

ASSISTIVE TECHNOLOGY GUIDLINES FOR KENTUCKY SCHOOLS

The Kentucky Department of Education wishes to thank the many dedicated persons who contributed to the development and refinement of this document, especially those who spent long hours drafting and editing the content to help assure it met a high standard of quality.

Assistive Technology Guidelines Primary Authors & Editors

Debra Bauder, University of Louisville, Faculty, Preston Lewis, Division of Exceptional Children Services (DECS) Program Manager, Carlene Gobert, DECS Consultant, Carrie Bearden, Ohio Valley Educational Cooperative (OVEC), Exceptional Children Services Director

Kentucky Assistive Technology Guidelines Contributors/Workgroup

Debra Bauder, Faculty Melissa Miller, Program Director, Assistive University of Louisville Technology Practitioner Western Kentucky Assistive Technology Consortium

Beth McKinney-Whitlock, Executive Director Jean Isaacs, Assistive Technology Bluegrass Technology Center Practitioner, Bluegrass Technology Center

Carrie Bearden, Exceptional Children Services Director Mary Beth Krebs, Assistive Technology

Ohio Valley Educational Cooperative Specialist , Jefferson County Public School

Robert Fortney, Regional KETS Consultant Bill Morrison, Advocate

Office of Education Technology, KDE Office of Public Advocacy

Preston Lewis, Program Manager Tom Simmons, Faculty

Division for Exceptional Children Services University of Louisville

Robert Glass, Executive Director

Kentucky Developmental Disabilities Council

Kentucky Assistive Technology Guidelines Workgroup

Brian Taylor, Assistive Technology Consultant Jennifer Bell,

Fayette County Public Schools University of Kentucky

Elizabeth Lahm, Faculty Bobbie West, Parent

University of Kentucky Jefferson County

In addition, the Department of Education wishes to thank the field reviewers from school districts, state agencies, higher education, special education cooperatives and other public and private service providers who contributed comments and recommendations for this document.

Part I -Policies and Procedures MENU

Preface

[Rationale](#)

[Purpose](#)

[Philosophy](#)

Definition

[Legal Definitions](#)

[Categories of Assistive Technology](#)

[General Considerations](#)

Steps for Determining Assistive Technology

in The IEP Process

[Referral](#)

[Determining Need for Evaluation](#)

[Evaluation Specific to AT](#)

Individual Education

Program (IEP)

[Components of the IEP](#)

Transition and Technology

Implementing the IEP (Service Delivery)

[Assistive Technology Checklist](#)

[Return to top of page](#)

Part II - Supporting Resources Menu

Professional Development

Assistive Technology & KIRIS

[Kentucky Education Technology System](#)

[The KETS AT Matrix](#)

[Funding](#)

[Education Funding](#)

[Vocational Funding](#)

[Funding Sources for Non-School](#)

Related AT Needs

[Resources for the Development and](#)

[Delivery of a Funding Request](#)

[Addressing District Assistive Technology Needs](#)

[Administrative Concerns](#)

[Glossary](#)

[References](#)

[Appendix](#)

[Return to top of page](#)

PREFACE

Rationale

These guidelines are intended to support the basic premise in this Commonwealth that "all children can learn" and have a right to a world class education. This document is to serve as a catalyst to identify the tools that can make this opportunity available for many children and youth with disabilities.

Research and development in assistive technology has resulted in an increased realization of human potential. Persons with disabilities have been able to utilize assistive technology to overcome barriers to learning, living and working. It must be remembered though that assistive technology is not the goal, but only the tool to help us reach a series of lifelong solutions. While the research continues to be valuable, our emphasis needs to be placed upon better awareness of what presently exists and how to apply it to problems faced by people with disabilities in daily living, including educational settings.

With the inclusion of assistive technology in P.L. 101-476 (IDEA) in 1990, there was clear intent to make assistive technology devices and services an integral component of specially designed instruction for students with educational disabilities to help increase or maintain functional capabilities. This has led to numerous questions about evaluation, training, funding and usage of assistive technology. Admissions and Release Committees (ARCs) often struggle with determining eligibility for assistive technology and how to integrate its usage into the IEP. This continues to be an individual decision for each child, but there are procedural questions ARC's can answer to reduce the barriers and delays in providing assistive technology to qualified students. Parents and professionals have been mutually frustrated in their collaborative attempts to obtain what they feel could unlock the door to learning for a child.

[Return to top of page](#)

Purpose

The purpose of this document is to assist teachers and administrators in identifying and meeting student needs for assistive technology as provided by the Individuals with Disabilities Education Act (IDEA) and to offer specific directions on classroom implementation. It includes a thorough description of issues to consider from the start of screening through the provision of assistive technology and on-going evaluation of its use for educational purposes. Connections are given to related resources and programs which can enhance access and utilization of assistive technology. Until recently, there have been few materials available to help educators make critical decisions in the provision and application of assistive technology. This document represents a compilation of ideas and information devised by those in Kentucky and elsewhere who strive to use assistive technology to improve accessibility and acceptance for children and youth with disabilities.

[Return to top of page](#)

Philosophy

This document is based on the philosophy that children have a right to technology in order to improve, remediate, or compensate for deficits in their educational performance (Bowser & Reed, 1995) and that using technology will result in better student outcomes. With this premise, the implementation and use of "appropriate" technology will result in definite improvements in the functioning of children with disabilities.

For students with disabilities to accomplish these goals, one must also take into account the following best practices:

- "a) employ technology as a tool to facilitate the achievement of educational goals;
- b) utilize environmentally based assessment procedures to assist in the selection of appropriate assistive equipment;

- c) select assistive technology based on individual student needs, not on equipment availability;
- d) integrate assessment procedures as an on-going facet of the education program to evaluate the effectiveness and fine-tune the use of assistive equipment;
- e) consider the related skills of environmental control, communication, and mobility in addition to academic achievement when determining educational goals;
- f) utilize a fluid team, whose members change depending on the student's needs, to assess and prescribe technology;
- g) integrate technology, where appropriate and as needed, across all learning environments of the individual and throughout the calendar year;
- h) place students in programs based on educational achievement, not disabling condition or need for specialized technological devices; and
- i) promote interactions with non disabled peers in natural environments" (ASHA, 1996).

Note: When determining assistive technology for an individual, the basic principle of using the lowest level of technology that will meet an individual's needs should first be considered.

[Return to top of page](#)

Definitions

Legalities

The following definitions are provided to assist in understanding the scope of this document. Several substantive changes have been made to Individuals with Disabilities Education Act (IDEA) (P.L. 105-17) relating to public agencies' responsibilities to provide special education and related services for children with disabilities. Among those changes, IDEA includes specific requirements for public agencies to make assistive technology devices and services available for certain children who have disabilities.

Definitions:

Assistive Technology - "Each public agency shall ensure that assistive technology devices or assistive technology services, or both, as those terms are defined in 300.5-33.6, are made available to a child with a disability if required as a part of the child's: a) special education; b) related services; or c) supplementary aides and services". (CFR 300.308).

Assistive Technology Device "means any item, piece of equipment, or product system, whether acquired commercially off the shelf, modified, or customized, that is used to increase, maintain, or improve functional capabilities of children with disabilities" (IDEA, P.L. 105-17, 707 KAR 1:230).

Assistive Technology Service "means any service that directly assists a child with a disability in the selection, acquisition, or use of an assistive technology device. The term includes -

- a) the evaluation of the needs of a child with a disability, including a functional evaluation of the child in the child's customary environment;
- b) purchasing, leasing, or otherwise providing for the acquisition of assistive technology devices by children with disabilities;
- c) selecting, designing, fitting, customizing, adapting, applying, maintaining, repairing, or replacing of assistive technology devices;
- d) coordinating other therapies, interventions, or services with assistive technology devices, such as those associated with existing education and rehabilitation plans and programs;
- e) training assistance for a child with or, if appropriate, that child's family; and
- f) training or technical assistance for professionals (including individuals providing education or rehabilitation services), employers, or other individuals who provide services to employ, or are otherwise substantially involved in the major life functions of children with disabilities." (IDEA, P.L. 105-17, Section 1401 (a) (26).)

