtaining funds, and responsibility for science curriculum and instructional resources. He looks forward to NSTA-NARST meetings in Los Angeles in March, 1975.

JOSEPH JACOBS is currently planning and writing a science course designed for non-science majors at John Jay College of Criminal Justice (CUNY).

LINDA JONES is active in the pedagogy of metric measurement giving conference presentations and a new 3-unit course for teachers. She continues implementing ESS and preservice teacher education in science and math.

CARL V. RAMEY moved to Morehead State Univ. last year as assistant prof. of science.

BERNARD F. GROSS holds a joint appointment as Chairman, Teacher Ed. Dept., St. John Fisher College, and Director of Science, Rochester City School District.

HAROLD DURST is newly appointed Dean of the School of Graduate and Professional Studies at Emporia Kansas State.

GEORGE T. LADD, Boston College, has been given a research grant from the Mass. Advisory Council on Education to 1) develop a module of instruments and manuals used in monitoring the implementation of one or more of the NSF-sponsored elementary science programs and 2) train teams of administrators and elementary teachers from districts in Mass. to use the materials with their own principals, teachers and students.

RICHARD M. REIS is the new executive officer and editor of Mercury for the Astronomical Society of the Pacific. This entails a move from St. John's, Newfoundland to Daly City, Calif.

SHERMAN L. McCLURE is Science Division Chairman at Mt. Hood Community College, Gresham, Oregon.

JOHN E. LUTZ serves as Assistant Executive Director for Research, Planning and Evaluation for the Central Susquehanna Intermediate Unit in Lewisburg, PA, and is also a Lecturer in Education at Bucknell University.

ALAN J. McCORMACK is now at the Univ. of B.C. after completing a year's leave in which he coordinated the Outdoor Biology Instructional Strategies (OBIS) program at the Lawrence Hall of Science, Berkeley, Cal. He was named the 1974 1st place winner of the NSTA-OHAUS Award for Innovations in College Teaching.

MERRITT E. KIMBALL serves as Program Management Education for Ford Foundation's West Africa Field Office, with some time devoted to curriculum development at the U. of Lagos. An Education Review Conference was held in Sierra Leone, and a UNICEF-SEPA Conference on Environmental Education is planned in Nairobi, Kenya in June. Kimball will remain in Lagos through the next school year.

GEORGE MORIBER, Flushing, N.Y., has just published a textbook for liberal arts students entitled Environmental Science, published by Allyn and Bacon.

HAROLD S. SPIELMAN will step down from chairman of the Dept. of Secondary Educ. at CUNY on Sept. 1 in order to resume full time teaching of science and science education.

NEWS (continued)

THOMAS P. FRASER, former president of IARST, is now an Educational Consultant and one of 5 authors of Concepts of Science (Brandwein, Cooper, Blackwood, Hone, Fraser), 3rd and 4th editions.

LEONARD I. KINDLER has moved from teaching chemistry in New York City to Research Assistant, the School Dist. of Philadelphia, where he is involved in the evaluation of various federally-funded programs currently in progress.

SAMUEL N. POSTLETHWAIT is producing minicourses for a college freshman biology course. Each minicourse is based on a self-instructional program in the audiotutorial format and will be published by Saunder's Publishing Co.

THOMAS E. SMITH, Science Coordinator 6-12 in Holmdel, N.J., is developing a coordinated program with 4 year options for all secondary school students. An evaluation system, presently in effect, features quantitative measurement in Commitment, Comprehension, Craftsmanship, Creativity, and Cooperation.

LAWRENCE WILLIAMS plans an innovative program for educationally deprived and average students in classes of heterogeneous IQ's. Many related subjects are divided into innovative approaches to grading students' performances, inter-disciplinary skills, and a multifaceted approach to achievement and teaching strategies.

THOMAS W. RHOADES will be Coordinator of Research for Ann Arundel County, Md., where there are 7,000 staff members and 80,000 student.

JOHN S. SHRADER, Central Wash. State College, is District XI Representative for NSTA 1973-75, and president of the Northwest Scientific Assn. (Wash., Ore., Ida., Mont., B.C.)

T. HANDLEY DIEHL recently completed a lab manual for a general education course, and a film strip for science methods which has an accompanying cassette dialogue.

WALTER A. FARMER is co-directing a prototype CBTE program in secondary school science and math which is now in its 2nd year of operation at SUNY-Albany, New York.

