ASSOCIATION FOR THE EDUCATION OF TEACHERS OF SCIENCE

Newsletter Date: Fall 2003 Volume 38 Issue 1

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President's Newsletter Message Where Do We Go Next?

Herb Brunkhorst, AETS President

My efforts this year have been focused on trying to help us as an organization rethink who we are and what we stand for. The timing of such a conversation has increased in importance considering the various national policy issues that have inundated education these past two years. It is an appropriate time for AETS to consider a new mission and name change as we move into the 21st century. The upcoming U.S. Department of Education Science Education Summit scheduled for March 16, 2004 has brought to the fore the urgency and timeliness of these proposals.

• We have asked the members of our organizations to help fashion a research matrix that might serve as a template for each of us and all of us.

I hope that through our AETS Regional meetings, you have felt a part of this process. I asked Board members present at those meetings to share an effort currently underway by a working group of AETS, NSTA, NARST and NSELA members that begins to identify broad research questions that we can address as a community of science educators in an effort to take a proactive stance in setting a national science education research agenda. We have asked the members of our organizations to help fashion a research matrix that might serve as a template for each of us and all of us. Such a matrix can help an organization like AETS focus on research questions that members across the country can contribute to and thereby begin to move toward the type of data which the federal agencies are using as a standard...namely larger "randomized" samples from which generalizations are more likely to be drawn. This is the kind of data that federal agencies are demanding and that we as professional organizations have not fully exploited within our membership. The Science Education Summit provides the opportunity for our organizations to reexamine the way we think about the scholarship in our field of expertise.

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Julie has been instrumental in ushering through iterations of the Mission statement so that by the national meeting in Nashville we might have a consensus document. Related to the Mission statement is the consideration to change our name so that it is succinct and communicates to those outside our organization who we are and what we do. I suggest we maintain the word Association since it places us at the beginning of the alphabet listings. However, we need to shorten the remaining portion to something like Science Teacher Education or Educators.

I close by thanking the membership for the privilege of serving as your president and hope that the suggestions I have made are taken in the spirit of collegiality and moving our organization to the next level. That is, taking our rightful place at the table in the national science education dialogue. With my tenure as president almost up, I would like to take the opportunity to thank Julie Luft, John Penick and the AETS Board members for their collegiality and support throughout this year, and welcome aboard our new AETS Newsletter Editor, Merton Glass at Northern Arizona University, Yuma Campus. I look forward to seeing all of you at our Nashville meeting, on January 8-10, 2004. We look forward to a record attendance and the collegial interaction, frivolity, and shared purpose that we have come to expect from our organization's meetings. Wishing everyone a healthy and happy holiday season. Herb

Executive Summary
Science Education Summit Working Group (9/26-9/28/03 meeting)

In anticipation of an announced date by the White House for a Science Education Summit, the National Science Teachers Association mobilized a working group from its Teacher Education and Research Divisions and AETS and NARST to begin a proactive response to the U.S. Department of Education. On September 27 2003, the White House announced that the Science Education Summit would be held on Tuesday, March 16, 2004 in Washington D.C during Science and Technology Week.

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Executive Summary Cont.

This working committee represents the beginning of an ongoing and growing what is hoped to become a collaborative effort by all science education and science organizations who wish to contribute to developing a national science education research agenda. Developing a coherent agenda enables us to establish evidence-based science education research that can inform the U.S. Department of Education, and drive the funding priorities. As those who attended the first Mathematics Education Summit last year quickly surmised, the U.S. Department of Education wishes to set the agenda for all groups. This joint science education effort (our collaborative research agenda) will preempt a similar occurrence with science education. Unless we as a science education community speak with a more unified voice, other groups and agencies will speak for us.

The matrix included with this Executive Summary is a first attempt to structure a science education agenda based on the two major themes of Teacher Education and the Nature of the Learner. The matrix is the result of the working group's goal to make science education research more visible to those outside our community including legislators and federal agencies. Please note that the matrix is an evolving document, whose purpose is to serve as a structure for asking evidence-based research questions as well as providing the opportunity for each organization to target research questions and areas appropriate to their expertise. By articulating clearly our research agenda through the matrix to federal officials and legislators, we will have a major impact on science education policy in the U.S.

