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ABSTRACT

This paper reports on a training program that was developed and implemented to increase awareness of training needs in the area of assistive technology. A survey was developed and distributed to Local Assistive Technology Specialists (LATS), parents, administrators, teachers, paraprofessionals, pre ervice teachers, and service providers throughout Florida. Results provided the nucleus for determining the development and implementation of a training module in assistive technology. A target group of 25 LATS representing various districts in Florida was selected for the study. The project included the completion and compilation of a questionnaire and participation in an assistive technology awareness workshop. Success was measured by comparing pre- and post-test results and attendance logs derived from two regional assistive technology awareness workshops. Appendices provide: glossary of related terminology; Awareness Workshop pre- and post-tests; Awareness Workshop attendance logs; training needs assessment survey; letter of explanation (LATS); letter of explanation (colleagues); total scores by training topic; frequently selected training topics; training locations by district; and an assistive technology inservice planning guide. (Contains approximately 15 references.) (LL/Author)

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THE DEVELOPMENT AND IMPLEMENTATION OF A TRAINING MODULE TO INCREASE THE AWARENESS OF ASSISTIVE TECHNOLOGY

by

Gwendolyn Bellamy Alexander

Submitted to the Faculty of the Abraham S. Fischler Center for the Advancement of Education of Nova University partial fulfillment for the requirements for the degree of Master of Science.

The abstract of this report may be placed in a National Database System for reference.

December 1993

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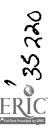
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Abstract

The Development and Implementation of F Training Module to Increase the Awareness of Assistive Technology.

Alexander, Gwendolyn B., 1993. Practicum Report, Nova University, Abraham S. Fischler Center for the Advancement of Education.

Descriptors: Assistive Technology/Teacher Training/Inservice Training for Teachers of Students with Disabilities.

This training program was developed and implemented by the author to increase awareness of the training needs in the area of assistive technology. A survey was developed and distributed to Local Assistive Technology Specialists (LATS), parents, administrators, teachers, paraprofessionals, preservice teachers, and service providers throughout the state. The results provided the nucleus for determining the development and implementation of a training module in assistive technology. A target group of 25 LATS representing various districts in Florida was selected for this project. The project included the completion and compilation of a questionnaire and participation in an assistive technology awareness workshop. The author measured success by comparing pre and post test results and attendance logs derived from two regional assistive technology awareness workshops. Refer to Appendix A:35 for a glossary of related terminology.



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Chapter I

Purpose

<u>Background</u>

The target group for this project included 25 Local Assistive

Technology Specialists (LATS) represented from various districts in the state of Florida. Each LATS was nominated by their district and trained by the center to assist families and students in the area of assistive technology. This diverse group represented a conglomeration of disciplines including educators, speech-language pathologists, and occupational and physical therapists.

In 1980, the Florida Department of Education (DOE) funded a center in Central Florida subsidized by Part B of the Education for the Handicapped Act funds to develop and operate a service to meet the unmet needs of Florida's nonspeaking students.

Initially, working on weekends, an interdisciplinary evaluation team consisting of a physical therapist, occupational therapist, educator, and speech-language pathologist, evaluated the communication needs of 40 students. During the second fiscal year the DOE appropriated



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funding for one full-time evaluation team and continuation of evaluation services. At the close of the third year of operation, support from professionals, users in the field, and more referrals than anticipated substantiated continuation of this service in Florida.

The center, located in an urban area of Central Florida, is easily accessible by several major highways. It is housed on the campus of an elementary school of approximately 300 students. This campus also accommodates several school district administrative offices.

Students served at the center represent every district in the state.

They reflected varied socio-economic backgrounds and cultures.

Ninety percent of the students served were non-verbal or had semi-intelligible communication skills with additional disabilities. Ten percent of the students served had no apparent disabilities; but manifested semi-intelligible or non-verbal communication skills.

Within 12 years, this center has evaluated over 700 students from various cities in Florida. As the number of student evaluation increased, so did the need for continued technical support and training. These services are currently provided through:



- On-site follow-up visits
- Technical assistance (phone)
- Training workshops (limited)
- Reference library
- Short term device loan library.

Today, the staff consists of an administrator, two occupational therapists, one physical therapist, four educators, three speech-language pathologists, and two administrative secretaries.

As an educator, the practicum author's role consists of participating in interdisciplinary team evaluations, on-site follow-up visits, training, and providing technical assistance to parents and professionals. In addition to these responsibilities, and to better serve the students and families in Florida, each staff member excluding support personnel, serve as regional coordinators for one of the five Florida Diagnostic Learning Resource System (FDLRS) regions.

The author's thirteen years of experience in services for students with disabilities includes six years of teaching severe and profoundly handicapped students and two years teaching trainable handicapped students. Additional teaching experiences include, two years as teacher



of the visually impaired and three years at the evaluation center. This background has contributed immensely to the development and implementation of this project.

Problem Statement

Teachers feel unprepared to implement assistive technology devices and strategies within their classrooms. This lack of experience with technology has led to an overwhelming number of referrals by the target group for evaluation for augmentative communication devices. The increased number of referrals sent to the center, as a result, expanded the waiting list to a year or longer for some students.

For example, during the 1992 1993 school term, 71 completed evaluation packets were received and recorded. As a result, each student's name was placed on the waiting list for an evaluation at the center. At that time there were 30 students waiting for an evaluation. Also, 12 evaluation packets were received and recorded as inactive or incomplete files. Therefore, a six month time period was extended to the referring school district to complete the evaluation packet and return it to the center for processing.



Another element noted was 40 requests for assistance in conducting on-site follow-up services and implementing use of augmentative communication devices within the home and/or school environments.