DOROTHY M. ANDREWS, chairman of the Science Dept., The Bromfield School, Harvard, Mass. is developing environmental education material using local resources and also running experiments using the honeybee as the experimental animal. She is conducting research for a doctoral dissertation at Boston Univ.

HERMAN C. KRANZER, U. of W. Florida, recently completed the "Project to Plan, Conduct and Evaluate the Training of Substitute Teachers for Environmental Education Competencies," which was funded by the Florida Dept. of Education.

OON CHYE YEOH is a full faculty member in pedagogy, U. of Malaya, including undergraduate and postgraduate programs in Curriculum and Instruction in Science Teaching, Instructional Technology and Media Utilization. He is also a consultant to the South-east Asia Sci. and Math. Experiment (SEASAME), based in RECSAM (Regional Educ. Center for Science and Math), Malaysia.

JOHN J. SMITH is an assoc. prof. of Education at Goshen College in Indiana after moving from Memorial Univ. of Nfld.

JAMES T. ROBINSON is working on the 2nd year development and testing on the 3-year Human Sciences program of the BSCS in Boulder, Colo.

C. B. OGUNTONADE is a lecturer in physics at the U. of Ibadan and investigating sources of resistant to the application of innovative physics teaching methods in high schools of Western State, Nigeria. He is chairman of the physics section of Science Teachers Assn. of Nigeria (STAN) and a member of the Governing Council. He is chairman of Science Curriculum Development Panel for Nigerian High Schools, and chairman of the Science Syllabus panel for teacher training in preparation for Universal Primary Education in Nigeria. He is engaged in an on-going evaluation of the special Primary Science Teachers' Program at the Univ. of Lagos.

BEN A. SMITH of LaGrange, Ill. was selected as outstanding Secondary Educator for 1974.

WARREN M. DAVIS has just ended an academic year as visiting professor at Intet American University, San Juan, Puerto Rico.

NEWS (continued)

MELTON E. GOLMON has been named Director of Medical Education at Northwestern Univ. Medical School, Evanston.

MARIE ZUK and MARYANN LIIKALA are compiling a list of recommended materials for a new curriculum which incorporates Human Anatomy, Social and Emotional Problems including Drugs, Safety, Environmental and Community Health. They ask members of NARST to correspond with them at Carman School District, Flint, Mich.

TIMOTHY L. SCHAAP, Mt. Prospect, Ill., is on partial sabbatical from High School Dist. 214 to complete a doctorate in Secondary Ed. with emphasis on research and statistics at No. Illinois Univ.

PINCHAS TAMIR, Jerusalem, is head of the High School Biology Project, co-author of Research in the Natural Sciences in the Second Handbook of Research on Teaching. Research interests include curriculum evaluation, cognitive preferences, instruction, lab work, AT development, innovative programs in biology and in teacher education.

WILBUR KIMBROUGH of Pittsburgh is applying physics to some new degree programs in the allied health sciences, e.g., Respiratory Therapy, Emergency Medical Technology and Anesthesiology. The course will include the 3 types of students, each group working independently of the other 2, with an individualized, self-paced, multi-media approach. Fifteen modules will be completed for the 3 areas this fall.

JOHN R. MAYOR has moved from Director of Education, AAAS to Asst. Director of Research, Div. of Human and Community Resources, at Univ. of Maryland.

JACK MEGENITY is a member of the Curriculum and Instruction Dept. of Georgia State Univ. in Atlanta.

WERNER E. MULLER, JR., is an assoc. prof. of Science Ed. at New Mexico Highlands Univ., Las Vegas.

GEORGE MATTHIAS, Montrose, NY, continues to develop and teach an individualized Earth Science Program for secondary high school students. He is a staff member for summer workshops for Earth Science teachers who are learning how to develop individualized programs and audio-tutorial materials appropriate to this mode of instruction.