Rehabilitation Technology means the systematic application of technologies, engineering methodologies, or scientific principles by individuals with disabilities in areas which include education, rehabilitation, employment, transportation, independent living, and recreation. The term rehabilitation technology includes rehabilitation engineering, assistive technology devices, and assistive technology services. (P.L. 103-73).

NOTE: The 1997 reauthorization of IDEA, (P.L. 105-17) specifies that all children who are identified as having special education needs must be considered for assistive technology.

[Return to top of page](#)

Categories of Assistive Technology

Types of assistive technology have been classified into categories. Each category below is identified with an explanation of the type of devices/adaptation that might be considered within each category. It should be noted that the examples are **not an exhaustive list**, rather they illustrate the types of devices/adaptations for each category. Refer to the descriptions of the categories when determining what type of technology applies to your situation.

Aids for Daily Living Self help aids for use in activities such as eating, bathing, cooking, dressing, toileting, and home maintenance.

Augmentative Communication Electronic and non-electronic devices that provide a means for expressive and receptive communication for persons with limited speech.

Computer Applications Input and output devices (voice, Braille), alternative access aids (headsticks, light pointers), modified or alternative keyboards, switches, special software, and other devices that enable persons with disabilities to use a computer.

Environmental Control Primarily electronic systems that enable someone without mobility to **Systems** control various devices such as appliances, electronic aids, and security systems in her or his room, home or other surroundings.

Home/Worksite Modifications Structural adaptations, fabrications in the home, worksite or other area (ramps, lifts, bathroom changes) that remove or reduce physical barriers for an individual with a disability.

Prosthetics and Orthotics Replacements, substitution or augmentation of missing or malfunctioning body parts with artificial limbs or other orthotic aids (splints, braces, etc.).

Seating and Positioning Accommodations to a wheelchair or other seating system to provide greater body stability, trunk/head support and an upright posture, and reduction of supports.

Aids for Vision/Hearing Aids for specific populations including magnifiers, braille and speech output devices, large print screens, hearing aids, text telephones (TDD), and visual alerting systems.

Wheelchair/Mobility Aids Manual and electric wheelchairs, mobile bases for custom chairs, walkers, three-wheel scooters and other utility vehicles used for increasing personal mobility.

Vehicle Modifications Adapting driving aids, hand controls, wheelchairs, and other lifts, modified vans or other motor vehicles used for personal transportation.

[Return to top of page](#)

General Considerations

Assistive technology (AT) can and does have a major impact on the education of many students with disabilities. There are many types of devices and services and school personnel often encounter many issues and misconceptions regarding the provision of assistive technology. The following addresses some the common misconceptions about assistive technology.

Misconception 1: AT is the "be all and end all".

Assistive technology should be viewed as a tool. This tool(s) is part of the overall goal for an individual to be able to maintain, improve functional capabilities or pro-vide access to one's environment.

Misconception 2: AT is complicated and expensive.

Assistive technology can be as simple as a pencil grip or as complex as a computer. It is important to understand the continuum of assistive technology from low technology solutions through high technology solutions. The level of sophistication of the device is determined by the needs of the individual. As a general principle the lowest level of technology that will meet the individuals needs should be first considered.

Misconception 3: Persons with the same disability benefit from the same devices.

The determination of the type of assistive technology that would be beneficial must be determined on an individual's needs and educational goals.

Misconception 4: Professionals are the best source of information on AT.

Assistive technology embraces a wide range of equipment. To make informed decisions, information from many sources/resources should be considered. There are many sources of information on AT. Some of these resources can be found in the Appendices.

Misconception 5: AT product descriptions are always accurate and helpful.

As with any product, descriptions and claims about the use or effectiveness of a particular device are not always accurate. Therefore, it is strongly encouraged that before purchasing a device, the device should be tried through a loan. Loans can be provided by Regional Assistive Technology Centers, vendors, etc. Through a loan, it can be determined if the device is appropriate for an individual.

Misconception 6: A user's AT requirements only need to be assessed once.

As an individual gains skills, and/or reaches developmental milestones it is important to realize that there will be a need to assess the child's development and assistive technology needs. Therefore, AT assessments should be considered as ongoing processes rather than one-time events.

Misconception 7: AT devices will always be used.

AT devices may only need to be used in certain environments. Also, if the device is not an appropriate match for the individual, the device may not be used at all. It is important that once a device has been purchased, appropriate training is provided for the student, family and service providers to insure the likelihood of the device will be used for intended purpose.

Misconception 8: People with disabilities want the latest, most expensive devices.

Generally, individuals with disabilities want what will be the most useful for them in order to provide them with greater access to their environment i.e. school, home, community. The latest, most expensive device is not necessarily the most appropriate or meet the needs of an individual.

Misconception 9: AT is a luxury.

An assistive technology device is what everyone uses in their life in order to be more effective, efficient or easier. For some individuals, it is a necessity in order to be able to function within one's environment.

Note: Misconception statements were developed by the Smart Exchange (1990) and described by Scherer and Galvin in their book, Evaluating, Selecting, and Using Appropriate Assistive Technology, (1996, p. 7).

[Return to top of page](#)

Steps for Determining Assistive Technology in The IEP Process

Introduction

Assistive technology needs to be considered at each step in the special education process. This section provides information about assistive technology and how it should be addressed in this process.

Question: Who should be considered for assistive technology?

Answer: The initial issue is one of consideration. All children eligible and receiving specially designed instruction through an IEP must be considered for assistive technology. The ARC documents whether or not a child is in need of assistive technology by considering a) what specific tasks the student is not able to do or participate in because of the disability or suspected disability, b) what has been tried to enable the student to complete the task or to participate, and c) if a particular strategy, or modification enables the student to complete the task or participate within the least restrictive environment.

[Return to top of page](#)

Referral

When a child is suspected of having a disability, the teacher, parent, or other professional knowledgeable about the child, completes a written referral and submits it to the Admissions and Release Committee for review to determine if the child needs further testing.

After receipt of a written referral, the Admissions and Release Committee (ARC) convenes, reviews and analyzes the referral to determine if sufficient information is available for initiating a full and individual evaluation (707 KAR 1:190).

The referral may mention a student's need for assistive technology or it may not become a recognized need until there is an analysis of the screening data or even until a full evaluation is completed. There might be some descriptions in the written referral of the student's learning problem that lead to a discussion of need for the evaluation to include looking at assistive technology.

For instance:

- The student could be a young child who has not yet developed an effective verbal means of communication. Thus, there may be a need for an augmentative communication a concern addressed in a communication functioning evaluation.
- The student might have difficulty using a classroom computer due to a physical disability and need adapted switches or a keyboard guard.
- The student may be having difficulty with self-help skills and needs an adaptation to help with dressing, grooming, or personal hygiene.

Some of these forms of support may be provided without any further need for evaluation or intervention, or might need to be provided before the evaluation as part of an intervention process to see if the accommodation itself diminishes the need for referral or influences the ARC decision-making about the type of evaluation needed.

The ARC uses existing screening data and other referral information to assist in determining the nature and extent of a full evaluation.

Note: Appendix D has an example of a screening form (AT Triggers) for potential assistive technology needs. This checklist addresses evaluation concerns for assistive technology.

NOTE: Screening data for all students is collected in the required five areas of functioning (physical, communication, cognitive, social and emotional competence and academic performance). Local school districts are responsible for screening all students. This screening data may be used by ARC to determine if evaluation in one or more areas is necessary.