While presenting two sessions on awareness of assistive technology, the author further documented the need for preservice teachers, regular and special education teachers, and parents, to be knowledgeable of the benefits of assistive technology for students with disabilities. Through a question and answer session, the author realized many participants were unaware of the evaluation center and the many benefits of assistive technology.

When providing technical assistance to three special education classes in various districts throughout the state, the author noted a lack of assistive technology devices utilized therein. In one classroom, for example, 90 percent of the students were non-verbal, and did not use assistive technology devices to communicate their needs. Yet, in the other two classes, the teachers used their classroom computers with adaptive switches as alternative access methods. Many of the teachers, although using some adaptive equipment, expressed an interest in



knowing about other adaptive devices and alternative positioning techniques.

A review of legislation impacting students with disabilities revealed the Individuals with Disabilities Act (IDEA) of 1990, P.L. 101-407 has refocused the attention of consumers, educators, and parents on the use of assistive technology devices and services as one way to improve the quality of school life of students with disabilities.

Button (1992) related that the Office of Special Education

Programs (OSEP) issued a policy letter which clarifies the right of a

student with a disability to receive assistive technology services and
devices under P.L. 94-142, the mandate for free appropriate public
education (FAPE). Similarly, the technology needs of Vocational
Rehabilitation (VR) clients must be addressed in their Individualized
Written Rehabilitation Program (IWRP) to include technology services
to assist in the implementation of intermediate rehabilitation
objectives and long-term rehabilitation goals.

In addition to P.L. 94-142, the passage of the Technology-Related Assistance for Individuals with Disabilities Act of 1988 (P.L. 100-407), referred to as the Tech Act, stipulates that states must now reassess



ways in which they deliver services to individuals with disabilities.

One component of the Tech Act mandated the evaluation needs of an individual with a disability be conducted in the individual's customary environment. The Tech Act also mandated that training or technical assistance be provided for the individual, their family, and professionals including technical and rehabilitation service personnel or significant others who are involved in the major life functions of the individual with disabilities.

With the impact of current legislation and changes by which services are provided to students with disabilities in the area of assistive technology; parents, teachers, administrators, preservice teachers, paraprofessionals, and service providers are in need of ongoing training and technical assistance. To substantiate this need for on-going training, professionals who deliver assistive technology services need to keep abreast of new technologies and implementation procedures to meet the needs of students with disabilities who require use of assistive technology devices for a FAPE. An informal telephone survey administered to 25 LATS revealed 20 of the 25 surveyed in indicated a need for additional information about assistive technology.



Therefore, this practicum addressed the problem of improving the awareness of assistive technology devices and services in the state of Florida.

Outcome Objectives

The author randomly identified 25 LATS as the target group for this project. During a 12 week period, the target group completed a needs assessment survey to help establish priorities for training topics and participated in an awareness workshop designed to enhance their knowledge of assistive technology devices and services. The workshops were presented in various locations throughout the state and consisted of lectures, assistive technology device demonstrations, and video tape presentations. The proposed objectives for the target group at the conclusion of the 12 week implementation period were:

(1) Sixty percent of the target group will improve their awareness of the benefits of assistive technology as evidenced by questions 1, 2, 3, and 4 of the pre- and post test (Appendix B:38). The criteria for success will be correct responses to 3 of the 4 questions.



(2) Twenty LATS will attend one regional awareness workshop reflecting 80 percent of the target represented. This objective will be measured by attendance logs (Appendix C:40). Success criteria will be attendance at one or more regional awareness workshop.



Chapter II

Research and Solution Strategy

Research

Assistive technology is a catalyst for and a facilitator of change for students with disabilities. Researchers have identified three factors that impact the field of assistive technology. These include interdisciplinary collaboration, service delivery, and the delivery of ongoing training and technical assistance to students, their families and professionals. These factors are discussed in this review of literature.

Interdisciplinary collaboration for students with disabilities is a continuous issue. Services are provided by a variety of professionals including the regular or special education teacher, speech-language pathologists, physical and/or occupational therapists, and vision and/or hearing impaired teachers. Interdisciplinary collaboration must be developed to ensure quality educational services for all students with disabilities.



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A survey by Locke and Mirenda (1992) on teachers' AAC roles, found that the interdisciplinary team model, where team members met to discuss joint goals and educational plans for students, is the one most commonly used in the AAC field.

Calculator and Jorgenson (1991) stated that educational priorities should be established collaboratively with parents, advocates, and other team members. In this study, for example, a classroom teacher avoided calling on a student with limited communication skills. When help was needed, the student screamed until the needed attention was provided. As a result, the speech-language pathologist and occupational therapist agreed to work more collaboratively with the classroom teacher to establish goals and activities that could enhance the student's unaided modes of communication.

Schlosser and Lloyd (1991) referred to a study on selecting vocabulary for argumentative communication devices, demonstrating the need for interdisciplinary collaboration. The report related individual variations and characteristics (e.g. unique words) were provided by different informants (e.g. speech-language pathologists, special educators, parents). Without an interdisciplinary team, the



selected vocabulary may be incomplete or important words may be overlooked.

The role of the administrator of an educational facility serving students with disabilities plays a vital part in facilitating interdisciplinary collaboration. The administrator must recognize the need for team members to periodically meet and plan for the educational goals of their students.

As the field of assistive technology has unfolded, and to comply with current legislation regarding services for students with disabilities, several assistive technology service delivery models have emerged.

The New Jersey Department of Human Services established the Communication Resource Center (CRC) to serve individuals with severe communication disorders (Enstrom, 1992). According to Enstrom, the CRC provided interdisciplinary team assessments, an equipment loan program, client training, and follow-up services to students, professionals, and significant others.