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LOST MEMBERS

- Eugene Abraham, Philadelphia, PA 19122
- Abu Hassen Bin Ali, Tallahassee, FL
- James Arnesen, Iowa City, Iowa 32240
- Frederick K. Ault, Muncie, IN 47303
- Arnold Bomgaars, Vermillion, SD 57069
- Betty A. Bradley, Abilene, TX 79605
- Donald J. Brown, Peoria, IL 61614
- Leon W. Goutevniier, Bayside, NY 11361
- David Lee Groves, Univ. Park, PA 16802
- Makram I. Himaya, Nashville, TN 37210
- Linda Anne Jackson, Ithaca, NY
- Jimmy R. Jenkins, Elizabeth City, NC
- Louis C. Konetski, Baltimore, MD 21206
- Wilfred J. Lescarbeau, Houston, TX 77017

- Roger D. Lewis, Magnolia, AR 71753
- Charles W. Lowe, Rochester, NY 14620
- Alan J. McCormack, Vancouver, B.C.
- Richard E. Mignerey, Lansing, MI 48917
- Joseph Mussbaum, Jerusalem, Israel
- Ronald Raven, Buffalo, NY 14223
- Arthur E. Rondeau, White Plains, NY 10602
- Robert H. Roy, Madison, WI 53705
- Silas Schriener, Houston, TX 77004
- Edward L. Smith, E.Lansing, Mich. 48824
- W. R. Teeters, St. Louis, MO 63122
- Carl D. Terwilliger, Mt. Pleasant, MI 48858
- Richard E. Venable, Bronx, NY 10457
- G. Richard Zubulake, Ypsilanti, MI 48197

Mail has been returned from these persons. If you have a forwarding address, please write:

Dr. Paul E. Bell
179 Chambers Building
The Pennsylvania State University
University Park, PA 16802

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CALL FOR PROPOSALS 1975 ANNUAL MEETING

This announcement is the official call for proposals for the 48th Annual Meeting to be held March 17-19, 1975 at the Hilton Hotel in Los Angeles.

The 1975 program will follow in general the format used for last year's meeting. The follow-up study of the 1974 meeting produced strong endorsement for the new format. Accordingly, the program will include sessions such as symposia, invited talks, paper sessions, discussion papers, and "an hour with" sessions. Papers, symposia, discussion papers, and other activities will be considered for inclusion in the program if they are received before October 20, 1974 and submitted in the appropriate form. Other researchers may be contacted for invitational contributions at a later date.

All NARST members are invited to submit proposals for consideration by the Program Committee. Your proposal can be for any of the following five types of sessions.

1. CONTRIBUTED PAPERS - Sessions devoted to contributed papers provide individual members with an opportunity to share the results of their individual research efforts with other members. Concurrent sessions where such Contributed Papers can be scheduled represent a major part of the NARST meetings. Generally such papers are restricted to a fifteen to twenty minute presentation which includes any audience questioning as well.

2. PAPER SETS - Several related studies originating from a common research center or line of research can be structured as a set of from three to six separate but related reports. Such a grouping of papers often allows for common elements of design or approach to be presented once instead of several times. A paper set grouping can also allow for a division of a single report which represents a major research effort in terms of time, number of workers, and/or geography.

3. DISCUSSION PAPERS - Some research reports merit more time and consideration by the membership than do others. Discussion papers represent intriguing, exciting, and perhaps controversial reports of research submitted by NARST members. A whole time block on the program will be scheduled where members in small numbers can carefully analyze and discuss the paper. There will be no "presentation" concerning the paper. Instead copies of the paper will be available at the Registration Table. Members will secure a copy of the paper that interests them, read it, and attend the particular session ready to "discuss" the issues, the analyses, the results, and the interpretations.

4. SYMPOSIA - Areas of current research or research needs should be identified and members of the symposium asked to prepare papers addressing themselves to defined issues. Symposia should include persons with varying backgrounds, positions, and research interests. In addition to presentations concerning research in a given area, interaction among the symposium presentors, other discussants, and the audience is anticipated. Varying views, approaches, data reports, and data interpretation are desirable features for symposia.

5. PANELS - There are many debatable issues in science education and panels can be constituted based on the positions taken by members. Such panels provide a mechanism for debating issues and involving interested members in such discussions of views.

An individual is limited to the presentation of one paper, although this individual may be permitted to appear on the program one additional time as either the second author of a paper or as a member of a symposium or panel.

Proposals must be submitted on the enclosed forms. They will be rated anonymously by members of the Program Committee. The criteria employed will be: (1) relevance to the objectives of NARST, (2) general quality, and (3) clarity of expression. Proposals must consist of a cover page (attached) and three copies of a 500-word (maximum) summary of the study. The summaries will be published prior to the meeting by the ERIC Center at Ohio State University.

