In my two recent messages to our membership, I suggested we focus on a possible name change to better communicate who we are, and in my last message I suggested we focus on looking forward and thinking about what we want to be known for.

I recently had the opportunity to attend the NSTA Summer Board meeting and a meeting of the National Research Council’s Mathematics, Science Partnerships (MSP) Steering Committee of which I am a member. As some of you know, the National Science Foundation is requiring that MSP grant recipients and those applying for future MSP grants emphasize material in several of the recent NRC reports especially *How People Learn*. For those unfamiliar with this report, it emphasizes three umbrella principles regarding how all people learn regardless of age. These principles are: 1) learners come to the classroom with preconceptions about how the world works, 2) learners must have a deep foundation of factual knowledge that allows them to put ideas in the context of a conceptual framework, and organize knowledge in ways that facilitate retrieval and application, and 3) learners, using a metacognitive approach toward instruction, can take control of their learning by defining their own learning goals and monitoring their progress in achieving them. These three core learning principles, simple though they seem, have profound implications for the enterprise of teaching and teacher preparation. Evidence from research indicates that when these three principles are incorporated into teaching, student achievement improves.

*unless we focus on what we claim to be about, we may either quickly or gradually become irrelevant.*

(continued on page 2)
Dear AETS Member,

Included in this issue of the AETS Newsletter is ELECTION MATERIAL.

Candidates for AETS President-elect; Director-at-large; and Elections Committee; present their Position Statements on pages 5 through 9. Position statements can also be found at the AETS website on the elections 2004 link (http://TheAETS.org)

This year the Elections Committee has provided two options for registering your vote—please choose ONE. Either:

1) Complete the form on the following page and send it to the address on the reverse side, OR

2) Vote on-line at TheAETS.org. Click on the Elections link and sign in using your last name and the i.d. number printed on this newsletter’s mailing label.

Thank you!

President's Message (cont.)

At the recent summer board meeting of NSTA, it was suggested that AETS, NARST and NSTA work closely together on an ambitious research agenda that might involve a conference on evidence-based research in science education and a response to the upcoming science education summit. As I thought about the NRC principles, it occurred to me that there was a confluence of energy that could help focus the efforts of AETS in filling a niche in the national science education agenda. What if we as an organization embraced the three principles regarding how people learn, and use these principles to focus and report on a research agenda regarding science teacher education in this country. This would not preclude those areas of research in which each of us currently participates, but rather would provide focus to establish an identifiable evidence-based body of knowledge about the core principles of how teachers learn as they move from novice to expert. In many cases some of this information is already being gathered by several members of AETS, however, what if AETS could speak as one voice! Such an approach might also interest our colleagues in the sciences who are becoming more involved in science teacher preparation, especially as it involves principle #2.

A focused evidence-based research agenda could provide AETS with a place at the “table” when issues of science teacher preparation, induction, and professional development arise. With the U.S. Department of Education’s “Summit on Science Education” being proposed for next March, it is imperative that AETS be an invitee and major player. I feel that AETS as an organization could benefit from such a focused research agenda. The three principles of how people learn can provide the matrix for such an agenda. I encourage all of us at our upcoming district meetings to discuss these possibilities, for unless we focus on what we claim to be about, we may either quickly or gradually become irrelevant. HB
AETS Ballot for 2004 Offices

President Elect
Select one of the following:

_______ Randy McGinnis  _______ Patricia Simmons

Director at Large
Select two of the following:

_______ Caroline Beller  _______ David Crowther
_______ Mike Clough  _______ Warren DiBiase
_______ Hedy Moscovici

Elections Committee
Select three of the following:

_______ Michael Beeth  _______ Marsha Fetters
_______ Pamela Fraser-Abder  _______ Kevin Finson
_______ Eileen Carlton Parsons  _______ Jeff Weld

Member Name (Please print.) _______________________________________________________

Member Signature ______________________________________________________________

(Names and signatures will be cut off before votes are tallied.)
AETS Ballot
Gary F. Varrella, Ph.D.
George Mason University
Graduate School of Education - MS 4B3
4400 University Dr.
Fairfax, VA 22030-4444
Candidates for AETS President-elect (2)

J. Randy McGinnis, Candidate for AETS President-elect 2004

I am honored to be a candidate for AETS President Elect 2004. During the last 10 years I have had the pleasure of serving on a broad range of our associations’ standing and ad hoc committees. In addition, and of particular relevance for this office, I served recently on the AETS Board of Directors (1999-2002) as a Director- at-Large. In that capacity I became very familiar with the issues currently impacting our association. As a Director-at-Large, I had the pleasure of chairing the Membership Committee and the Awards Committee. I enjoyed working in a positive and forward thinking manner with my AETS colleagues to carry out the necessary committee responsibilities of our association. In addition, I was proud to represent AETS to outside audiences.