Training and follow-up services were provided in the student's natural environment. The CRC's staff instructed the family and school



staff in the care and use of the electronic devices, implementation procedures, and if necessary, how to design manual displays for communication purposes. Continuous training and technical assistance was provided to maintain the student's current level of functioning and to keep professionals and significant others abreast of legislative issues and current trends in the assistive technology arena.

The Kentucky Assistive Technology Service (KATS) Network is a federally-funded project designed to develop and implement a system for making assistive technology available to individuals with disabilities in that state. The center's activities included information dissemination, referral for assistive technology services, consultations on appropriate assistive technologies, training and technical assistance, fabrication, modification, and loan of devices. These activities were funded under the Technology-Related Assistance for Individuals Act of 1988 (P.L. 100-407) and through the National Institute on Disability and Rehabilitation Research (NIDRR) (Conference Proceedings, October 1991).

The KATS Network also initiated a Funding Task Force to monitor the developments in health care initiatives on the state and



national level. In addition, they wanted to educate decision makers about comprehensive coverage of assistive technology and train people with disabilities and their family members to get the technology needed (The KATS Network Newsletter, 1992).

In Pennsylvania, the Department of Education's Bureau of Special Education established the Pennsylvania Assistive Technology Center (PATC) formerly known as the Pennsylvania Assistive Device Center. Staff functions at the center included an interdisciplinary team which provided consultations, training materials, and on-site visits to meet the needs of students, families, and professionals who require assistive technology in the state.

The PATC adopted the "train the trainers model" and now have a network of local assistive technology specialists who serve local school districts throughout the department of education's 29 regional units.

The PATC provided a variety of services including a library of assistive technology devices available on a long term loan after the completion of the center's evaluation procedure. Additionally, a demonstration laboratory was established for parents and professionals



to receive technical assistance and device demonstrations. The PATC also sponsored inservice training activities, published a newsletter, and disseminated a variety of informational articles on a regular basis (Counterpoint, 1993).

Oregon's Office of Special Education provided assistive technology services to students ages 3-21 through the Oregon Technology Access Program (OTAP). Training and technical was provided to parents, professionals, administrators, and other staff.

OTAP sponsors workshops throughout the state and operates a lending library of equipment and software (Counterpoint, 1993).

Assistive technology devices and services is an evolving field. Therefore, parents, students with disabilities, and professionals need on-going training and technical assistance to maintain current skills and stay abreast of new technologies.

The RESNA Technical Assistance Project (1992) stated the existence of assistive technology in the school environment is a relatively new phenomenon. It further stated the importance for all participants in the school community to receive information about the uses of technology to compensate for disability. This substantiated the



need for awareness of technology to compensate for disability. It also substantiated the need for awareness of assistive technology and training.

According to Romich (1993), students who did not receive AAC devices and training continued to need significant assistance from personal aides. Additionally, they moved from grade to grade without academic growth and seemed destined to live in a custodial setting for the remainder of life. In other words, use of AAC devices promoted independence and enhanced the student with disabilities opportunity for academic success.

See (1992), on the other hand, disseminated a survey to determine the needs of professionals who utilized technology within Minnesota's schools. The results of the survey indicated there were four critical attributes to successful use of technology by teachers. These included:

- On-site technical support
- Access to adequate hardware
- Access to appropriate types and amounts of software
- Long term, sustained staff development and inservice.



To further substantiate the need for training for teachers,

Rotondo (1992) reported while much attention is focused on students
and their disability, little attention is paid to teachers and their training.

In a study of data compiled for an educational technology plan,
Rotondo found staff development was by far the most difficult in
making full use of technology in the classroom. In the last analysis, the
report related:

- Adequate time was not allocated for training.
- Training resources such as facilities, instructors, materials,
 equipment and funding were insufficient, inappropriate or
 nonexistent.
- Follow-up sessions to trainings were inadequate or nonexistent.

 Researchers also concluded, according to Abbott-Shim (1990),
 there was a rising concern for the need for quality training. According
 to Abbott-Shim, several factors must be considered before developing
 training modules. These include identification of training needs,
 program evaluation, available resources, workshop scheduling, and
 follow-up.

In a study on multimedia training, Baumbach (1993) related as



Florida's educators begin to use new and emerging technologies in the classroom, and as new technologies are developed, there is an increasing need for training. The report estimated:

- Twenty percent of the educators in Florida know how to use computers and other emerging technologies.
- Twenty percent of the educators will never use these technologies.
- Sixty percent of the educators in Florida need to be trained in the use of these technologies.

See (1992) offered guidelines for planning staff development training activities in the area of assistive technology. The first step was for teachers to become aware of the technology that is available for them to use. The next step was to help teachers see the effective technological applications that can be used in the classroom to help the students achieve academic success. During the third phase, teachers are taught how to integrate technology into the curriculum or other daily routines. Last, refinement was when the teacher had an awareness of the various types of technologies and concluded that through their use, there was more variability.



Solution Strategy

The results of this literature review, along with other studies in this report, provided support for the belief that interdisciplinary collaboration, service delivery models, and on-going training with students, their families and professionals are vital in the area of assistive technology.

Consideration must be given to the development of effective training modules to ensure quality training for all participants.

Therefore, based on the research, the author developed and implemented Abbott-Shim's (1990) model for developing successful training modules. This model utilized a needs assessment survey to establish training priorities combined with reviewing previous training components to determine their usefulness and/or practically. Another element in this study was to determine training locations, resources, and follow-up with the target group to determine if training information was applicable.

The most important element in this project was the development of the needs assessment survey. This survey provided vital information to the author when prioritizing training topics and



establishing future locations for training within the state.