The summary of a research paper should be organized under the following headings:

- Objectives of the inquiry
- Methodology and design
- Data and its sources
- Results and conclusions
- Significance

Symposia proposals should be submitted as a package listing participants on the cover sheet. The summary should address itself to the individual presentations and to the thread that ties the symposium papers together. The total summary including summaries of individual presentations, must be limited to a maximum of 500 words.

In the case of paper sets, a cover sheet and summary should be submitted for each paper in the set.

Please enclose two self-addressed, stamped envelopes for prompt acknowledgment of proposal receipt and for notification of the decision of the Program Committee.

All proposals should be mailed by October 20, 1974 to the program chairman:

Ronald D. Anderson
 School of Education
 University of Colorado
 Boulder, Colorado 80302

Here is a checklist of the materials to be submitted:

- one copy of cover sheet
- three copies of a 500 word (maximum) summary (without author justification)
- two self-addressed stamped envelopes

COVER SHEET
FOR PAPER OR SYMPOSIUM PROPOSAL
NARST-1975

1. Paper Title: _____

2. Author's Name*: _____
Last First Initial

*Give here the name of person who will make the presentation.

Affiliation: _____ Phone: _____

Mailing Address _____

3. If a symposium or panel proposal, list other participants and institutional affiliations or in the case of a contributed paper, list additional authors.

4. ERIC Classification Number (for committee use - see attached list): _____

5. Do you wish to have the use of an overhead projector? yes no
(Unfortunately we are limited to providing overhead projectors. If you need other types of equipment you will need to make your own arrangements.)

6. This paper should be considered for the following program category:
(See attached definitions of sessions.)

- a. Contributed Paper
- b. Paper Set
- c. Symposium
- d. Panel

7. In the case of a contributed paper, would you be willing to present it as a discussion paper if requested by the program committee? yes no
(If you would like the program committee to give special consideration to the possibility of using your paper as a discussion paper, it would be helpful if you would submit a copy of the entire paper along with this cover sheet and your summary.)

8. Are you a NARST member? yes no

I hereby certify that this paper has not been submitted for publication, and if this paper is accepted and placed on the program, I promise to appear and deliver it unless prevented by conditions beyond my control.

Signature Date: _____

Please return the following: This cover sheet as completed; 500-word summary (3 copies, without author identification); two self-addressed, stamped envelopes

ERIC CLASSIFICATION NUMBERS

- 01 Administration and Supervision
- 02 Curriculum Development
- 03 Educational Programs
- 04 Evaluation
- 05 Science Facilities
- 06 Science Equipment and Material
- 07 Educational Media
- 08 Learning Theory and Processes
- 09 Educational Objectives
- 10 Instructional Procedures
- 11 Teacher Education
- 12 Teacher Characteristics
- 13 Student Characteristics
- 14 Research Methodology
- 15 Guidance and Counseling
- 16 Legislative Acts and Reports
- 17 Instructional Materials
- 18 Teacher Resource Materials
- 19 Academic Achievement
- 20 Science and Society
- 21 History of Science Education
- 22 General Studies and Surveys
- 23 Science History
- 24 Schedules
- 25 International Education
- 26 Information Science
- 27 Behavior
- 28 Environmental Education
- 29 Instrumentation and Test Construction

Note: Classify all questionable elementary school science as general science.

PUBLICATIONS RECEIVED

- AAR, Affirmative Action Register--A Journal which attempts to be helpful in the following situations: "Recognizing the difficulty encountered by employers in reaching qualified minority and female candidates effectively, to comply with Federal Guidelines regarding equal employment opportunity, The Affirmative Action Register was established." For further information contact: AAR, 10 South Brentwood Blvd., St. Louis, Missouri 63105.
- SM, Sales Meetings/The Magazine for Successful Meetings. Do you have to plan for a Convention? Contact SM Executive and Editorial Officers, 1422 Chestnut Street, Philadelphia, PA 19102 for their journal dated August 1974.
- KATS, Kansas Association of Teachers of Science Newsletter. Full of good ideas. Contact Stanley Martin, 1601 Van Buren, Topeka, Kansas 66612 for further information.
- SPECTRUM, the newsletter of the Illinois Science Teachers Association, contains items of interest to science teachers. Address: ISTA, Moline High School, Moline, Illinois 61265.
- THE ENVIRONMENTAL KEY IS . . . a newsletter of the Fox Chapel Area School District, 611 Field Club Road, Pittsburgh, PA 15238, contains many useful items related to Environmental and Outdoor Education.