If elected to serve as AETS President-elect, I will work to:
• Maintain AETS as a welcoming, nurturing, and collegial professional community;
• Seek and implement innovative ways for AETS members to share their ideas, thoughts, and hopes among each other and to other audiences interested in our profession;
• Ensure that AETS’s collective expertise is acknowledged and utilized when the topic is the education of teachers of science (formal and informal domains).

Professional Background
I have been a science educator for 23 years. I have taught science (K-16), worked as a science teacher educator (teacher preparation and beyond), and conducted research (oftentimes on my own practice). I hold a B.S. in Geology/Philosophy, two masters degrees in Science Education from Teachers College, Columbia University, and a Ph.D. from the University of Georgia. I am a faculty member in the Science Teaching Center, University of Maryland, College Park. For additional information please visit: http://www.education.umd.edu/EDCI/science (select McGinnis).

Patricia Simmons, Candidate for AETS President-elect 2004

I am honored to be asked to run for President, having seen AETS grow dramatically (serving as co-chair of the first independent conference to last year’s conference). We are in a time of critical need for science teacher education. Most importantly for AETS, we must implement proactive short-term and long-term agendas and action plans for improving science teacher education on local, national, and international levels. As a teacher education community, we must develop our community-building skills to assist all stakeholders. Among the major emphases I will address are:
• listening to and including the concerns of preservice/inservice teachers and other stakeholders about science teacher education;
• integrating and informing science teacher education practices and programs with research (Research Informed Practice);
• continuing the challenging dialogue and critical discourse about lasting reform efforts and their effects on science teacher education; and
• working more proactively with a wider variety of constituents on policy issues (AETS should be the lead organization and driving force for policy related to science teacher education).

We, as AETS members, must have mechanisms for continuing our dialogue on meaningful reform in science teacher education. However, we must also build bridges to members outside of our organization if we are to truly make a difference in science teacher education.
Candidates for AETS Director at Large (5)

Caroline Beller, candidate for Director at Large

As an organization, AETS has provided a venue for learning about our profession and the current ideas in science teacher education which will enable me to grow as a professional. The members have been mentors, advisors, and friends who have enriched my life and career in many ways. My involvement in AETS started as a volunteer for the registration committee in 1994. I have continued to serve in some capacity on this committee since. In addition, I served on the program committee for the Charlotte, NC meeting in 2002 and am serving as chair of the Pre-conference Workshop Committee for the upcoming meeting in Nashville, TN in January 2004. I also had the privilege of serving on the Elections Committee both as a member and as chair. This experience provided an opportunity to work with the leaders of our organization and to become familiar with the structure of the organization and its goals and purpose.

Currently, I am an assistant professor at Oklahoma State University specializing in K-12 science education. As an active member of AETS, it would be an honor to serve as director at large for the Board of Directors of our organization.

Michael Clough, candidate for Director at Large

For some time education research and teacher education programs have faced a crisis in public confidence. Legislatures, the general public, and many teachers question the value of teacher preparation and believe that education research is irrelevant to practice. These beliefs manifest themselves in shallow alternative teacher licensure programs, back-to-basics fads, high stakes testing that reflects trivial knowledge, and simplistic business-model approaches to education. If elected as a Director at Large, I will work to help AETS take a prominent stance in addressing this crisis in confidence and promoting effective science teacher education.

I have been active in AETS since its resurgence with the January 1993 Charleston, S.C. national conference. At that time I was a high school teacher anxiously taking part in three presentations, but I remember enjoying the meeting because of its academic and friendly atmosphere—an atmosphere that continues to reflect the membership of AETS and the importance of the organization’s mission. Since that time I have attended every national meeting presenting 31 papers, served as Program Co-Chair for the AETS 2003 and 1998 national conferences, received the AETS 2003 Award for Outstanding Early Career Science Teacher Educator, and currently serve on the JSTE review board and AETS professional development committee. I have also been active in the North Central AETS region serving as its director in 2001 and presenting 14 papers at its annual meetings.

A persistent theme in all these efforts has been my view that the power of what we know about teaching and learning is in the synergy that results when the pieces are collected into a coherent whole. I believe that reaching the lofty goals for education and restoring teacher and public confidence in teacher education depends primarily on connecting what we already know about teaching and learning and promoting such practice among teachers. That perspective will also guide my contributions to the AETS Board if I am elected as a Director at Large.