After analyzing previous training components and based on the information obtained from the surveys, it was determined a new awareness module should be developed. The staff collaboratively developed an introductory-level awareness workshop that addressed the following components: candidates for assistive technology; legislative issues; video tape testimonials from users in the field; and future goals and objectives for the center. This workshop was designed to heighten the community's awareness of assistive technology.



Chapter III

Method

Prior to the implementation of this project, significant data suggested a need to provide on-going training in the area of assistive technology. This was evidenced by the increased number of requested evaluations, on-site follow-up visits, technical assistance, telephone consultations, and an increased number of participants at workshops sponsored by the center.

Based on this information, a needs assessment survey was developed by the author to identify and prioritize specific unmet needs statewide in the area of assistive technology.

The survey was divided into five parts including a demographics section. The first portion, Part I, requested information regarding the respondents professional title (e.g. teacher, speech-language pathologist, occupational therapist, physical therapist, other).

Next, Part II requested the respondents to list information regarding previous training activities attended that were sponsored by the center (e.g. WOLF workshop, Outreach Team Training).



In Part III, the respondents were given a choice of fourteen topics and were requested to identify desired topics to be addressed in the 1993-94 training module (funding, assistive technology awareness, etc.).

In Part IV of the survey, participants were requested to list available locations within their districts that could be used for regional on-site training by the staff of the center.

Finally, Part V gave the respondents the option to list additional training topics they would like considered during the 1993-94 school term that were not included in Part III of the survey.

A total of 95 surveys were individually mailed to Local Assistive Technology Specialists (LATS), teachers, administrators, parents, paraprofessionals, preservice teachers, and service providers. Each survey (Appendix D:42) contained a letter of explanation (Appendix E:45 and F:47) and a stamped, self-addressed return envelope.

Because the surveys were distributed throughout the state, their return rate staggered over a three week period.

Week One

After formal and informal staff discussions, the data was collaboratively reviewed. The writer analyzed and prioritized (most to



least requested) the results of the survey according to the data provided. Scoring was accomplished by a visual inspection of the responses. A total of 95 surveys were distributed; 89 individual surveys were returned and completed, for an overall return rate of 93 percent. A breakdown of the total scores for each training topic is outlined in Appendix G:49.

Week Two

After analyzing the data, several training topics were selected most often by the target group. Frequently selected training topics are listed and prioritized in Appendix H:51.

Respondents were requested to list possible locations for on-site training within their district. Therefore, training locations by district were derived from the survey and a data base was created for retrieval of this information as needed (Appendix I:53).

Week Three

After analyzing the frequently selected training topics derived from the survey, written objectives were developed to meet the unmet training needs within the state. Examples of each objective is included in the dissemination packet (Appendix J:61).



Seven staff members consisting of two educators, three speech-language pathologists, and two occupational therapist were requested to write training objectives for one of the most frequently requested training topics obtained from the survey. Four staff members volunteered for this assignment.

Week Four

Objectives were edited by the author and placed in the appropriate format for inclusion in the dissemination packet.

Week Five

A dissemination packet entitled Assistive Technology Inservice Planning Guide (Appendix J:61) was developed. The packet included a description for workshops designed to meet the assistive technology needs in the state of Florida. The packet was developed by the practicum author and staff. Also included in the packet is an organizational preparation checklist which staff members can utilize when preparing for workshops.

The Assistive Technology Inservice Planning Guide was intended for use by LATS, teachers, parents, administrators, and service providers when requesting inservice training within their district. A



registration form was also included in order that respondents may request workshops; a maximum of five.

Week Six

The staff collaboratively developed an awareness workshop to implement within the five FDLRS regions. Utilization of multi-media equipment and handouts were developed for conference participants.

Week Seven

A planning meeting was held with the training coordinator to determine the types of assistive technology devices needed for demonstration purposes for the awareness workshop.

It was determined that an array of devices should be demonstrated including augmentative communication devices and assistive technology aids for persons with visual and hearing impairments.

Week Eight

Workshop assignments were distributed to staff members and rehearsal times scheduled. Assignments included registration, presenters, assistive technology device demonstrators, and computer technicians.



Week Nine

A pre- and post test (Appendix B:38) was developed by the practicum writer after completing the script for the awareness workshop.

Week Ten

The awareness workshop was presented in the central region of the state. The entire staff participated in the first awareness workshop. Participants were asked to complete their pretest at the beginning of the workshop and their post test at the conclusion of the workshop.

Week_Eleven

The awareness workshop was presented in the southwestern part of the state. The practicum author and selected members of the staff participated in this workshop. Participants were asked to complete their pretest at the beginning of the workshop and their post test at the conclusion of the workshop.

One disadvantage of the awareness workshop presented during weeks ten and eleven was the lack of parental representation and consumers. The information presented during each workshop would have heighten the parents and consumers awareness of assistive



technology and given them specific details about their rights to assitive technology devices and services as specified in current legislation.

Week Twelve

The pre- and post tests and attendance logs were reviewed and results recorded and analyzed.

Although the target group was unable to meet, overall comments on the surveys stated, the training increased their awareness of assistive technology and gave them a greater feel for what is required by law for persons with disabilities.



Chapter IV

Results

The evaluation and success of this project was measured by the satisfactory completion of two outcome objectives. These included:

(1) Sixty percent of the target group was to improve their awareness of the benefits of assistive technology as evidenced by questions 1, 2, 3, and 4, of the pre- and post test (Appendix B:38). The criteria for success would be correct responses to 3 of 4 questions.

Eighty percent of the target group improved their awareness of the benefits of assistive technology by responding correctly to 3 of 4 questions on the post tests.

The practicum author compiled and analyzed the results.

