

*In This Issue:*

President's  
Message.....1

*Announcements regarding  
AETS Officer nomination  
Committee positions  
AETS Awards  
AETS 2002 Reflections*

*Page 3*



Vol. 36, No.2

Winter, 2001-2002

Editor: Jeffrey Weld, Department of Biology, University of Northern Iowa

***President's Message***

**Alternative Certification: The Curse, the Challenge, and the Opportunity**

John E. Penick, President

**R**ecent reports predict that the US will need over two million new teachers by 2010. Our teacher education programs produce about 100,000 teachers each year, leading to a net shortfall of a million teachers in ten years. While teacher shortages in some disciplines are nothing new, an overall lack of teachers is a departure from the norm.

As a result of these current and impending shortages, many states are creating or encouraging the development of alternative teacher preparation programs; programs that do not follow the well-established patterns of preparing teachers. These alternative programs include many where persons with at least a bachelors degree are hired to teach while taking necessary courses for certification or licensure on a part-time basis. Other programs follow more traditional patterns of preservice teacher education but are not university-based. Several problems, real and potential, are possible.

Since many have complained for years about teacher education programs being lightweight, trivial, and appealing to less intellectual students, teacher shortages and the existence of alternative programs provide opportunity to eliminate or displace the university's prominent role in the production of teachers. At the same time, when universities cannot meet the demand, private enterprise is being offered entrée into the field. In North Carolina, for instance, a multi-million dollar grant from the US Department of Education has funded nine regional centers for the non-traditional preparation of new teachers. These centers are in direct competition with many of the state's public and private universities. Sylvan Learning has established programs for teacher licensure and many virtual or on-line universities are in this market as well. Even some school districts are proposing to take matters into their own hands and have their own, internal licensing program.

While there is nothing inherently wrong with alternatives to traditional university-based teacher education, we cannot ignore the rising alternatives. We must respond and respond in ways that enhance our effectiveness with prospective teachers.

**The Curse**

.....

Alternative certification poses several problems, none of which will go away. First, as uncredentialed teachers

**With the numbers growing [in alternative licensure programs] we have the option of ignoring the problem, responding minimally, or accepting the situation and designing optimal programs..**

*(Continued on page 2)*

*President's Message (cont.)*

are hired, they must seek out means to meet their educational requirements. Typically, these new teachers show up at our door, saying, "I have a teaching job; now I need these two or three courses." Usually, they need far more than they think, as they only know of the requirements for educational foundations and methods courses; rarely are they aware of specific subject matter courses or the nuances of individual university approval and recommendation mechanisms. And, many are not qualified in other ways. In North Carolina, for instance, the state requires a minimum of a 2.5 GPA overall and in the disciplines where a license is sought.

Yet, many of the new hires who come in have less. In addition, many universities offer a broad field, comprehensive science license at the middle and high school level, requiring that candidates have some coursework in each of biology, chemistry, earth science, and physics. Rare is the beginning alternative certification teacher who has done all of this. As a result, almost every candidate needs additional science courses. As an aside, in mathematics it is even worse, as school districts routinely hire new teachers who were educated as accountants, engineers, meteorologists, or actuaries, assuming that anyone who has a year of calculus will have no trouble getting licensed. In reality, at least in North Carolina, even a middle school math teacher must complete at least five math courses beyond a year of calculus, including advanced algebra, college geometry, and other demanding (and rarely offered in the evening) courses. And they must have a semester of college physics as well.

At NC State, for example, in math and science we reject 75% of all applicants (all of whom are presently teaching in local schools) because of their GPA or the impossibility of completing a full program in a reasonable amount of time. And, of course, they blame us and not the school that hired them (or their own poor scholarship as undergraduates).

As a further curse, as numbers mount, universities are having trouble meeting the demand. Using NC State as an example again, we have now admitted more students into our alternative licensure program than we have in our traditional preservice program. The cost of running two parallel preservice teacher education programs is becoming increasingly prohibitive, especially since the alternative students are in a non-degree program in a system where funding is based on numbers of students in degree programs.

**The Challenge** . . . . .

With the growing numbers in such programs, we have the option of ignoring the problem, responding minimally, or accepting the situation and designing optimal programs for these students. Most universities seem to be responding in some fashion but, unfortunately, the response seems typically to be the minimal one. The norm seems to be to

provide to alternative certification students the absolute bare minimum of courses required by the state for licensure, while virtually none would propose a minimalist program for their regular students. Of course, one can always say that these non-traditional students are older and don't need the extras, or that they are "busy" and can't or won't take these courses. When older students attend medical or law school, no one would dream of designing a program less rigorous than the standard (nor would we willingly accept their services unless we didn't know better).

These new students are also a problem in that they are working all day, can't take courses when we might like to offer them, and have pressures different than the usual undergraduate. They are tired after teaching all day, are eager to be home, and want to be done. Often they don't see the relevance of what we offer and are impatient for "something that's useful right now." In spite of this, there are several opportunities within this challenging situation.

. . . . .

**The Opportunity**

Alternative certification students come to us with needs quite unlike the traditional student. They have chosen, for whatever reason, to be teachers and now must complete some requirements. While not all have chosen truly willingly, they at least made a choice rather than falling into an undergraduate major that was easier to pursue than to change. These alternative students often do have more breadth and depth of subject matter when we see them since we are comparing them to college juniors most often. While not necessarily much older than traditional students, they do have a degree, usually some adult work experience, and they do have a daily teaching job. Almost all are paying their own tuition and are more committed to learning and teaching than many 20 year olds.