[Return to top of page](#)

Determining the Need for Evaluation

The ARC uses the referral information to examine the child's current status in the areas listed below and to determine what additional information is needed for a full and individual evaluation in all areas related to the child's suspected disability. The ARC should consider evaluation for AT needs which may be a related component of one of the areas of functioning, and/or whether a more specific and extensive AT evaluation is needed in reference to one or more areas of functioning (e.g., physical functioning, communication functioning). The discussion and all decisions are documented on the Conference Summary Report. The ARC reviews and determines need for additional information in the following domains:

- a) physical functioning which includes vision, hearing, health, motor abilities and speech mechanism;
- b) communication functioning which includes speech sound production and use, receptive and expressive language, fluency, voice, and, as appropriate, augmentative or alternative communication;
- c) cognitive functioning which includes an appraisal of aptitude and the mental processes by which an individual applies knowledge, thinks and solves problems;
- d) social competence which includes adaptive behaviors and social skills which enable a child or youth to meet environmental demands and to assume responsibility for his own and other's welfare;
- e) academic performance over time which includes an educational history of the level of development, mastery or achievement and application of skills and knowledge within the following academic areas as selected by the ARC:
 1. Basic and content reading;
 2. Reading comprehension;
 3. Mathematics calculation, reasoning and application;

4. Written expression;
5. Oral expression;
6. Listening comprehension;
7. Learning preference issues such as learning style, strategies;
8. Effect of the disability on acquisition, development, mastery and applications of academic skills;

f) vocational functioning which consists of a combination of formal and informal assessment activities and includes consideration of, as appropriate:

1. General work behaviors;
2. Following directions;
3. Working independently or with job supports;
4. Job preferences or interests;
5. Dexterity;
6. Abilities;
7. Interpersonal relationships and socialization; and
8. Related work skills.

g) recreation and leisure functioning includes use of free time, maintenance of physical fitness, use of generic community recreation facilities and resources and degree of social involvement, as appropriate; and

h) environmental, family and cultural factors which include:

1. Relationship with family;
2. Relationship with peers;
3. Family's dominant language;
4. Cultural influences;
5. Expectations of the parents for the child or youth in the home, school, and community environments;
6. Services received in the community; and
7. Economic influences.

Note: Computer access and augmentative communication are common devices for which assistive technology evaluations are sought. However, it is imperative to realize there is more to assistive technology than computers and communication devices, and the evaluation process will look different for each individual, based on their specific needs. The key is in knowing the capabilities of the technology, knowing how to match it appropriately to the needs of the learner, and being able to instruct the learner to use it to the best of his/her ability (Chambers, 1997, CEC, p. 16).

Examples of AT Issues by Domain:

Physical Functioning -

Maintains appropriate posture and/or seating/positioning.

Turns door knobs, uses manipulatives, uses keyboard, turn pages in a book.

Communication Functioning-

Has understandable speech.

Able to verbally communicate needs.

Cognitive Functioning-

Understands cause/effect

Has memory and problem solving skills necessary to accomplish school/daily living tasks.

Social Competency-

Organizes/maintains school supplies and materials.

Maintains personal hygiene

Academic Performance-

Writes legibly at a reasonable rate.

Reads independently

Visually tracks along a line of print.

Performs math tasks needed for school or daily living.

Understands verbal directions.

Take notes at level needed in school or daily living.

Vocational Functioning-

Able to access everything on the vocational/ job site?

Maintains a position for extended periods of time.

Recreation and Leisure functioning-

Able to use playground equipment independently.

Takes part in activities requiring fine motor skills.

[Return to top of page](#)

Evaluation Specific to Assistive Technology

The ARC may be able to assess what is or is not working for a student instructionally in relationship to AT use to current or needed instruction, and determine evaluation criteria in order to establish whether specific assistive technology devices/services are necessary to meet the specific needs of a child.

However, the ARC may determine that they do not have the knowledge to evaluate assistive technology needs in relations to instruction. A lack of awareness of what technology exists to meet specific instruction needs could also require the ARC to seek additional support from individuals with the level of knowledge or resources necessary to assist the ARC.

An evaluation to determine appropriate assistive technology should be done in a variety of environments to determine impact on instruction (e.g., throughout the school, across curriculum areas, in community, vocational and home settings, when appropriate).

Key areas to be considered in an assistive technology evaluation include both intrinsic and extrinsic factors.

Intrinsic factors can affect one's ability to obtain valid evaluation information. Intrinsic factors relate primarily to characteristics of the individual and include:

- cognitive level,
- vision,
- hearing,
- medical characteristics,
- physical characteristics,
- academic and literacy levels, and
- language and communication skills,
- attitudes and preferences of the student regarding acceptance of an assistive technology device.

Extrinsic factors relate primarily to characteristics of the context and the opportunities for learning to which the student has been exposed, and including:

- exposure to learning opportunities,
- acceptance of technology by peers and other persons working with the student,
- identification of a range of technology options, and

adaptive behavior, including behavior at home and in the community.

[Return to top of page](#)

Use of AT During an Evaluation

General evaluation considerations should be included in the decision to evaluate should be:

- 1) in identified areas of concern related to using assistive technology currently used by the student as appropriate; or
- 2) in identified areas of concern using assistive technology services and/or devices not currently used but deemed appropriate for evaluations purposes.

Student based example of Conference Summary for Referral Meeting

A review of the referral including screening information about Mary indicates a need for an assistive technology evaluation in the following areas: Communication Functioning - augmentative and alternative communication (AAC) evaluation to assess Mary's receptive language and expressive language for potential use of an AAC device. In addition, a physical functioning assessment on motor skills will be completed to determine Mary's method of access for the AAC device.

NOTE: Although an outside/independent assistive technology evaluation is often sought, it is not always necessary. If staff are comfortable and knowledgeable in the area of assistive technology, and know what is needed for the student, they could provide a multidisciplinary evaluation of what the student needs to learn and the technology needed for the student to acquire those abilities.

NOTE: If the student is already using an assistive device, the device must be operable and used at the appropriate time(s) during the screening and evaluation process in order to obtain accurate results.

[Return to top of page](#)

The Individual Education Program (IEP)

Development of the IEP

The ARC identifies the student's needs and establishes annual goals and objectives. To do this, the ARC must function as a team in a collaborative process. A range of information must be gathered and made available to Admissions and Release Committee (ARC) members in preparation for the IEP development meeting. An IEP is developed when:

1. a child or youth has been evaluated and the ARC members have determined that the child or youth has an educational disability;

2. has been receiving specially designed instruction and is in the process of annual review; or
3. if a current IEP needs to be revised because of changes in the needs or priorities of the child or youth.

ARC members determine the need for assistive technology, using current evaluation information and the IEP information including the Present Level of Performance, Goals and Objectives, and Specially Designed Instruction by answering and documenting on the conference summary the following questions:

1. Will the child or youth be required to receive an education in a more restrictive environment if the assistive technology is not provided?
2. Will personnel assigned to any objective be unable to implement strategies and activities leading to mastery of the objective(s) without assistive technology?
3. Does the assistive technology directly affect the acquisition of skills or information identified as a goal or outcome of public education for all children?
4. Is assistive technology required to allow the child or youth access to a public school program?

If the ARC answers "yes" to any question, then there is a need for assistive technology and the services is included in the IEP.

If the ARC answers "no" to all the questions, then the ARC determines there is no need for assistive technology. (Policies and Procedures 6.0).

The documentation of assistive technology may be incorporated throughout the IEP, however, there are three places in the IEP where specific assistive technology needs commonly appear:

1. in the description of specially designed instruction,
2. in the description of supplementary aids and services (i.e. description of modifications in services provided to support student services in the delivered in the regular education program), and
3. in related services. Related services include "transportation, and such developmental, corrective, and other supportive services (including speech pathology and audiology, psychological services, physical and occupational therapy, recreation, including therapeutic recreation and social work services, and medical counseling services, including rehabilitation counseling, except that such medical services shall be for diagnostic and evaluation purposes only) as may be required to assist a child with a disability to benefit from special education" (20 U.S.C., Chapter 33, Section 1401(17), 1991) (CRF 300.16).