The results indicated the workshops were clearly presented, objectives were adequately defined, and examples presented included ones participants could easily relate to in their work environment.



(2) Twenty LATS would attend one regional awareness
 workshop reflecting 80 percent of the target group
 represented. This objective was measured by attendance
 logs (Appendix C:40). Success criteria would attendance at
 one or more regional awareness workshops.

Sixty percent of the target group attended one or more regional workshops presented by the staff. The attendance logs were managed by the center's training coordinator and the results were forwarded to the practicum writer to tabulate and compare.

Although this objective was not achieved, it is the practicum writer's opinion that many LATS had been working in the field of assistive technology for five years or longer and had acquired a general knowledge of the benefits of assistive technology. Therefore, this group needed more indepth training with various types of assistive technologies and implementation procedures.



Chapter V

Recommendations

The findings of this study indicated a need for on-going training and technical assistance in the area of assistive technology especially for Local Assistive Technology Specialists (LATS), parents, teachers, administrators, preservice teachers, paraprofessionals, and service providers.

The results of this study suggested several appropriate areas for future research. These included:

- Assess the training needs within the state in the area of assistive technology.
- 2. Develop interdisciplinary collaboration and evaluation teams at the school level to evaluate the assistive technology needs of students with disabilities.
- 3. Expand the Assistive Technology Inservice Planning
 Guide to include additional training components
 statewide.



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- 4. Include training components in the Assistive Technology
 Planning Guide that address multicultural issues.
- 5. Develop training components for minority regular and exceptional education teachers and preservice teachers in the area of assistive technology.

Clearly, assistive technology enhances the lives of students with disabilities. It is, therefore, imperative that all parents, professionals, and service providers are aware of assistive technologies and their many uses.



Reference List

- Abbott-Shim, S. Martha. "Inservice Training: A Means to Quality Care." National Association for the Education of Your Children, January 1990, pp. 14-18.
- "Assistive Technology and the Individualized Education Program."

 <u>RESNA Technical Assistance Project</u>, August 1992, p. 26.
- Baumbach, J. Donna. "Florida Multimedia Training, Research, and Development Center." Florida Technology in Education Ouarterly, Fall/Winter 1993, pp. 24-31.
- Button, Christopher. "Reauthorized Rehabilitation Act Increases Access to Assistive Technology." A.T. Quarterly, February 1992, pp. 1-4.
- Calculator, S. and C. Jorgensen. "Integrating AAC Instruction Into Regular Education Settings: Expounding on Best Practices."

 <u>AAC Augmentative and Alternative Communication</u>,
 September 1991, pp. 154-160.
- "Conference Proceedings." <u>Kentucky Assistive Technology Service</u>
 <u>Network</u>, October 1991.
- Enstrom, H. Daly. "The Communication Resource Center: A New Jersey AAC Service Delivery Model." <u>AAC Augmentative and Alternative Communication</u>, September 1992, pp. 234-242.
- "KATS Network Heads Toward 5th Year." <u>Kentucky Assistive</u>
 <u>Technology Service Network Newsletter</u>, Spring 1992, pp. 1-2.
- Locke, P. and P. Mirenda. "Roles and Responsibilities of Special Education Teachers Serving on Teams Delivering AAC Services." AAC Augmentative and Alternative Communication, September 1992 pp. 200-214.



- Romich, Barry. "The Best Interest of the Child." <u>Exceptional Parent</u>, April-May 1993, p. 46.
- Rotondo, M. Dianne. "Who's Teaching the Teachers?" American School and University, May 1992, pp. 26-30.
- Schlosser, R. and L. Lloyd. "Augmentative and Alternative Communication: An Evolving Field." <u>AAC Augmentative and Alternative Communication</u>, September 1991, pp. 154-160.
- See, John. "Ten Criteria for Effective Technology Plans." <u>The Computing Teacher</u>, May 1992, pp. 34-35.
- "States Boost Access to Assistive Tech." <u>Counterpoint</u>, Spring 1993, p. T-7.



APPENDICES



Appendix A GLOSSARY OF RELATED TERMINOLOGY



Appendix A GLOSSARY OF RELATED TERMINOLOGY

AAC System - An integrated group of components, including the symbols, aids, strategies, and techniques used by individuals to enhance communication. The system serves to supplement any gestural, spoken, and/or written communication abilities.

<u>Alternative Communication</u> - System utilized by persons who have no speech. These persons must rely completely on another system to communicate.

Assistive Technology Device - Any item, piece of equipment, or product system, whether acquired commercially, off-the-shelf, modifies or customized, used to increase, maintain, or improve functional capabilities of individuals with disabilities.

Assistive Technology Service - Any service that directly assists an individual with a disability in the selection, acquisition, or use of an assistive technology device.

<u>Augmentative Communication</u> - System utilized by individuals who have some speech, by are either unintelligible or have limited abilities to use their speech effectively.



Interdisciplinary Team - An approach which incorporates the goals, objectives, skills and knowledge of various disciplines, as well as that of the individual and family members. This approach may be implemented by either a single team member serving the primary role in consultation with other team members (often defined as transdisciplinary), or by several team members, each implementing the goals and objectives of the other disciplines as indicated.

<u>LATS</u> - A network of professionals throughout the state of Florida including educators, speech-language pathologists, occupational therapists, and physical therapists who are trained by the center to assist their districts, families, and students in the field of assistive technology.



