Performance-Based Technology Assessment Of Teachers

Helen Barrett
University of Alaska Anchorage
Member of Leadership Team, NETS for Teachers
Preparing Tomorrow's Teachers to Use Technology

U.S. Department of Education funding initiative

National Educational Technology Standards (NETS)

January 13, 2000 - Orlando, FL
Ready or Not . . .
The World is Different

• Work is different ...
• Tools are different ...
• Communication is different ...
• Information is different ...
• Kids are different ...

And Learning Is Different!
Our Educational System Must Produce Technology-Capable Kids

Within a sound educational system students can become:

- Capable information technology users
- Information seekers, analyzers, and evaluators
- Problem-solvers and decision-makers
- Creative and effective users of productivity tools
- Communicators, collaborators, publishers, and producers
- Informed, responsible, and contributing citizens
PT³ Grant Partners

- Apple, Inc.
- California State University San Marcos
- Intel Corporation
- Milken Exchange on Education Technology
- NASA Classroom of the Future
- NCATE

U.S. Department of Education funded initiative
PT³ Contributors

- Classroom Connect
- Knowvation
- The Learning Company
- Semiconductor Industry Association
- Microsoft Corporation
- Public Broadcasting Stations
- T.H.E. Institute

U.S. Department of Education funded initiative
NETS Project Partners

- AFT  American Federation of Teachers
- ALA  Association of School Librarians, Amer. Library Assoc.
- ASCD Association of Supervision and Curriculum Development
- CCSSO Council of Chief State School Officers
- CEC  Council for Exceptional Children
- NAESP National Association of Elementary School Principals
- NASSP National Association of Secondary School Principals
- NEA  National Education Association
- NSBA National School Boards Association’s ITTE: Education Technology Programs
- NFIE National Foundation for the Improvement of Education
- SIIA Software & Information Industry Association
CURRICULUM ORGANIZATIONS

• ACTFL American Council on Teaching of Foreign Languages
• IRA International Reading Association
• NCSS National Council for the Social Studies
• NCTM National Council of Teachers of Mathematics
• NCTE National Council for the Teachers of English
• NSTA National Science Teachers Association
Establishing New Learning Environments

Traditional ------- Incorporating ------ New Environments

New Strategies

Teacher-centered instruction → Learner-centered environments
Single sense stimulation → Multisensory stimulation
Single path progression → Multipath progression
Single media → Multimedia
Isolated work → Collaborative work
Information delivery → Information exchange
Passive learning → Active/exploratory/inquiry-based learning
Factual/literal thinking → Critical thinking, informed decision-making
Reactive response → Proactive/planned action
Isolated, artificial context → Authentic, real world context
Phase I. NETS for Students

Released
NECC ’98

URL:
http://cnets.iste.org
Phase II. Connecting Curriculum and Technology

Released Nov. 1999
On Web at: http://cnets.iste.org
Phase III. Support Standards

Standards for:
- Teachers
- Administrators
- Infrastructure
- Resources
- Policy
NETS for Teachers
Released June, 2000

Web:
http://cnets.iste.org
Standards Categories

1. Technology Operations and Concepts
2. Planning and Designing Learning Environments and Experiences
3. Teaching, Learning, and the Curriculum
4. Assessment and Evaluation
5. Productivity and Professional Practice
6. Social, Ethical, Legal, and Human Issues
Performance Profiles

1. **General Preparation Profile:** introductory skills, knowledge, and attitudes

2. **Professional Preparation Profile:** integration of technology and curriculum

3. **Student Teaching/Internship Profile:** application of technology in student teaching/internships with students

4. **First Year Teaching Profile:** responsibility for use of technology to support teaching, learning, communications, management, and professional productivity in their classroom
Essential Conditions for Successful Technology Use

There are fundamental requirements that must be met for teacher candidates to learn to use technology effectively.

- **Visionary planning** with support and proactive **leadership** from the education system
- Educators **skilled** in facilitating the use of technology for teaching, learning, management, communications, and productivity
- **Assessment** of effectiveness of technology for learning
- **Access** to contemporary technologies, software, and telecommunications networks
- **Technical assistance/mentors** for using and maintaining technology resources
- **Rewards and incentive systems**
Phase IV. Standards for Evaluation and Assessment

As the standards and performance indicators are developed:

- performance assessments and the processes for applying them
- evaluation systems for assessing the effectiveness of technology use in classrooms, schools, and universities
Program determines readiness of Candidate

Report Card

ISTE Professional Proficiency Endorsement

Advanced Professional Proficiency Assessment
Portfolio Development Progression - From Pre-Service to Advanced Certification