Example: Conference Summary of AT Need

Based on the referral, screening, and evaluation results, and a review of the IEP, Mary needs assistive technology in order to receive her education in the least restrictive environment and to access a public school program. In addition, Mary needs the AT for the acquisition of skills identified as an outcome of public education and to benefit from the specially designed instruction as identified in her IEP.

NOTE: According to the 1997 Reauthorization of IDEA (P.L.105-17) the "IEP Team shall-

(iii) in the case of a child who is blind or visually impaired, provide for instruction in Braille and the use of Braille unless the IEP Team determines, after an evaluation of the child's reading and writing skills, needs, and appropriate reading and writing media (including an evaluation of the child's future needs for instruction in Braille or the use of Braille), that instruction in Braille or the use of Braille is not appropriate for the child; -- and

(v) consider whether the child requires assistive technology devices and services" (P.L. 105-17, Sec 614(3) (b)).

[Return to top of page](#)

Components of the IEP

Kentucky Administrative Regulations (707 KAR 1:210 Section 4) require that an IEP contains specific components. A description and an example for each of the requirements is presented below. A student based example which operationalizes the concept will be presented on the left side throughout this section of the document.

Present Level of Performance

Requirement: Present level of performance is a descriptive statement written in measurable, objective terms of the child's level of performance in each of the areas: physical functioning, communication functioning, cognitive functioning, social competence, academic performance, vocational functioning, and recreation and leisure functioning. Statements must be in language understood by all ARC participants.

Example: Present Level of Performance

Excerpt from student based example (Communication Functioning): According to screening results and speech/language assessments, Mary is a 10 year old nonverbal with her oral mechanism, vision and hearing within normal limits. Mary's parents and teachers report that she has good receptive language vocabulary, is able to follow 3 step directions, and uses signs and gestures to indicate choice. Mary can not express her needs verbally. Teacher observations and peer interactions confirm Mary's peers do not understand her when she tries to communicate with them.

Impact Statement

Requirement: Impact Statement describes the effect of the disability on transition and on achievement of the student capacities and goals identified in the Kentucky Education Reform Act.

Measurable Annual Goals

Requirement: Annual goals are statements that describe what a child can reasonably be expected to accomplish within a 12 month period. The goals must relate to an identified area of need described in the present level of performance statement. The overall goals can be stated simply and very generally.

Example: Annual Goal

Excerpt from student based example: Mary will demonstrate effective communication **skills** in the areas of communicating needs and peer interaction.

[Return to top of page](#)

Short-Term Instructional Objectives

Requirement: Short-term instructional objectives are measurable, intermediate steps that will be taken to meet the goals. These steps imply that more than one objective is required for each skill area in each annual goal. These objectives will provide benchmarks for determining progress toward the annual goal.

A short-term instructional objective should address the following four things:

1. Who is the learner?
2. What is the observable behavior?
3. Under what conditions or circumstances will the behavior be evaluated?
4. What is the criterion or level of performance expected of the learner to consider the objective mastered?

Instructional objectives must make a statement about what a specific learner will be doing. An instructional objective is written for a specific individual. An instructional objective must be written to include an **observable behavior** rather than vague unseen improvement. The behavior stated in the objective must be *observable, repeatable, and measurable*. To include all three of these criteria you must be able to see or hear the behavior or a product of the behavior. Use verbs in the statement of the objective that indicate specific observable behavior. For example, "to know" the color red is not observable; "to select" the color red is observable.

The instructional objective statement must also include the **conditions or circumstances** under which the learner's behavior will be demonstrated and measured. The conditions should be the same from day to day, making it possible to determine if progress is being made and if the reason for that progress is due to the specific conditions that have been established and maintained.

Example: Circumstances/Conditions

Student based example of stated circumstances/conditions: In a social situation with same age peers, using an alternative communication system.

Example: Complete Short-Term Objective

Excerpt from student based example:

During a social situation (e.g., lunch, recess) with peers, Mary will initiate a conversation on a self selected topic, using an alternative communication system, for 3 conversational turns, in 3 out of 5 trials as observed and recorded by the teacher.

[Return to top of page](#)

Criteria and Evaluation Procedures

Requirement: Evaluation procedures include criteria for mastery and methods of measurement in each short-term instructional objective. The criteria for **mastery** and methods of measurement must also be written in the instructional objective. The criteria state exactly what level of performance is to be expected of the learner and how it will be measured. Meeting the criteria signals that it is time to move to the next objective in the instructional sequence.

In summary, instructional objectives must have four components: (1) learner, (2) observable behavior, (3) condition, (4) criteria.

Example: Criteria and Evaluation Procedures

Excerpt from student based example: ... [initiate a conversation] on a self selected topic, for 3 conversational turns, in 3 out of 5 trials as observed and recorded by the teacher

Note: It is much easier to write these objectives when a standard format is followed. A recommended format is to state the components in the following order: condition, learner, observable behavior and criteria.

[Return to top of page](#)

Specially Designed Instruction

Requirement: Specially designed instruction (SDI) describes modifications or alterations in instruction that will be provided for the student to meet each short-term instructional objective. Include, if needed, information about specially designed vocational education and physical education.

As shown in the example, of specially designed instruction for Mary, the description of the SDI is the critical component of the IEP where the characteristics of the AT are specifically described.

Example: Specially Designed Instruction

Excerpt from student based example:

An Alternative Communication System with maximum of 12 options using her finger to direct select the options in the regular class for 1800/1800 min. from 8/97-6/98.

Note: The SDI description of the AT device should only delineate the important attributes and functions of the AT device and not be based on a commercial product or vendor source.

[Return to top of page](#)

Related Services

Requirement: Related services relate directly to the specially designed instruction needed by the student to achieve IEP objectives and directly affect acquisition of essential skills or information. Related services are necessary for the student to benefit from specially designed instruction; describe the type and nature of each service (e.g., classroom activities, material adaptations, motor sensory activities); and are not to be needed solely for aesthetic or medical reasons.

The type and nature of related services are determined individually for each student by the ARC, rather than by one person on the team. Further, a physician's prescription or another agency's report which states a specific amount and frequency of services do not determine services in an educational setting. The ARC (not the physician or any one person) determines the service delivery configuration based on each student's educational needs.

[Return to top of page](#)

Initiation and Duration of Services

Requirement: Projected dates for the initiation and ending of services and the anticipated amount of time per day, average week or month for services is described for each service, specially designed instruction, and/or related service.

Example: Related Services and Initiation and Duration of Services

Type Nature Dates Amt of Time Location

Speech/ Language Augmentative/Lang. Development 8/97 - 6/99 60 min/ per week Regular Class

AT Professional Consultation Follow- up on Augmentative 8/97 - 6/98 4 visits per year Regular Class

Communication System

[Return to top of page](#)

Extent of Participation in the Regular Education Program

Requirement: Extent of participation in the regular educational program is a description that includes the program level, academic and nonacademic activities (including physical and vocational education), instructional modifications, specially designed instruction, and the amount of time for participation.

This is to include a description of the types of modifications (i.e., supplementary aides & services) needed to support participation in the regular education program. In the case of Mary, the modification is a calculator as a supplementary aid for use during math and science. In addition, there is to be a delineations of the activities and settings in the regular education program where specially designed instruction (SDI) will be provided. For Mary, certain classes are identified where her AAC device will be used as well as indicating AAC use whenever an oral response is required.

Example: Extent of Participation in the Regular Education Program

Excerpt from student based example:

Program Level: Elementary School

Amount of Time: 1800 min/week

Without Modifications: Student Code of Conduct, Assemblies/School Wide activities, Physical Education, Recess/playground opportunities

With Modifications (supplementary aids and services): Math and Science: check work with calculator supplied by the regular education teachers.

With Specially Designed Instruction: Language Arts, Math, Science, Social Studies, Library, Music, Lunch and Cafeteria opportunities. Mary will use her Alternative Communication System in all classes and activities which require an oral response. (See short term objective on page 22).