We invite classroom teachers of science, science teacher educators, science educator researchers, science supervisors, administrators, and science faculty interested in science education issues to participate in this vital endeavor. We hope you will discuss the research matrix with colleagues and contribute to its evolution in identifying areas missing and/or researchable questions. Please forward your ideas and suggestions to the respective leaders of your organization by **October 30, 2003**. Your input will be included in a second iteration of the matrix. We hope to share the revised matrix with legislators, U.S. Department of Education leadership, and science leaders at the Council of Scientific Society Presidents at their November 22-25, 2003 meeting. The agenda for the Science Education Summit is being planned now. We must step up to the plate as one voice so that we can influence that agenda. Thank you for your participation. We will keep you informed on the status of this work.

The Research Matrix

Is on the following two pages

Draft for Research Matrix:

Targeted priorities are Teacher Education and the Nature of Learners

		ı	ı	1	ı	1	ı	1	1	ı	ı	ı	1	ı	
Divs. Grps															
In- formlComm.															
Prof. Org's & Assoc's															
SMET faculty, IHE leaders															
Federal & Inter- Public natl Agencies															
Tchr EductrSchool Admin/ Leaders															
Tchrs															
St's															
or h	Curric (IMD)	Content Knowlg	Ped. Cont. knowlg.	Affect. Do- main	Roles of	Culture of	Integtn of SMET	Science Literacy & Science apprec.	Skills (Crit TS)	Assmt	Achmt	Quality	Learning	PD	Techlgy

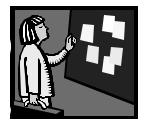
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Instruct/ Learning Stratg's	Standards	Tchr Prof Continu	Best Prac- tices	Other:	

Examples of Overarching research questions: for the matrix

- To what extent does a) science subject knowledge, b) science pedagogical content knowledge contribute to the effectiveness of a teacher?
- To what extent do field experiences prior to certification contribute to the effectiveness of a teacher?
- What kinds of "alternative certification" programs contribute to high percentages of effective new teachers? To increased retention of new teachers?
- What kinds of teacher preparation strategies are likely to increase the effectiveness of new teachers in low-performing schools?
- What are the relationships between setting more stringent entrance requirements to teacher preparation programs and effectiveness of new teacher candidates and new teachers?
- Does accreditation of teacher preparation programs contribute to the effectiveness of their graduates and subsequent retention in science teaching?
- What do people need to know (science) to function in the 'real world'?
- What knowledge do we need to function as a) science lit citizen? b) future SMET professionals?
- How do students come to understand Biology, Physics, Earth Science, Chemistry?
- What is the relative impact of science knowledge, skills, disciplines, etc?
- How do we produce people with knowledge/skills/ dispositions? do teachers need to produce such students?
- What types of strategies/classroom climate produces appropriate instructional materials? students with above attributes (i.e. school culture)?
- How are the needs of <u>all students</u> met through effective science teaching & learning?
- How does curriculum affect student learning?
- How do we make science education research visible?

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The Announcements

GENERAL BIOLOGY/SCIENCE EDUCATION.

Elon University seeks applicants for a permanent continuing track position at the Assistant Professor level, starting in August 2004. Ph.D. in a biological science or biological science education required, along with excellence in teaching and scholarship. The successful candidate will be a broadly trained biologist who has demonstrated research expertise in undergraduate pedagogy, is committed to teaching non-majors, and is willing to teach in Elon's interdisciplinary general studies program. Teaching responsibilities include Topics in General Biology and Science Without Borders (an integrated science course). Elon is a dynamic private, co-educational, comprehensive institution that is a national model for actively engaging faculty and students in teaching and learning. To learn more about Elon, please visit our Web site at www.elon.edu. Review of applications will begin December 1, 2003, and continue until position is filled. Applications must be received by January 1, 2004, to be assured of consideration. Send letter of application, curriculum vitae, statement of teaching philosophy and scholarly interests, copies of graduation transcripts, and three letters of recommendation to Dr. Robert Vick, 2625 Campus Box, Elon University, Elon, NC, 27244-2010. Candidates from under-represented groups are encouraged to apply. EEOE

Also ... SW-AETS Annual Conference

The SW-AETS annual conference will be held at Southwestern University in Georgetown, Texas February 27-29, 2004.