Appendix B
AWARENESS WORKSHOP - PRE TEST AND POST TEST



Appendix B

Nam	9						
World of Assistive Technology Pre Test and Post Test							
1.	What is Assistive Technology?						
	a. Any item or piece of equipment used to improve the functional capabilities of a student with disabilities.						
	b. Any commercially acquired item either modified or customized used to enhance either academic or vocational skills.						
	c. Any service that assists in the selection or acquisition of an assistive technology device.						
	d. All of the above						
2.	Assistive technology devices and services are defined in this legislation as part of related or supported services, supplementary aids, ancillary services and special education instruction.						
	a. TECH Act						
	b. IDEA c. ADA						
	d. P.L. 94-142						
3.	Assistive technology devices and services can benefit students with the following disabilities. Name two. a b						
4.	Give two examples of assistive technology devices. a b						
5.	What is the lead organization in the state of Florida to provide assistive technology devices and services to students ages 3 to 21.						
	a. FAAST						
	b. VR						
	c. CEC d. ATEN						
	U. ATEN						



Appendix C AWARENESS WORKSHOP - ATTENDANCE LOGS



	Appendix C AWARENESS WORKSHOP - ATTENDANCE LOGS												
		Region											
		District											
	į	Category											
		प्रश्न प्रमुख	NIW	NIN	NIN	NIN	NIS	NIN	NIN	NIN	NIN	NIW	y/y
Date		स्वरूप इम्रज्यह	NIN	NIN	NIW	N/N	y/y	NIN	NIN	NIN	NIN	NIN	NIN
tle	presenters	753											
Workshop Title	rd	Slanatuce											
		ams.											

ERIC Full Best Provided by ERIC

Appendix D TRAINING NEEDS ASSESSMENT SURVEY



Appendix D

TRAINING NEEDS ASSESSMENT SURVEY

NAME: COUNTY: SCHOOL: ADDRESS	:	CITY/ZIP:
I. What	is yo	our professional title?
	Teac OT/P SLP Othe	Т
	ed in	ponsored training activities you during the 1992-93 school term (use ecessary).
		topics you would like addressed in the ng module.
	a.	Assistive technology (awareness)
	b.	Augmentative communication (manual boards/devices)
	C.	Adaptive devices for the computer
	d.	Creating a communicative classroom/home environment
	e.	Environmental controls
	f.	Funding



	g.	Integration of assistive technology into Individual Educational Plans
	h. i. j. k. l. m.	Work station modification Mobility/seating/positioning Technology assessment Technology related loan programs Switch adaptations/awareness Augmentative communication device training Specify devices 1. 2. 3.
	n.	Implementation strategies for specific augmentative communication devices
IV. List training.	avail	able locations in your region for on-site
1. 2.		
		onal topics you would like considered 4 training module.

Appendix E LETTER OF EXPLANATION- LOCAL ASSISTIVE TECHNOLOGY SPECIALISTS



Appendix E

LETTER OF EXPLANATION- LOCAL ASSISTIVE TECHNOLOGY SPECIALISTS (LATS)

April 6, 1993

Dear Local Assistive Technology Specialists (LATS),

During the 1992-93 school term, the Center provided a variety of training opportunities to parents, teachers, occupational and physical therapists, speech-language pathologists, and LATS. For the next year, we are planning to offer an expanded staff development training module. To make this training beneficial to all, we need your assistance.

Please complete the attached survey and return it in the stamped, self-addressed envelope by April 23, 1993. Please be sure to include suggestions for possible topics, presenters, and/or training sites in your region.

Thank you for your continued support!

Respectfully yours,

Gwen Alexander Educator



Appendix F LETTER OF EXPLANATION - COLLEAGUES



Appendix F

LETTER OF EXPLANATION - COLLEAGUES

May 20, 1993

Dear Colleagues,

During the 1992-93 school term, the Center provided a variety of training opportunities to parents, teachers, occupational and physical therapists, speech-language pathologists, and Local Assistive Technology Specialists (LATS). For the next year, we are planning to offer an expanded staff development training module. To make this training beneficial to all, we need your assistance.

You have been randomly selected to assist us in determining the needs in your district. Please complete the attached survey and return it in the stamped, self-addressed envelope by June 1, 1993. Please be sure to include suggestions for possible topics, presenters, and/or training sites in your region.

Thank you for your continued support!

Respectfully yours,

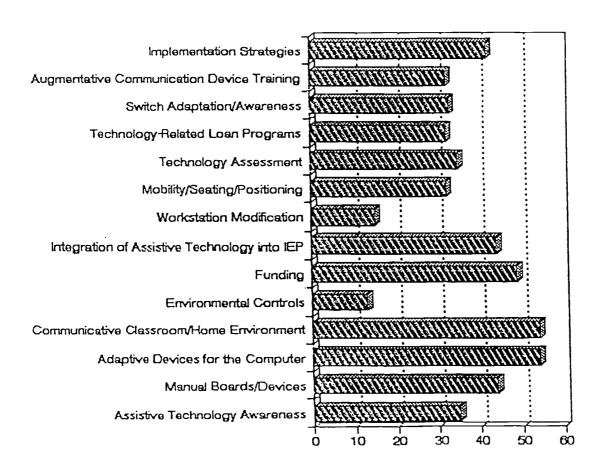
Gwen Alexander Educator



Appendix G TOTAL SCORES BY TRAINING TOPIC



Training Assessment Survey





Appendix H FREQUENTLY SELECTED TRAINING TOPICS



Appendix H

FREQUENTLY SELECTED TRAINING TOPICS

- 1. Adaptive Devices for the Computer Creating a Communicative Classroom Environment
- 2. Funding
- 3. Augmentative Communication (manual boards/devices) Integration of Assistive Technology into the IEP
- 4. Implementation Strategies
- 5. Assistive Technology Awareness Technology Assessment