[Return to top of page](#)

Procedures and Schedule for Review

Requirement: The ARC indicates the procedures to be used to determine the progress of the child in meeting the goals and objectives by including objective criteria for achievement and procedures to evaluate progress. Further, each implementer monitors, maintains, and reports student progress toward and achievement of IEP short-term objectives on an ongoing basis and uses measurement techniques specified in the IEP for the objectives being measured.

Each IEP needs to include how the child's parents will be regularly informed of the child's progress. Parents need to be informed of progress at least as often as parents of nondisabled

children are informed of their children's progress. Parents are informed of their child's progress toward the annual goals and the extent to which that progress is sufficient to enable the child to achieve the goals by the end of the year.

In addition, the ARC sets dates on which it will review the progress of the child or your related to the established goals and objectives. This may be established by grading periods or semesters.

Example: Procedures and Schedule for Review

Excerpt from student based example of procedures and schedule for review: Meeting Date: May 22, 1997 Date for Review will be scheduled on or before May 22, 1998.

[Return to top of page](#)

Implementer

Requirement: Implementer indicates the title of the person(s) responsible for implementing each short-term objective. The ARC decides on the types of persons to be assigned (i.e., using job titles). Persons assigned must be qualified to provide instruction. The ARC presumes the teacher is responsible and assigned to the child's IEP. If the teacher is not qualified to provide some of the specially designed instruction, then a specialist must be assigned or training must be provided to the teacher/implementer.

Example: Implementer

Excerpt from student based example of Implementer: Speech/Language Pathologist and Augmentative Communication Specialist.

[Return to top of page](#)

Transition and Technology

A child's transition plan needs to be considered by the ARC prior to developing and implementing a child's IEP. The process of moving a child from one program to another is what transition is all about, whether that occurs from First Steps (0-3) to preschool, to elementary school, to middle school to high school or to post secondary environments. As a student moves from elementary to middle school, and middle school to high school, a coordinated set of activities must be conducted. Within these transitioning activities, issues of student age, age-appropriateness, physical maturation, changes in the types of environments in school and non-school settings in which the student participates needs to be addressed.

Including Assistive Technology in the Transition Process From First Steps to Preschool

The process for transitioning from First Steps to a Public School preschool program involves the following steps:

1. Transition Conference/ IFSP Transitioning Planning at least 90 days prior to a child's 3rd birthday
2. Referral to Public School for Special Services
3. Evaluation Process
4. Eligibility Determination in which either the development of an IEP and program placement will be determined or linkages with community services (e.g., Headstart, Private Daycare, etc.) will be provided.

(Taken from: A Step by Step Family Guide for Transition Into Preschool, Kentucky Early Childhood Transition Project, 1996)

First Steps Checklist of Questions to Ask during Preschool Transition

- o Has the IFSP been kept updated as individual goals are met and legislation changes?
- o Do school representatives talk with students and parents about educational and assistive technology availability?
- o Has assistive technology been considered in my child's IFSP and transition plans?
- o Is exposure to specific programs and options provided to families?
- o Is there a representative who can help us take advantage of available resources, preschools and assistive technology?
- o Has a primary service coordinator and/or assistive technology specialist been involved in the development of the transition plans?
- o Does the development of an IEP include assistive technology devices and services?
- o Have state and federal laws that offer assistance in training and rehabilitation been utilized?
- o Have issues of assistive technology and educational site modifications been addressed with potential educators/administrators?
- o How will the assistive technology equipment be returned to the First Steps system?

Including Assistive Technology in the Transition Process to Planning From Schools to Adulthood

During each change, assistive technology issues related to equipment, training and successful implementation need to be planned for in terms of:

how this technology will relate to transition success (e.g., use of a communication device that needs to be tailored to performance in a school or job setting, etc.)

how the technology will be able to follow the student from each school setting and then to post-school settings and

how will financing be arranged (e.g., selling device to another agency, Medicaid reimbursement, interagency agreement, employer support, status of any maintenance agreements, etc.)

continued appropriateness of the technology for use in the student's school or post-school settings (e.g., device may be too stigmatizing to student, not mobile enough for job requirements, student may need new or different device, etc.)

what training will be needed and who will do it for those who will be supporting the student in the school or the post-school settings and how to connect them to the training source (e.g., need for directions from an assistive technology specialist, OT/PT or SLP)?

The Admissions and Release Committee needs to provide documentation of considering the need for assistive technology for each student with a disability based on its relation to implementation of the IEP. If assistive technology has been an identified need for any student of high school age, there needs to be a plan for how the technology will be handled during this process of planning for transition to life after school as outlined in the following checklist.

Checklist of Questions to Ask in the Transition Process - Planning From High School to Adulthood

- Has the IEP been kept updated as individual goals are met?
- Have school representatives talked with students and parents about vocational, post-secondary education or adult living opportunities?
- Has assistive technology been considered in the child's IEP's and transition plans?
- Are students provided exposure to specific jobs and places of employment?
- Is there a representative who can help take advantage of available resources, employment and post secondary education and opportunities?
- Does the development of an Individual Work Rehabilitation Plan (IWRP) include assistive technology devices and services?
- Have state and federal laws that offer assistance in training, rehabilitation and eventual employment been utilized?
- Have issues of assistive technology and work site modifications been addressed with potential employers?
- Is there a process for how assistive technology devices will transfer to, and/or purchased by another agency to support post secondary activities?

Some of the AT transition issues are clearly a part of what needs to be addressed in an interagency transition planning meeting where the student's transition plan (i.e., Student Career /Transition Plan and Addendum for Students with Disabilities) is being completed along with specifics of each agency's responsibilities in the process. Some of the agencies that may be involved are Vocational Rehabilitation, Employment Services, post-secondary education staff (e.g., Kentucky Tech, Community College or University). Some of these concerns cannot be adequately met without some opportunity to work with the student, their parents and others in targeting each of the community, vocational, home and leisure sites that the student has listed on their transition plan, and then looking at each in terms of use of their current assistive technology. Examination of these situational needs could also lead to identification of assistive technology which is presently not being used by the student, but that will be essential to their successful transition to a particular setting (e.g., worksite modifications needed for specific jobs).

Note: Transition from School to Post School Activities

Transition Services are defined in IDEA as:

"A coordinated set of activities for a student, designed within an outcome-oriented process, which promotes movement from school to post-school activities, including post-secondary education, vocational training, integrated employment (including supported employment), continuing and adult education, adult services, independent living, or community participation. The coordinated

set of activities must be based on the individual student's needs, take into account student's preferences and interests; and include instruction, community experiences, the development of employment and other post-school adult living objectives, and if appropriate, the acquisition of daily living skills and functional vocational evaluation."

"Beginning at the age of 14, and updated annually, a statement of the transition service needs of the child under the applicable components of the child's IEP that focuses on the child's courses of study (such as participation in advanced-placement courses or a vocational education program and beginning at age 16 (or younger, if determined appropriate by the IEP Team), a statement of needed transition services for the child, including, when appropriate, a statement of the interagency responsibilities or any needed linkages" (P.L. 105-17, Sec. 614 (d) (1).

[Return to top of page](#)

Implementing the IEP (Service Delivery)

After an IEP is finalized for a student, the implementers develop instructional plans for implementing the IEP and also for documenting on-going progress. Student performance is recorded to specifically relate to the short-term objectives being addressed at a particular time. Data is recorded on a regular basis by the person(s) responsible for implementing the objective.

As the process continues in the assessment, procurement and application of AT for the student, the critical component of classroom application takes center stage. Assistive technology tools and services are viable in the context of their usage. A tool that sits on the shelf or teaching staff with little access to knowledge or training in AT use does not fulfill the spirit or intent of the law.

[Return to top of page](#)

Planning for Assistive Technology Implementation

The functional, daily and integrative use of assistive technology across learning environments will ensure success in meeting IEP objectives. While this manual cannot address specific applications, a working structure for classroom implementation can be designed.