Equally interesting is the fact that every alternative licensure student is in a daily practicum, has a need to know, and is in a position to try out our ideas almost as fast as we present them. Gone with these students are the trials and tribulations of practicum placements, concerns that "my cooperating teacher won't let me try what you suggest," and the knowledge that many of our students never take a teaching position. Alternative certification programs could be exemplars of our profession. But, if we continue with traditional programs, don't raise our standards and expectations, and don't make our teaching reflect the research we so treasure and spout, then we will lose what little prestige we have as well as our position as the preeminent place where teachers are educated.

The 2003 AETS meeting in St. Louis will include an emphasis on how we are meeting this alternative challenge. Plan to be there January 30 – February 2 and describe your programs, your research, and your thoughts about this serious challenge and opportunity.

# *AETS* Membership Announcements

## Nominate someone for *AETS* Elected Positions!

To all members of *AETS*. It is time to nominate qualified members for the following elected positions:

President Elect  
3 Directors at Large  
2 Election Committee members

Please send your nominations to any of the following committee members by April 1, 2002:

Caroline Beller	beller@uark.edu
Randy Bell	randybell@virginia.edu
Hedi Moscovici	hmoscovici@research.csudh.edu
Eric Pyle	epyle@wvu.edu
Gary Varrella	gvarrell@gmu.edu

## Reflecting on *AETS* 2002

The 2002 *AETS* Annual International Meeting in Charlotte was a huge success! Over 400 members, including 100+ "first-timers" and 95 graduate students, attended the meeting. The program contained four pre-conference workshops and 230 concurrent sessions. All accommodations were first rate. From professional growth and fellowship, to "the hop" to a Hornets game, a good time was had by all.

Cliff Hofwolt and I would like to take this opportunity to thank each and every one of you who attended and presented at the Annual Meeting. Please know that you all are to be congratulated, as the meeting's success is a direct result of the collaborative efforts of all involved, particularly the planning team and the many members who helped make *AETS* 2002 so successful!

**Again, thank you, and see you in St. Louis!**

**Yours in Science Education,  
Warren**

**Warren DiBiase**

*conference evaluation results are viewable at:*

[www4.ncsu.edu/~ecparson/AETSAETSEvalresults.htm#Regional](http://www4.ncsu.edu/~ecparson/AETSAETSEvalresults.htm#Regional)

## Serve on an *AETS* Committee!

A number of *AETS* Committee appointments expire in 2003. If you have an interest in serving, please contact Herb Brunkhorst. Herb will be starting a file of those interested. [hkbrunkh@csusb.edu](mailto:hkbrunkh@csusb.edu)

Committees with positions beginning in 2003:

- Elections Committee
- Awards Committee
- Conference Coordination Committee
- Communications Committee
- Equity Committee
- Membership and Participation Committee
- Oversight Committee
- Professional Development Committee
- Publications Committee

## NSTA Elects new President!

Our own *AETS* President John E. Penick has just been elected President of the *National Science Teachers Association!* Congratulations, John, as you personify the essential bridge between these two central organizations of our profession.

## *Doing innovative work in teacher education using technology?*

**SITE** (Society for Information Technology and Teacher Education) will award \$1000 and free registration to SITE 2003 in Albuquerque, March of '03, to one *AETS* member. Contact John Penick at [john\\_penick@ncsu.EDU](mailto:john_penick@ncsu.EDU)

## *AETS* Awards Announcement

*Are you aware that AETS presents 5 awards at the annual conference?*

Award I, "Outstanding Science Teacher Educator of the Year"

Award II, "Outstanding Mentor Award"

Award III, "Honorary Emeritus Membership"

Award IV, "Innovation in Teaching Science Teachers"

Award V, "Implications of Research for Educational Practice"

Please take a moment to consider nominating a fellow member for one or more of these awards. The criteria, required materials, and benefits for each award are detailed in the *AETS* Awards homepage at our website.

The deadline for submission of materials for the awards is JUNE 1, 2002.

For further information you may also contact:

Dr. J. Randy McGinnis, *AETS* Awards Chair  
University of Maryland, College Park  
Sci. Tchng. Ctr., Rm. 2226J Benjamin Bldg.  
College Park, MD 20742

E-Mail: [jm250@umail.umd.edu](mailto:jm250@umail.umd.edu)

## *AETS* soon to have new internet look

A soon-to-be-functional domain name tips off improvements to *AETS*'s internet presence thanks to Eugene Wagner\* at the University of Pittsburgh. Try out [www.TheAETS.org](http://www.TheAETS.org)

*\*Congratulations to Eugene Wagner, AETS' new Director of Electronic Services!*



Department of Biology  
2759 McCollum Hall  
University of Northern Iowa  
Cedar Falls, Iowa 50614

Non-Profit Organization  
U.S. Postage  
PAID  
Permit No. 62  
Cedar Falls, Iowa 50613

---

---

## ***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 in Science

<u>Issue</u>	<u>Items Due by</u>
Autumn	Oct. 15
Winter	Feb. 15
Spring	May 15
Summer	Aug. 15

*Please send items and suggestions for best serving you to:*

Jeffrey Weld, Editor  
Department of Biology  
University of Northern Iowa  
2759 McCollum Hall  
Cedar Falls, Iowa 50614  
jeff.weld@uni.edu  
(319)273-2723