COUNTY	REGION	LOCATION	54
Bay	1	Gulfcoast College, Panama City, FL Margaret K. Lewis Center	
Escambia		FDLRS Conference Rm.	
Okaloosa		FDLRS	
		Sliver Sands School	
	1		
Okaloosa	1	Okaloosa County School Conference Rm. Computer Lab	
Taylor	1	ESE District Office Taylor Tech. Inst.	
Alachua	15	Sidney Lanier School Talbot Elementary School	
Clay	11	Orange Park ESE Meeting Rm. School sites	



COUNTY	REGION	LOCATION 55
Columbia	II	Watertown Head office rm.
Duval	II	Manderia Oaks School Mt. Herman Exceptional Education Center
Gilchrist	l!	Gainesville
Nassau	II.	Nassau Co. School Board - (awareness) Yulee Primary Emma Love Hardee Fernandina Beach High School
Brevard	111	Central Pine Grove South Pine Grove
Brevard	111	School Board-Viera Complex Pine Grove School
Brevard	111	Viera Cocoa Library



COUNTY	REGION	LOCATION	56
Lake	111	Lake County Educational Center	
Okeechobee	III	ESE Annex	
		School sites	
<u> </u>		<u>l</u>	
Okeechobee	111	FDLRS Galaxy	
Orange	111	Cherokee School - Wendesday afternoons of	or
		evening meetings with parents	
<u></u>			
Orange	Itt	Lake Como Elementary	
Osceola	III	The Media Center Classroom	
		District Office Building	
Polk	III	ESE Department	
		Oscar J. Pope Elementary	



COUNTY	REGION	LOCATION	57
Seminole	III	CSEC Velma Mitchell Midway Elementary	
Seminole	III	Rosenwald ESEC Casselberry Elementary	
SEMINOLE	III	School sites 1-2 hrs max.	
Volusia		LACET	
Volusia	III	ACET Palm Terrace Elementary	
Charlotte	IV	Charlotte Co. School Board Office Charlotte Harbor School	
Hardee - Desota	IV	School Board of Hardee County - Board R	m.
Hernando	iV	Deltona Elementary School	



COUNTY	RECION	LOCATION	58 ·
Hernando	IV	Pasco-Hernando Community College	
Highlands	IV	Highland County Schools Board Rm. or rm.	conference
Hillsborough	IV	School sites Instructional Service Center 40th St.	
Manatee	IV	Orange Ridge-Bullock School	
Pasco	IV	District Office computer lab Media production lab large meeting rm. Pineview Middle School	
Pinellas	IV	Eisenhower Elementary, Clearwater,FL	
Pinellas	IV	FDLRS	



COUNTY	REGION	LOCATION	59
Pinellas	IV	Nina Harris ESE Center	
Pinellas	IV	Tyrone Elementary	
Polk	IV	FDLRS 3 centers available with students using	aug. systems
Broward	V	FDLRS Nova FAU	
Broward	V	The Quest Center FDLRS Library	
Broward	V	Wingate Oaks Center Sailboat ?	
Collier	V	FDLRS Center approval of cooridnator	



YTMUO2	REGION	LOCATION	60
Dade	V	FDLRS -S	
Lee	V	Lee County ESE BLDG approval of co	oridnator
Lee	V	TEC Training Rm. Central Office Bldg.	
Monroe	V	Marathon area Key West - May Sands ESE Center	
Palm Beach	V	District Administrative Complex	



Appendix J ASSISTIVE TECHNOLOGY INSERVICE PLANNING GUIDE





Dear Colleagues,

The Assistive Technology inservice Planning Guide was developed as a guide for parents, teachers, preservice teachers, paraprofessionals, administrators, and service providers to aid in selecting statewide regional training modules in the area of assistive technology.

The Assistive Technology Inservice Guide is designed in a simplified format.

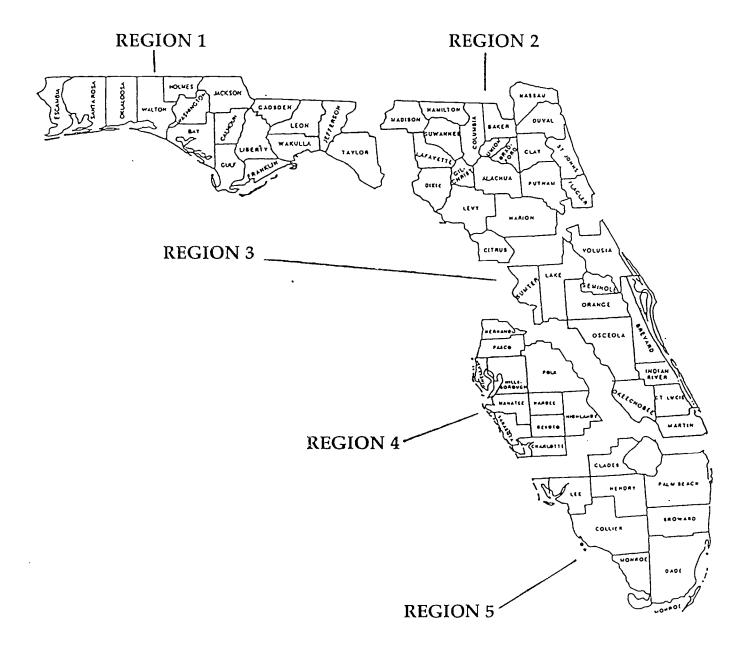
- Locate your district on the map to determine your region.
- Note available training modules in your region (you may select topics in another region if you desire).
- Register for each training module, by completing and mailing the registration form that is located in the back of this packet.
- Check the square corresponding to all workshops you plan to attend.
- A registration confirmation letter confirming the location, date, and time of the training will be mailed upon completion of this form.

If you have any questions regarding this process or know of anyone who needs a copy of this guide, call the center at 1-800-328-3678.