To ensure success the ARC should consider the development of an implementation plan that will outline the specifics . The IEP is the tool that insures special education services. As an adjunct to the IEP, an assistive technology plan outlines how the local school will implement the needed assistive technology. This is critical as more students move from a self-contained learning environment with fairly consistent teachers and therapists to an inclusive school environment with interaction with numerous teachers, peers and support staff. Developing a plan for technology access and use will then ensure that the student maximize his/her learning time.

Note: If the ARC determines that a particular assistive technology item is required by a child or youth with a disability to implement the IEP, the technology shall be provided including (707 KAR 1:230):

- a) Evaluating the needs of the child or youth with a disability, including functional evaluations in the customary environments;
- b) Purchasing, leasing, or otherwise providing for the acquisition of assistive technology devices;
- c) Selecting, designing, fitting, customizing, adapting, applying, retaining, repairing, or replacing assistive technology devices;
- d) Coordinating and using other therapies, interventions, or services with assistive technology devices, such as those associated with existing education and rehabilitation plans and programs;
- e) Training or technical assistance for a child or youth with a disability, or if appropriate, the family of the child or youth;
- f) Training or technical assistance for professionals, including individuals providing education or rehabilitation services, employers, or other individuals who provide services, to, employ, or are otherwise substantially involved in the major life functions of children with disabilities; and
- g) Making the technology item available for home use or use in other environments if required for the provision of a free appropriate public education for the child or youth.

The implementation plan centers around responsibility for day to day operation, such as, who will make sure the equipment is up and running, what will happen when it needs repair, and what the district will provide in the interim if they are going to seek outside funding to purchase a device. It is important to identify who is responsible for monitoring each aspect of the implementation of assistive technology plan (Bowser, 1991).

On the following page, a checklist is provided for ARC to use in developing a plan for the successful implementation of assistive technology as specified in a child's IEP.

The checklist is intended to guide the ARC in determining how the assistive technology device and/or service will be implemented throughout a child's day. From this checklist, a plan for implementation can be developed.

Assistive technology is something that typically is used by the student across school settings as well as in the home environment. Each person who works with the student needs to understand why the student is using it and how it operates. This can be another example of an integrated related service, where the specialist (e.g., assistive technology specialist) collaborates with teachers and others in determining how the device will need to be used during daily routines and to clarify the role of each person in facilitating its proper use by the student. While the specialist may be needed initially to train and/or model the kinds of things other staff will need to be doing to foster appropriate usage, the specialist will fade their support as other school staff demonstrate the ability to assist the student independently. There will be a continued need for school staff and an assistive technology specialist to communicate with each other regarding student progress and to resolve any problems in implementation as well as to evaluate the current application of assistive technology.

A major implication for school districts is the need for time to be set aside for the staff to work together. When staff is encouraged to work together as a team and time is set aside for team members to communicate, the likelihood that assistive technology will be an effective tool is increased (Todis & Walker, 1993). In addition local building staff will need to be aware of and connected with other resources at the local, regional, and state level to turn to for information and support in order to develop their own professional expertise and the capacity of the organization in the complex area of assistive technology (Garmston & Wellman, 1995)

Assistive Technology Implementation Checklist

Directions: Complete one checklist for AT use at SCHOOL or at HOME

Device and/or Service

- o Determine the specific device/service
- o Identify the person(s) responsible for obtaining the device/service
- o Identify the provider for the AT service
- o Determine if AT is for home use
- o Determine how AT will promote inclusion of the student in the regular education environment

Trial Period for Implementation

- o Determine a trial period for implementation
- o Determine how the device/service will be obtained
- o Determine a method for data collection
- o Meet at the end of the trial period to review implementation considerations

Training Needs - Determine training needs for: o Student o Staff o Parent/Caregiver o Peers

- o Determine who will provide the training (inside or outside resource)
- o Determine a schedule for training

Follow up Needs- Determine training needs for: o Student o Staff o Parent/Caregiver o Peers

- o Determine who will provide the training (inside or outside resource)
- o Determine a schedule for training

Maintenance of Equipment

- o Identify person(s) responsible for maintaining equipment
- o Identify person(s) responsible for day to day setup and upkeep of equipment
- o Identify procedures for upkeep, repair and replacement
- o Determine the back up system
- o Determine the process for accessing the back up system

Monitoring AT Use

- o Identify person(s) responsible for data collection
- o Identify characteristics of appropriate AT use for the student
- o Document AT use

Technical Assistance

- o Identify person(s) responsible for providing on-going technical assistance (inside/outside resources)
- o Determine level of technical assistance needed
- o Identify procedures for requesting technical assistance
- o Identify person(s) responsible for customizing the device/service

Working Together for Implementation

- o Determine how AT services will be coordinated with all personnel
- o Determine a schedule for personnel to implement AT services
- o Determine how AT will promote inclusion of the student in the regular education environment
- o Periodic review of implementation considerations based on data

Note: Integrated Services

An integrated related services model is based upon related services such as OT, PT, SLP, etc., being embedded in instruction across the student's daily routine and activities. AT services/devices are extremely effective when implemented in this manner. (See Guidelines for the Delivery of Occupational Therapy and Physical Therapy Services in Educational Settings)

[Return to top of page](#)

Evaluation of Implementation

The following questions have been formulated to assist in monitoring the implementation of Assistive Technology related IEP goals. These are not an exhaustive set of questions, but are primary questions that the ARC should consider and ask when reviewing a child's IEP program.

Implementation Questions

1. Is the utilization of the recommended AT periodically reviewed?
2. If problems are noted, does staff know how to address them?
3. Are periodic reviews documented?
4. Are the assistive technology devices and/or service that were identified by the IEP team being provided?
5. Are the assistive technology devices and/or services that were provided being utilized?
6. Are the assistive technology devices and/or services functioning as expected?
7. Have long range plans, including transition, been made regarding students' use of AT?

8. Do transition team members (including transitioning from First Steps to primary school) know what AT is, what AT is in use, and what the legal requirements are for school districts and for infant/toddler and adult service agencies (as appropriate)?

Example: Plan for Implementation

AT device specified in IEP: Specific Device: Hawk (augmentative communication device)

Person Responsible: Mr. Brown (DSE) will purchase: Ms. Jackson (principal) will be responsible for maintenance, upkeep and technical support.

Specific Service: Consultation 4 times per year by AT Consultant - Mr. Brown will arrange.

Training and Follow-up: Ms. Trabog, SLP, will arrange and provide training for instructors, student, parents, caregivers within one week of receipt of Hawk: Follow-up will occur one month later/then ongoing as needed.

Trial Period with Documentation: One month-data sheet used as monitoring progress.

Practice Opportunities: Teachers will begin use of the Hawk during language arts activities (e.g., calendar, group response time, picking interest stories), with Ms. Fuentes (4th grade teacher) integrating the Hawk during library and science times.

Monitoring AT use: Ms. Trabog will follow-up daily for the first 2 weeks, to monitor progress, and suggest further uses of the Hawk. At the end of the trial period, the ARC will hold a conference to review Mary's progress and determine if the Hawk is working with Mary and meeting her needs. Teachers and parents will communicate via daily notebook about the types of overlays Mary needs. Ms. Trabog will provide the overlays.

Back-up system: Ms. Trabog will develop a picture communication device.

AT use at home: Mary needs to use Hawk at home to learn to communicate more effectively, and for consistent practice.

[Return to top of page](#)

Issues for Review of the IEP

The ARC meets at least annually to review progress and determine the need for a new IEP. At this meeting the steps taken initially to develop the original IEP are repeated. The student's present level of performance must be reassessed. This reassessment includes a review of the on going progress (to determine the student's performance on goals and objectives established for the previous year) and any formal or informal assessments that were conducted. The team determines which objectives have been met, which problems remain and what new concerns/priorities have developed. Based on this information the team decides priorities for the next year and develops new goals and objectives.