David T. Crowther, candidate for Director at Large

David T. Crowther is an associate professor at the University of Nevada, Reno in the department of Curriculum, Teaching and Learning. He received his Ph.D. in science education from the University of Nebraska, Lincoln. David taught in the public schools (grades 3-6) before entering into the University level. David is very involved with science education both in Nevada and nationally. He is the editor of CESI Science, and associate editor of the Electronic Journal of Science Education (EJSE). He is the retiring president for the Council for Elementary Science International (CESI) (2001 – 2003) and was the representative for CESI to the National Science Teachers Association (NSTA) Board / Council (2001-2003). He has done professional workshops in over 38 different states and has published on his research and interests in teaching content science to K-12 educators. Although David is a member of many science education organizations, he has been an active member of AETS since 1995 and has attended and presented at every conference since then. AETS is truly a science education family with a wonderful balance of research and practical applications. He looks forward to this opportunity to become more involved with AETS and would be honored to serve as an At-Large member on the Board of Directors.
candidates for AETS Director at Large (5), continued

Warren J. DiBiase, candidate for Director at Large

I am an associate professor of science education at the University of North Carolina at Charlotte where I currently teach courses in middle and secondary science education at both the undergraduate and graduate levels. This fall, I will begin teaching a STS course I developed as part of the University’s new general education program. Also, I have been actively involved in a number of professional development grants and research endeavors designed to help teachers implement a standards-based approach to teaching and assessment. In addition, I have over 20 years experience as public school science teacher. My first experience with AETS was making a presentation at a meeting of the Mid-Atlantic Regional Unit as a doctoral student. Since then, I have regularly attended and presented at both the regional and international meetings. During this time I have served on numerous committees, chaired the ad hoc committee on regional units, served as director of the Mid-Atlantic Regional Unit, chaired the 2002 conference committee, and am currently the program coordinator for the 2004 annual meeting in Nashville. Being active in AETS is an integral part of my work as a member of the science education community. I am committed to help AETS grow and evolve, continue to address and meet the needs of all those involved in science teacher education, and become the voice recognized by legislators and policy makers on all issues of science teacher education.

Hedy Moscovici, candidate for Director at Large

My involvement with AETS began in 1992. I could not foresee the impact of this event on my career and professional foci. The friendly, family-like, collaborative and professional atmosphere helped me define and refine teaching ideas, use conference meetings and journals to communicate research findings, and has often provided me with the necessary push to keep me involved and productive.

Since joining AETS, I have published 15 journal articles in professional journals including JSTE, JRST, Teacher Education Quarterly, SSM, Science and Children, and Research in Science Education; I have 3 book chapters (one in-press in a publication sponsored by AETS); have initiated or joined grant proposals; and have made over 100 conference presentations including many at AETS. I am active in the AETS service components as well, sitting on AETS committees such as the Informal Education and the Election Committee and on the Editorial Board of the Teacher Education section of Science Education. Since my selection to the Election Committee I attended Board Meetings to learn more about the management and political issues facing AETS and its potential to be the international organization concerned with science teaching and learning.

Make plans now for the
AETS 2004 International Conference
Nashville, TN Hilton Suites
January 7 - January 11, 2004

The 2004 International AETS Conference will be held at the Hilton Suites in downtown Nashville, TN. The conference is slated to begin on Wednesday, January 7 and end on Sunday, January 11, 2004. The Hilton Suites is in downtown Nashville, across the street from the Country Music Hall of Fame, near the Ryman Auditorium, and the Broadway and 2nd Avenue night club and shopping district. The Hilton is located 15 minutes from Nashville’s International Airport with easy transportation options to the hotel. And speaking of the hotel...

The Hilton Suites is located on 121 Fourth Avenue South in Nashville, TN 37201-3724,
Phone: (615) 620-1000 Fax: (615) 620-1001
http://www.nashvillehilton.com
Candidates for Elections Committee (6)

Michael E. Beeth, candidate for Elections Committee

I am currently a tenured Associate Professor in the Department of Curriculum and Instruction at the University of Wisconsin-Oshkosh. My teaching responsibilities include preservice science methods courses and graduate courses in science education and action research. Prior to my current position I was on the faculty at Ohio State University for ten years and I taught high school science for ten years. My research focuses on the teacher’s role in facilitating metacognitive discussions necessary for students to engage in conceptual change learning. More recently my scholarship has focused on action research with K-12 teachers and post-secondary science faculty investigating the effectiveness of their instruction. I’ve presented papers at AETS, AERA, ESERA, and NARST, and published articles in the Journal of Science Teacher Education, Journal of Research in Science Teaching, Science Education, the Electronic Journal of Science Education, the Journal of Elementary Science Education, the International Handbook of Science Education, and the Curriculum Handbook of the Association for Supervision and Curriculum Development. AETS play a crucial role in bridging the gap between research and practice for everyone engaged in teaching science. As a member of the Elections Committee, I would encourage members to accept leadership roles within AETS that contribute to this mission.