Proposal Deadline: Saturday, November 15, 2003.

Preliminary Conference Schedule

Friday 10:00 am-5:00 pm: Pre-conference Session: Project WILD Facilitator's Training

Friday: 5:00 pm-7:30 pm: Reception, poster session, and registration. Friday: 8:00 pm-10:00 pm: Star gazing at the Fountainwood Observatory

Saturday 8:00 am- 12:00 noon: Concurrent Sessions

Saturday 12:00 noon –2:00 pm: Luncheon, keynote speech, and SW-AETS business meeting

Saturday 2:00 pm – 5:00 pm: Concurrent Sessions

Saturday Evening: Social activity TBD

Sunday 9:00 am-12:00 noon: Concurrent Sessions

For more information about the SW-AETS 2004 annual conference and proposal form go to:

http://www.southwestern.edu/~kamenm/swaets/swaetsconference.htm

or contact

Michael Kamen SW-AETS President Elect kamenm@southwestern.edu (512) 863-1948 Volume 38 Issue 1 Page 7

CITE Journal

Contemporary Issues in Technology and Teacher Education Journal (CITE Journal) (http://www.citejournal.org) is a quarterly, online, peer-reviewed journal, established and jointly sponsored by five professional associations, including AETS. AETS has sole responsibility for editorial review of articles in the CITE Journal Science Section. The current issue, Volume 3, Issue 2 features "The Environmental Thematic Method Block: A Model for Technology" by Slekar, LaChance, Klein and Klein.

The journal includes several unique features of interest to AETS members besides the science section, which publishes research on innovative uses of technologies in science teacher education. A Commentary feature encourages short responses to articles and ongoing peer-reviewed dialogues. The online medium also permits authors to demonstrate various innovative technologies they are describing in the article, such as video or simulations. Cathy Loving and Carol Stuessy are co-editors and welcome your online submissions.

Applications now being sought for:

Proceedings Editor for the Annual Conference of the Association for the Education of Teachers of Science

The Association for the Education of Teachers of Science (AETS) is seeking applications for an Editor of the annual conference proceedings. The duration of appointment is negotiable and will begin as soon as the appointment is made.

The AETS publications committee is open to using venues other than ERIC or continuing with ERIC. We are seeking creative ways to archive our documents and make them available to the membership.

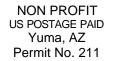
We prefer that applicants for the position have experience in publishing, reviewing documents, word processing, and electronic publications. The editor is expected to be an active member and in good standing in AETS. In addition, the editor will be expected to serve on the AETS Publications Committee.

Applicants should submit four copies or one electronic submission of a letter for the position, a vitae, and a letter of support from the Department Head or Dean by November 30, 2003 to the Chair of the Search Committee:

Barbara S. Spector spector@tempest.coedu.usf.edu

or

Meta Van Sickle vansicklem@cofc.edu





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AETS Promoting Leadership in, and support for those involved in professional development of teachers of science

AETS Newsletter

Published four times a year by the Association of the Education of Teachers of Science.

Issue It	ems due by
Fall	Oct. 15
Winter	Feb. 15
Spring	May 15
Summer	Aug. 15

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Education Section of the journal Science Education.

If you are interested in serving as a reviewer, please send your resume to Deborah J. Trumbull, 419 Kennedy Hall, Cornell University, Ithaca, NY 14850

OR to djt2@cornell.edu

Reviewers receive from 6-8 manuscripts a year for review, using the on-line review

system.

Reviewers serve for 3 year terms.

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