1. Learning Portfolio [Formative]
2. Assessment Portfolio [Summative]
3. Employment Portfolio

Program determines readiness of Candidate

ISTE Foundations Proficiency Certificate

Advanced Professional Proficiency Endorsement

Program determines readiness of Candidate

General Preparation
Professional Preparation
Student Teaching/Internship
First-Year Teaching
Highly-Effective Teaching

Technology Operations & Concepts
Planning & Designing Learning Environments & Experiences
Teaching, Learning, & Curriculum
Assessment & Evaluation
Productivity & Professional Practice
Social, Ethical, Legal, & Human Issues

Advanced Certification Portfolio [Summative]
Professional Development Portfolio [Formative]
Employment Portfolio
Assessment Portfolio
Learning Portfolio

September 10, 2000

ISTE NETS for Teachers Assessment Framework
Products in Development . . .

1. Connecting Curriculum and Technology in Preservice Education
   Wheeling writing team
   August, 2000
   To be released at NECC 2001

2. Evaluation and Assessment Systems
   Tempe writing team
   December, 2000

3. Administrator Standards
   Redmond writing team
   February, 2001
Assessment Writing Team

Five teams met in Tempe, December, 2000:

1. Assessments for lessons written in August writing team meeting
2. Criteria for “green line” assessment (1st Profile)
3. Performance Tasks and Rubrics to assess 2nd & 3rd Profiles
4. Portfolio Development Criteria for 2nd, 3rd, & 4th Profile and beyond…
5. Observational Assessment Strategies for 3rd & 4th Profiles
<table>
<thead>
<tr>
<th>E-Portfolio Required Entries</th>
<th>ISTE NETS for Teachers: Standards</th>
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<tbody>
<tr>
<td><strong>Student:</strong></td>
<td>Operations Concepts</td>
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<tr>
<td>1. Classroom Technology Applications Plan File:</td>
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<td>2. Technology in an instructional unit and components of a unit File:</td>
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<td>3. Technology in Communication File:</td>
<td></td>
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<td>4. Technology for Record Keeping File:</td>
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<tr>
<td>5. Professional development in applying technology to teaching and learning: File:</td>
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<td>6. Technology in education vision statement or platform File:</td>
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Supporting Technology Assessment and Teacher Education (STATE)

2001 Knowledge Development PT3 Catalyst Grant Proposal

Private Sector Partners:
Teacher Universe
Apple Computer
EDmin.com

University Partners:
University of Alaska Anchorage

Non-Profit Partners:
MC-Squared
DEVELOPMENT

OBJECTIVE 1 - Create an online Clearinghouse on Electronic Portfolio and Performance Assessment in Teacher Education to disseminate promising practices.

OBJECTIVE 2 - Develop and implement model assessments for entry into Teacher Education programs (at the end of the first NETS Profile). (TU)

OBJECTIVE 3 - Design relational database structure and specifications for a Learning and Assessment Management Program (LAMP) to link standards, evidence, artifacts, and assessments for replication in SOE’s with traditional university campus information systems, such as Banner (Oracle) or SQL databases. (EDmin, Apple)

OBJECTIVE 4 - Development training and support materials will be developed and published through web site, videotapes, CD-ROM & DVD, and print materials. (ISTE)

OBJECTIVE 5 - Conduct at least one annual national Development Symposium on Using Technology to Support Assessment in Teacher Education in conjunction with a national or international technology conference such as SITE, ED-MEDIA or NECC.
DISSEMINATION

OBJECTIVE 6 - Provide presentations or workshops on Technology and Assessment at mainstream (non-technology-focused) education conferences such as ATE, ASCD, NSBA, AERA and the h-ed strands of various curriculum organizations (NCTM, NCSS, IRA, ACTFL, NCTE, NSTA).

OBJECTIVE 7 - Develop strategies for scaling up and disseminating this information through training materials, workshops, and academies for application of best practices and implementation at the local level.

- Workshops for faculty on developing their own e-portfolios
- Summer Institutes (cruise to Alaska!)
WHAT technology skills should be woven into the curricular fabric of our schools . . .

WHEN such skills should be taught . . .

HOW technology can support the new learning environments . . .

HOW we will know when the learner has achieved the educational standards established.
National Educational Technology Standards Project

U.S. Department of Education funded initiative

Lajeane Thomas
phone: 318 257-3923
fax: 318 257-4916
e-mail: lthomas@latech.edu
URL: http://cnets.iste.org