Eileen Carlton Parsons, candidate for Elections Committee

AETS is where individuals are openly received, divergent positions are acknowledged, and diverse ideas are respected. Within this place, others nurtured my growth as a science teacher educator, as a science education researcher, and as an involved citizen of the science education community. For the aforementioned reasons, I committed to AETS shortly after my first AETS conference in 1999. Since that time I served as a reviewer of conference proposals, initiated and coordinated the first electronic evaluation of an AETS conference, functioned as chair-elect and chair of the Inclusive Science Education Forum, and served as an active member of the Equity committee. As a member of the Elections committee, the dedication and leadership I have already demonstrated within the organization will not wane. In service to the organization, I will continue to employ the experiences and knowledge gained from initiating policies to make education more accessible and equitable for all; from researching and publishing on the roles of culture and privilege in the educative process; and from working with future teachers, practicing teachers, and administrators. I will diligently assist in identifying qualified candidates who possess the leadership ability to not only sustain the distinctiveness of AETS but also to move it forward as we strive to connect research, practice, and policy when responding to the multifaceted challenges of the 21st century.

Presently, I am an assistant professor in the Department of Mathematics, Science, and Technology Education at North Carolina State University located in Raleigh, NC.

Marcia Fetters, candidate for Elections Committee

As a member of the AETS Elections Committee, I would strive to uphold the mission of our organization and seek qualified candidates who exemplify strong leadership capability, represent diverse backgrounds and would bring integrity and vision to the elected position. With the current federal and state focus on No Child Left Behind AETS faces some exciting new challenges and opportunities. The diverse membership of AETS positions our organization to take a leadership role in shaping and defining the new initiatives prompted by this legislation.

I have served on several ad hoc and standing committees (Mentoring New Members, Membership, and Inclusive Science Education) and have served as a new member mentor. I feel these types of activities have strengthened the AETS community. With the reorganization of AETS two years ago, the Committee for Inclusive Science Education became the Forum for Inclusive Science Education. I served as the chair of this forum for the first year and continue to serve as it's long-term contact to the AETS board.

Currently, I am Assistant Professor of science education at Western Michigan University, specializing in middle and secondary science education with a focus on issues of making science accessible to for all students. I am an active member, regularly presenting and writing articles for publication for AETS, NARST and NSTA. As a member of the elections committee I would make it my goal to ensure that the AETS community has a diverse candidate pool from which to choose when making leadership decisions that will shape the future of our organization.
Kevin D. Finson, candidate for Elections Committee

I am a professor of Teacher Education at Bradley University, has taught science from middle school through college. He has authored publications in the Journal of Science Teacher Education, The Journal of Elementary Science Education, The Science Teacher, Science Scope, School Science and Mathematics, Science Education, and the Journal of Research in Science Teaching. He currently edits the Journal of Elementary Science Education, is an associate editor for School Science and Mathematics, and has reviewed for the Journal of Science Teacher Education. Dr. Finson has been active in obtaining externally funded grants, presenting at professional conferences at all levels, conducting teacher inservice programs, and in researching about student perceptions of scientists and science for students with special needs. He has served on numerous committees for AETS, the National Board of Professional Teaching Standards, State of Illinois, and SSMA (where he chaired the publications and elections committees). He has been regional director of the NC-AETS, and served on the planning committees for two AETS conferences.

I see AETS as having a unique role in articulating research into practice for science educator preparation, and being the national leader in communicating best practice to policy makers at all levels. I have been grateful to have been a member of AETS as it has grown in these capacities over the years. As a member of the Elections Committee, I would continue to strive to uphold and promote the mission and goals of AETS while seeking to fairly represent the diverse backgrounds of the members of AETS among future slates of AETS candidates for elected office. I have always valued the interaction, sharing of research, and collegial nurturing that is a hallmark of AETS. I have also valued the strong grass roots heritage of the association, and have been an active voice for maintaining and strengthening the ties between the regional organizations and national association. I would be honored to serve as on the Elections Committee for the membership of AETS.

Pamela Fraser-Abder, candidate for Elections Committee

Since its inception AETS has done a very effective job of promoting leadership in, and support for those involved in, the professional development of teachers of science. AETS is in a prime position to

• lead the way in demonstrating that through research, teaching practice, and program design; scientists and science educators could collaborate in the job of educating high quality teachers; and to
• effectively articulate and communicate scientifically based research findings to policy-makers at all levels, leading the way to scientific literacy for all.