The center was designed to make assistive technologies and related services more accessible to all Floridians with disabilities.



FDLRS REGIONS





REGISTRATION FORM

NAME:	DATE:					
SCHOOL:	COUNTY:					
ADDRESS:						
CITY:	ZIP:					
TITLE:	SSN:					
Instructions:	Scan the Assistive Technology Inservice Planning Guide. Locate the workshop for your exceptionality area and/or target audience. To select your desired workshop, place a <i>check mark</i> in the space corresponding to inservice title. You will receive written confirmation of your registration. Return all completed forms to the center for processing.					
INSERVICE TIT	LES					
	OF ASSISTIVE TECHNOLOGY (Awareness) Fication Areas					
	OOM ENGINEERING fication Areas					



 FUNDING ALTERNATIVES FOR ASSISTIVE TECHNOLOGY DEVICES AND SERVICES All Certification Areas Region: Date:
LOCAL ASSISTIVE TECHNOLOGY SPECIALISTS TRAINING (LATS) All Certification Areas Region: Date:
 USING ADAPTIVE SWITCHES IN THE CLASSROOM All Certification Areas Region: Date:



Date of Inservice:

Region:			
Title of Inservice:	WORLD OF ASSISTIVE TECHNOLOGY (Awareness)		
Description:	The crucial role assistive technology plays as a support to individuals with disabilities will be explored during this workshop. Participants will receive an overview of assistive technology, its benefits, and the services provided by the ATEN. Format includes device demonstration, video presentations. group activities, and lecture.		
Location:			
Presenter:			
Contact Person:			
Targeted Audience:		Admi agenc	nistrators, teachers, parents, service ies.
Registration Required:		Y	N
Limit:			
Inservice Points:			
CEUs:			



Region:				
Date of Inservice:				
Title of Inservice:	LOCAL ASSISTIVE TECHNOLOGY SPECIALISTS (LATS) TRAINING			
Description:	Intensive 3 day training institute for the LATS network. Focus of the training changes based upon the needs identified during the previous year. Format includes lecture, demonstration, and hands on lab sessions. Regional LATS meetings are held to allow networking and sharing of ideas. Contact the LATS coordinator for additional information regarding regional meetings.			
Location:				
Time of Inservice:				
Contact Person:				
Targeted Audience: LATS (only)				
Registration Required: Y N				
Limit:				
Number of Inservice Points:				



CEUs:

Region:					
Date of Inservice:					
Title of Inservice:	CLASSROOM ENGINEERING				
Classroom engineering is a way of organizing the classroom environment for interactive, symbolic communication so that communication is integrated to all events in the daily routine. Classroom engineering is also a system for storing communication displays so they are out and available for accessing by students and teachers. Format includes analyzing daily classroom routines, lecture, hands on activities, and video presentations, and participation in engineering a classroom for communication.					
Location:					
Time of Inservice:					
Contact Person:					
Targeted Audience	Teachers, paraprofessionals, CRTs, and administrators				
Registration Required: Y N					
Limit:					
Number of Inservice Points:					
CEUs:					



Region:			
Date of Inservice:			
Title of Inservice:	FUNDING ALTERNATIVES FOR ASSISTIVE TECHNOLOGY DEVICES AND SERVICES		
Description:	The search for funding for assistive technology can be long and laborious. This workshop is designed to identify funding sources, eligibility criteria, and documentation needed to secure funding for assistive technology devices and services. Format includes the development of a funding plan, video presentations, lecture, and hands on activities.		
Location:			
Time of Inservice:			
Contact Person:			
Targeted Audience	ELATS, parents, teachers, administrators, service providers		
Registration Requi	red: Y N		
Limit:			
Number of Inservi	ce Points:		
CEUs:			



Region:					
Date of Inservice:					
Title of Inservice:	Using	Adap	otive Switches in the Classroom		
Description:	Participants will obtain an overview of the benefits of using adaptive switches as alternate access methods. Each participant will receive a sample of classroom activities for switch use and a catalog of adaptive switches. Format includes video presentations, hands-on demonstrations, and lecture.				
Location:					
Time of Inservice:					
Contact Person:					
Targeted Audience:			S, parents, teachers, administrators, ce providers		
Registration Required:		Y	N		
Limit:					
Number of Inservice Points:					
CEUs:	CEUs:				



INSERVICE PREPARATION CHECKLIST

WORKSHOP:				DATE:		
LOCATION:				TRAINER(S):		
ONSITE CONTACT:			CT:	PHONE:		
				<u>ITEM</u>		
	YES	NO	N/A			
1.	۵	O.	ū	Have confirmed date, time, location, and number of trainees?		
2.	ū	۵		Do I have registration information, inservice points and/or CEU forms?		
3.	۵		O.	Do I have sufficient quantities of training materials for all participants, plus 10% more to meet the unexpected?		
4.	ū		ū	Has my audio/visual equipment been ordered and put in place?		
5.	ū	٥	۵	Do I have sufficient supplies (tables, pens, markers, blank overheads, easel board pads, etc.)?		
6.	٥	۵		Is my emergency box ready to go (scissors, duct tape, wide masking tape, power cords, etc.)?		
<i>7</i> .	٥	۵	۵	Do I have extra bulbs for the equipment?		



8.			Do I have materials for the conference display (devices, display board, brochures, device trial cards, etc.)?
9.	ū	0	Is the display area easily accessible to participants?
10.	ū	۵	Is my outline updated and ready for presentation?
11.	ū	۵	Is the computer equipment set-up and operational? If not, is my back-up copy of the presentation in order including slides and/or overhead transparencies?
12.	۵	ū	Have I left word where I can be reached in case of emergency?

ADDITIONAL:

