Are Assistive Technology Knowledge Skills Being Developed at the Preservice Level?

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Teacher Education Division Conference
Albuquerque, NM
November 11, 2004
Overview of NATRI

Need for AT Personnel
  - Federal Legislation
  - State AT Policies
  - Status of AT Users
  - Family Teacher and Student Perspectives of AT

Skills Required by AT Service Providers

Current Status of AT Personnel

Summary
Overview of NATRI

What is NATRI?

National Assistive Technology Research Institute
NATRI

Background

- Funded by the U.S. Department of Education, Office of Special Education Programs
- Cooperative Agreement
- Funded October 1, 2000
- 4 year project - extended for 18 months
- $2.8 million award
- Jane Hauser - Project Officer
NATRI

Project Goals

• To examine factors related to the planning, development, implementation, and evaluation of AT services in schools

• To disseminate the findings of the research in ways that will assist school personnel to develop or improve AT policies and practices for students with disabilities
7 Proposed Research Areas

1- Status of AT use in schools and the role it provides in education

2- Policies & procedures in the development and delivery of AT services

3- AT decision-making by IEP teams

4- Integration of AT use in learning environments (facilitate instruction, access to curriculum)

5- Effects of AT use on academic, social, functional performance of students

6- Training and technical support needed by persons implementing AT

7- Extent to which IHEs are developing AT knowledge and skills
NATRI - State Case Study

Participants

States:
CA, FL, KY, OR, TX, VA, WI, KS, MA, MT

Subjects:
State Department of Education Personnel, Local Education Agency Personnel, School Personnel, Classroom Teachers, Parents, and Students
NATRI - State Case Study

Participants

- Study of 10 states
- Six districts in each state
- Ten students in each district
- $10 \times 6 \times 10 = 600$ students
- Currently > 200 AT data collectors
NATRI - State Case Study

Procedures

On-Site Data Collection

- Train team of local AT data collectors
- Select target students using AT
- Distribute and gather permission letters and consent forms
- Obtain demographic data on students, AT data collectors, and teachers
- Conduct classroom observations
- Attend IEP meetings
- Interview teachers, parents, and students
- Conduct follow-up interviews
Need for AT Personnel

• Federal Legislation
• State AT Policies
• Status of AT Users
• Family Teacher & Students Perspectives of AT
The National Assistive Technology Research Institute at the University of Kentucky

Act to Promote the Education of the Blind (1879)

Enacted a system to provide free school books and tangible apparatus for students who were blind. Named the American Printing House for the Blind in Louisville, KY as the national central source of the educational materials.
In the mid-1930’s, the federal government supported the development of “Talking Books for the Blind.”
Federal Legislation - 60’s & 70’s

Captioned Films Act
Aided in the development of captioning on feature films.

Elementary and Secondary Education Act (ESEA)
Funded materials and equipment for schools to aid economically disadvantaged and children with special needs.

Section 504 of the Vocational Rehabilitation Act
Amendments of 1973
“No otherwise qualified individual with a disability...shall, solely by reason of his or her disability, be excluded from the participation in, be denied the benefits of, or be subjected to discrimination under any program or activity receiving federal financial assistance...” 29 U.S.C. 794.
Federal Legislation - 70’s & 80’s

Education for All Handicapped Children Act (P.L. 94-142)
FAPE which emphasized special education and related services designed to meet unique needs.

P.L. 99-457 1986 Amendments
Included younger children and their families.

Technology-Related Assistance for Individuals with Disabilities Act of 1988 (P.L. 100-407) Tech Act
Defined assistive technology and addressed access, trained personnel, and financing. It provided funds for states that wished to implement assistive technology services.
History of AT Legislation - 90’s

**Individuals with Disabilities Education Act of 1990 (IDEA) (P.L. 101-476)**

Included assistive technology as an integral part of the legislation. “Supplementary Aids and Services” for the first time included assistive technology devices and services.

**Americans with Disabilities Act (ADA)**

Civil rights law for people with disabilities of all ages. “No qualified individual with a disability shall, by reason of such disability, be excluded from participation in or be denied the benefits or the services, programs or activities of a public entity….“ 42 U.S.C. 12132.
Federal Legislation - 90’s & beyond

*Individuals with Disabilities Education Act*
Amendments of 1997 (P.L 105-17)

Includes a statement that ALL students with an IEP must be considered for Assistive Technology.

*Assistive Technology Act of 1998 & 2004*

Supports programs of grants to States to address the AT needs of individuals with disabilities.
Need for AT Personnel

- Federal Legislation
- State AT Policies
- Status of AT Users
- Family Teacher & Students Perspectives of AT
State Policy Survey

Special Education Directors in 50 states, DC & 10 U.S. territories

- 92% of states and 40% circulate AT policies, guidelines or technical assistance documents
- 50 states, DC, & 7 territories circulate some AT documents
- Documentation of AT consideration in the IEP was required by 90% of states and 70% of the territories
Need for AT Personnel

- Federal Legislation
- State AT Policies
- Status of AT Users
- Family Teacher & Students Perspectives of AT
Status of AT Users

- AT is being used in schools - extent is unknown
- AT is reported to be used more often by students with low incidence disabilities
- AT is being used across all grade levels preschool – 12 grade and through the transition process
- AT is use to aid all areas of human function, but mostly communication
- High tech devices are more often reported than low tech although both are used
Need for AT Personnel

- Federal Legislation
- State AT Policies
- Status of AT Users
- Family Teacher & Students

Perspectives of AT
What We Are Hearing from Teachers

- A lack of knowledge about state AT policies and products
- Desire for AT training/certification
- Depend on personnel with AT expertise
  - Receive some 1:1 training - vendors, service providers
  - Request help with individual students
What We Are Hearing from Teachers

- Seek assistance
  - They do reach out to apply knowledge to students - they do know who to contact
- Lack of adequate time
  - Keep abreast of new technology
  - In-class assistance
- AT has positive impact on student’s lives
What We Are Hearing from Families

- Lack of knowledge about AT funding
- Involvement in decision-making varies
- Desire for more training
- AT has a positive impact on their children’s lives
What We Are Hearing from Students

- AT has positive impact on their lives
- Most are very positive about their AT - some complaints about malfunctions
- AT service delivery could be better
  - Satisfaction with specific devices
  - Involvement in decision-making and evaluation
Skills Required by AT Service Providers
Skills Required by AT providers

- Assess/evaluate students
- Match students need to devices
- Consult with faculty and/or individual teachers
- Train students, teachers, families on using a specific device
- Collaborate with IEP team members
Skills Required by AT providers

- Provide professional development trainings to school staff
- Purchase equipment
- Collaborate with other staff to include students into the general education classroom
- Adapt and modify the curriculum
- Follow-up and evaluate AT implementation
Current Status of AT Service Providers
Current Status of AT Personnel

Subjects

• 173 AT Service Providers
• Served as NATRI data collectors
• Representing 8 states
• 32 school districts
Current Status of AT Personnel

Bachelor’s Degree

- 24% Speech/Language/Communication
- 20% Special Education
- 20% General Education
- 8% Psychology
- 7% Occupational Therapy
- 10% Unrelated field
Current Status of AT Personnel

Master’s Degree - 68%

- 35% Speech/Language/Communication
- 33% Special Education
- 9% AT or IT
- 5% General Education
- 5% Occupational Therapy
- 3% PT or Adapted PE
- 2% Early Childhood
- 2% Unrelated
Current Status of AT Personnel

Certification - 17%

- CSUN
- RESNA
- RIATT
- UW - Madison
Current Status of AT Personnel

Professional Development Activities

- Conferences (CSUN, CTG)
- Local/state workshops
- University courses
- Vendor training
Summary & Implications
By law, schools are required to provide AT services, and they do, but data suggest that students are underserved because of a lack of training in AT.
Summary & Implications

More AT services are being provided by non special educators than by special educators. Focus is device specific rather than on the education programs.
Summary & Implications

AT skills are being developed outside of higher education, often device and vendor driven.
Opportunity for higher education programs to offer courses and certification programs at both the preservice and inservice training level.
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