AETS has a unique responsibility within educational organizations to address critical issues impacting science teacher education and the nomination of capable leaders is critical in accomplishing that responsibility.

I am presently an Associate Professor at New York University specializing in K-12 science teacher education. I have been active in the association since 1989, serving as President of AETS NE from 1993-1996 and have been a member of the National Standards review panel, the international, urban education, and other ad hoc committees of AETS. I continue to be actively involved in AETS because my attendance and participation at the annual meetings provide me with useful information that I can integrate into my science education program. If elected to the AETS Elections Committee I will strive to uphold the mission of the Association and to encourage candidates who exemplify strong leadership capability, represent diverse backgrounds, possess the ability to address critical issues in science teacher education and would bring integrity and vision to the elected position.

Jeff Weld, candidate for Elections Committee

“The only thing to do with good advice,” according to Oscar Wilde, “is pass it on. It is never any use to oneself.” One of the best pieces of advice I received early on as a graduate student was to join AETS. That was 1997, and I’ve been passing it on ever since. The friendships and professional growth opportunities that have accompanied my seven years of continual and deepening involvement in our organization have generated an indebtedness…I welcome paying forward. Elections Committee representation is a way of balancing the ledger toward an organization that supports people like me (i.e., all of you!) so much.

It’s trite, but truly worth reiterating that the effectiveness of any organization depends on its leaders. Service on the Elections Committee is the ideal vehicle for assuring the continued success of AETS since these are the folks that often solicit and facilitate your wishes for capable representation. In other words, the Elections Committee is charged with the huge responsibility of overseeing a veracious process of leadership and succession. But every AETS member that I have come to know is a person of integrity, pointedly including the other candidates for this committee, so you can’t cast a poor vote!
To All Faculty:

Looking for ways to get your graduate students more involved in their professional development? Encourage them to join the AETS Graduate Student Forum. The forum was started this year in order to meet the needs of graduate students in Science Education. Specifically, its purpose is to provide a vehicle through which graduate students from around the country can network and communicate with each other in order to begin the process of joining the professional community of science educators and provide graduate students with a unified voice so that their needs, concerns, and issues can be addressed by the AETS board. So far, we've submitted proposals for two functions at the 2004 conference: a pre-conference workshop in which students can meet one-on-one with science education faculty invited by the members of the AETS graduate forum and a panel discussion during the regular conference time on searching for a job.

Although we are excited about these accomplishments, in order to better meet the needs of students pursuing graduate degrees in Science Education we need their voices. Please encourage any and all graduate students to join the forum. If interested, they may join the listserv by sending an email to:

listproc@lists.cc.utexas.edu

In the body of the message, they should type: subscribe AETSGRADS FIRSTNAME LASTNAME

If students have questions about the forum, have them contact co-chairs Janice Meyer (janice.meyer@nau.edu) or Brian Fortney (bfortney@mail.utexas.edu). If students have questions about joining the listserv, have them contact communications secretary Barb Austin (baustin@mail.utexas.edu)
**Random Piques**

**Techie Women Dearth**

According to the National Science Foundation, the percentage of female students in engineering, computer science and related fields in the United States has fallen from 36 percent to 20 percent in the last two decades. From 1996 to 2002, the percentage of women in the tech workforce fell from 41 percent to 34.9 percent, according to a recent report by the Information Technology Association of America, an industry trade group in Arlington, Va. By comparison, women made up 46.6 percent of the U.S. workforce overall.

Source: San Francisco Chronicle, 8/18/03

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**Where does Congress go for Science advice?**

Politics and science make strange bedfellows. Increasingly partisan science is invoked on both sides of the aisle in Washington since the abolishment of the bipartisan Office of Technology Assessment by Congress in 1995. And since the beginning of his term, President Bush has eliminated the office of the Assistant to the President for Science and Technology and moved the White House Office of Science and Technology Policy out of the White House complex. The void is poorly filled by the National Academies of Science and university researchers who are geared for thorough rather than politically timely analysis.

A distillation of an editorial by Henry Kelly in the August 12, 2003 Washington Post

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**Your attention please**

Beginning with the next issue of the AETS Newsletter (Autumn, v. 37, n.5), Merton Glass of Northern Arizona University will be assuming editorship. Please direct your materials, suggestions, or any other newsletter-related concerns to merton.glass@nau.edu.
The Association for the Education of Teachers of Science

Promoting leadership in, and support for those involved in the professional development of teachers of science

AETS Newsletter
Published four times a year by the Association for the Education of Teachers of Science

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