NOTE: After new goals and objectives are established, the need for specially designed instruction and related services is determined. **(NOTE:** the Admissions and Release Committee does not

determine this need for service provision prior to the completion of new goals and objectives). The ARC must be careful to reconsider the strategies and approaches used in the past year and consider possible changes. The provision of special services for one period of time does not necessarily mean that the student will require these same services throughout his or her educational career. Changes in the level of services provided should occur as goals and objectives change.

[Return to top of page](#)

Part II - Supporting Resources

Professional Development

In the area of assistive technology schools are faced with building staff capacity to deal with a broad continuum of needs for students, including those identified with the most limiting cognitive, physical and/or sensory disabilities to those with mild & moderate disabilities. These students' educational environments are also as varied as the students themselves. Full inclusion, resource room, self-contained room, and community based work settings are some examples of the educational environments in which students spend all or part of their instructional day. Within these settings are the educational staff-certified and classified - that support them. Providing the educational staff with the professional development needed to maintain and increase proficiency in their job duties is a continuing role of school districts as local schools implement school plans that reflect their building and classroom needs.

Although it may seem that special education issues only impact a minority in a school, all school staff are equally accountable for student outcomes, especially since KIRIS scores effect the whole school. This means special educations professional development issues [e.g., legal issues, IDEA compliance, KIRIS testing (regular and alternate portfolio special education student) and staff proficiencies in educational methodologies and strategies] will have a major impact on staff development for everyone in each school. General awareness of special education issues for all staff as well as specialized skill development for specific school staff must be addressed by districts and local schools when planning professional development.

The educator must have a conceptual framework for assistive technology as it relates to the concept of technology access and usage by all students.

Professional development in the area of assistive technology can be viewed as a pyramid with a strong base supporting the professional needs of staff educating all students, including students with educational disabilities.

Figure 1 on the following page is a professional development model as it relates to assistive technology.

Professional development for each section of the pyramid could have a different strategy depending on the knowledge base being defined. Each professional development strategy has its strengths and weaknesses and by understanding these local schools can tailor their professional development to local needs.

Providing appropriate levels of professional development in assistive technology to a diverse group of educators will demand a close appraisal of the various types of strategies for delivery.

Note: Figure One Graphic not available in text version

Level 5. Though not specifically part of professional development, but integral to each student's education, how will parents or caregivers be part of this process?

Level 4. What are the educational needs of the members of the ARC as the IEP is being written and then implemented? To include specially designed instruction that use assistive technology strategies or tools, what knowledge base will be required? For specific types of assistive technology, (e.g., Brailers or augmentative/ alternative communication devices) what will be needed?

Level 3. What are the educational needs of the educators and related staff personnel who will be evaluating students for a district or a school? What knowledge in assistive technology must the psychologist, therapist, teacher, counselor or any other ARC member bring to the evaluation process?

Level 2. Who are the educators that will need more than a foundation? What are the needs of those educators (classified and certified) that will be instructing students on a daily basis who have identified assistive technology strategies as part of their learning strategies?

Level 1. What will the foundation of this conceptual framework look like? What body of knowledge will this contain? How will all staff at a local school acquire this? What professional development strategy/model will best deliver this knowledge base? Why is it in the best interest of all educators to have this conceptual framework?

[Return to top of page](#)

Assistive Technology & KIRIS

The Kentucky Instructional Results Information System (KIRIS), On-Demand requires all 4, 5, 7, 8, 11, and 12 grade students to be tested in reading, mathematics, writing, science, and social studies inclusive of the KERA learning goals and the 57 Academic Expectations adopted by the State Board of Education. The KIRIS Student Assessment and Accountability Program is unique in its philosophy and implementation among national school reform efforts. Kentucky is the only state to include **all** students in their statewide accountability and assessment system. The statewide assessment and accountability system specifies that students with disabilities will participate in the state assessment process in one of three ways.

First, they may participate in all of the standard state assessment components (e.g., essay testing, group performance events, and math and writing portfolios) with no adaptations or accommodations.

Second, if accommodations/adaptations are specified in the IEP or 504 plan for instructional use, they are also allowed in testing, as long as they do not change the purpose of the testing (e.g., use of extended time, readers of the tests, Braille, alternative mode of response such as use of augmented system, etc.).

Third, for students with severe cognitive disabilities, participation can be through the "alternate portfolio" assessment. This last item is a holistic portfolio assessment that is based on creating a portfolio of evidence of how the student's performance reflects attainment of the state's 57 academic expectations.

There is a direct role that assistive technology may have in its use as an accommodation or adaptation for some students in taking the KIRIS assessment. A student with disabilities may use special equipment, including assistive/adaptive technology, described on their IEP or 504 Plan which are part of the student's regular course of instruction. Some examples of AT that may be used as accommodations during KIRIS testing are:

- amplification equipment,
- noise buffers,
- magnifying devices,
- a non-calibrated ruler or template, or other similar devices to assist in maintaining visual attention to assessment items;
- communication boards/devices,
- word processors,
- talking calculators,
- speech synthesizer,
- close-captioned or video materials,
- audiotaped directions,
- auditory trainer,
- use of a Cranmer Abacus to perform calculations,
- text-talk converters.

The use of the assistive technology is not to be determined just for KIRIS assessment purposes. The accommodation must be one that is clearly in the IEP and 504 plan and has been used for instructional and assessment during classroom activities.

NOTE: For information regarding KIRIS Assessment procedures for students with disabilities visit the KDE Web site at:

<http://www.kde.state.ky.us/oet/customer/at/>

Example: KIRIS AT Accommodation

A student may need a word processor such as an AlphaSmart® to complete certain written assignments in the classroom. This same assistive technology can then also be used during KIRIS assessment tasks related to development of portfolio entries. A Braille writer may be used to compose written responses, however, the final written product must be translated by the student using a word processor, typewriter or by dictating the response in accordance with the IEP or 504 Plan. A spell check program may be another part of the technology that can help the student complete a more appropriate portfolio. Another student may need an electronic communication device in the classroom to provide an auditory response to teacher questions

during an oral exam, which sets the stage for use of this same communication system during the KIRIS process.

[Return to top of page](#)

KENTUCKY EDUCATION TECHNOLOGY SYSTEM

Through a powerful voice, video, and data network, Kentucky is providing equal access to learning opportunities to every student and teacher as a strategic aspect of statewide systemic education reform, regardless of where they live or the relative wealth of the district. The Commonwealth believes that this implementation demonstrates rigorous adherence to the strategic principals of equity and universal access to learning for all citizens as called for in the 1990 Kentucky Education Reform Act. Guided by the five-year Master Plan for Education Technology, the Commonwealth of Kentucky is moving forward with the Kentucky Education Technology System (KETS) to raise student achievement and increase school success. Since adoption in the Fall of 1992, the vision of the Master Plan is being implemented and is funded by legislative appropriations to a special Trust Fund matched by local dollars. KETS is deploying voice, video, and data technology to each of the 35,000 preschool through grade 12 public school classrooms in the state to assist teaching, learning, and school administration. The clients of the system are Kentucky's 572,930 students and 39,056 teachers among the 1,388 schools and 176 districts. The system also extends to the secondary vocational education schools, Family Resource/Youth Services Centers, Regional Service Centers, and the Department of Education. The state's role in this process is to provide four basic resources and to ensure that they are available to every local education community on an equitable basis: leadership in planning and standards-setting; a powerful network infrastructure; a stable funding stream; and locally available consulting, training, and support. Today, the technology gap between Kentucky's richest and poorest districts is closing rapidly, bringing every school up to a set of high standards but imposing a ceiling for achievement and innovation to no one.

A highly strategic component of statewide systemic education reform, the Kentucky Education Technology System is making huge strides in breaking down traditional barriers to teaching and learning as it helps the Commonwealth strive toward the goals of the 1990 Education Reform Act: '¼ to ensure for each child an internationally superior education and a love of learning¼'

[Return to top of page](#)

The KETS Assistive Technology Matrix and Purchasing

The Kentucky Education Technology System provides every public school student and educator in Kentucky the opportunity to access KETS technology and information resources through the statewide network. In the event that a person has a disabling condition, which prevents using KETS standard equipment, KETS funds may be spent for the appropriate adaptations or assistive

equipment which will provide equity of access for that individual. **KETS funds may be used to purchase assistive technology when it provides access otherwise unavailable to students with disabilities to access the KETS statewide network or enhances a student's use of a KETS component such as a workstation.**

When a district identifies a need to purchase assistive technology that is appropriate for KETS funds, an Assistive Approval Request Form (found Appendix B) is used. This form is posted for downloading on the KDE World Wide Web (WWW) site. It is to be completed jointly by the District Technology Coordinator and the local Special Education/Section 504 Coordinator. This completed form is submitted to the Regional Service Center office for approval by the KETS Coordinator and Regional Exceptional Children Consultant (RECC).

One component of the AT form includes designated items as KETS "pre-approval" status. Pre-approved status indicates that the KETS Office has determined KETS funds can be considered to purchase the device as it provides access otherwise unavailable to the user.

Information regarding AT devices can be found on the AT Matrix. The AT Matrix is a collaborative effort between enTECH and the Office of Education Technology. Devices are evaluated at the Education Technology Assistance Center (ETAC) four (4) times a year. The purpose of this evaluation is to;

1. determine the compatibility of the device and the workstations under consideration for purchase through the Commonwealth;
2. determine pre-approval status of the device; and
3. provide information to schools regarding assistive technology devices that may be appropriate for purchase.

In the event a district feels its request for access to KETS funding of assistive technology has been wrongly denied at the regional level, a waiver may be requested. Waivers are available for review of unique situations. For waiver information and details, contact Associate Commissioner for Education Technology, at (502) 564-6900.

Note: KETS funds are only one source of funds that can be used to provide AT equipment to students. Funds from Part B IDEA or SEEK funds may also be used to purchase AT equipment. The reader is referred to the funding section for further information on funding resources.

The AT matrix is a "**living document**" since there are literally thousands of products and devices available for purchase. Therefore, it should not be assumed that if a product is not on the AT matrix, that product does not meet KETS guidelines for purchasing. The product may not have been evaluated for inclusion on the AT matrix.

Examples of assistive technology devices that may be used for purchased with KETS funds are adapted keyboards, screen magnification programs, switch access devices, on-screen keyboards and Braille printers. Information on specific AT equipment on KETS compatibility & KETS funding is provided in Appendix E. A more comprehensive listing can be found on the KDE Web page: www.kde.state.ky.us/bmss/oet/dcsc/AT/Assistive_Technology.html.

[Return to top of page](#)

FUNDING

Two reasons that assistive technology is under-utilized are lack of information and lack of funding. This section discusses funding for school related purposes as well as for non school AT needs. It also provides information and resource for accessing funds to support a variety of AT devices.

FUNDING FOR SCHOOL BASED PURPOSES

In order to provide a person-centered approach to funding, this section starts by focusing on a student with a disability named Mary. Mary needs an augmentative and alternative communication (AAC) system. Mary's ARC, which consists of her parents, therapists and school staff, has gone through the assessment and IEP process and decided which AAC device is most appropriate for Mary's needs.

Once the ARC has identified the AAC device, the local school district explores various sources for funding to assure the IEP obligation is fulfilled. **Regardless of funding availability, if an IEP reflects a need for AT devices or services, then the district remains financially obligated to provide the AT as described.** The district may examine alternative sources of funding as long as implementation of the IEP is not inhibited or prevented.

When identifying potential funding solutions it is important to know that some funding sources limit where an item can be used or where and how a service can be delivered. School personnel need to remove territorial boundaries (e. g., agencies, parents and insurance companies) and look at the child as a whole. Picture the child at school, at home and in the community. How can assistive technology be maximized to benefit the child across all domains?

This section will identify possible funding sources available for an individual with a disability. Funding examples, based upon the above student case study will be highlighted in the boxes found on the left side of the page.

Note: A good place to identify potential funding solutions is [The Buck Starts Here: A Guide to Funding Assistive Technology in Kentucky](#) available from the KATS Network or any of its regional centers. This booklet gives pertinent information about specific funding sources and provides step-by-step instructions for application process and appeals (if necessary). It also includes potential pitfalls that could be encountered. In addition to the funding streams listed above there are many private foundations and trust funds listed that can assist with funding individual assistive technology devices and services.

[Return to top of page](#)

Education Funding

Funding may be available through the following:

SEEK (Supporting Excellence in Education in Kentucky) Funds:

SEEK funds consist of state dollars generated through the regular SEEK program based on each student's ADA (Average Daily Attendance) and Exceptional Child Add-On funds based on the severity of disability. In accordance with KRS 157.360, there are three levels of Exceptional Child Add-On funding:

Communication disability (Speech only)

Mild disabilities (specific learning disability, mild mental disability, physical disability, orthopedic disability, other health impaired, developmental delay)

Moderate to Severe Disabilities (functional mental disability, emotional-behavioral disability, deaf-blindness, hearing impairment, visual impairment, autism, traumatic brain injury, multiple disabilities.

The number of children that are funded for each district under the Exceptional Children Add-On is determined by the district's December 1 child count submitted annually to the Division of Exceptional Children Services. While these funds are generated based on the categories of students with disabilities with IEPs on December 1, these funds come to the districts as part of their "general fund" dollars and are not earmarked as special education funds. Although the exceptional children add-on dollars are not necessarily restricted to be directly used with students with disabilities, federal requirements specify that districts must budget for the upcoming school year at least as much as was spent in non federal dollars the preceding year in providing services to students with disabilities, unless the district child count has decreased. Districts must spend at least as much in state funds on every student with disabilities (average expenditure) as on non-disabled students (average per pupil expenditure). This is to ensure that federal dollars are only being spent on the excess cost of serving students with disabilities.

IDEA Part-B Federal Funds

Each state receives a fixed amount of IDEA funds per child with educational disabilities based on the count submitted on December 1 of each year. The funding for the coming year is based on the child count of the previous school year as of December 1. Receipt of Part-B funds requires that the district submit an application for these funds to the Kentucky Department of Education describing how the funds will be used. If a district has an identified need or anticipated need for funds to be set aside for support of assistive technology, then this is included in their budget when the application is submitted each year.

Student Example: Education Funding

If Mary's AAC system is written into the IEP, the local school district would be fiscally responsible for supplying that item and/or service per the Individuals with Disabilities Education Act (IDEA). Use of Part B and/ or SEEK to pay for AAC device.

Kentucky Education Technology System (KETS)

The Kentucky Education Technology System provides every public school student and educator in Kentucky the opportunity to access KETS technology and information resources through the statewide network. In the event that a person has a disabling condition, which prevents using KETS standard equipment, KETS funds may be spent for the appropriate adaptations or assistive

equipment which will provide equity of access for that individual. KETS funds may be used to purchase assistive technology when it provides access otherwise unavailable to students with disabilities to access the KETS statewide network or enhances a student's use of a KETS component such as a workstation.

Example: In addition to Mary's dedicated AAC device, Mary's ARC has decided that a memory back-up system is needed. This system will allow the teacher at school to save the programming done on Mary's device to a computer floppy disk. While KETS funds assistive/adaptive computer hardware and software, it is not a funding option in this case. KETS funds for assistive technology are to be used for computer workstation accessibility option. For more information on KETS Funding see KETS and AT Section.

Textbook Funds:

The Kentucky Department of Education now allows teachers to purchase technology software with textbook funds. Contact the Kentucky Education Technology System (KETS), Customer Support Division, (502) 564-7168 for information about electronic instructional materials (EIM) or visit the KDE web site at: <http://www.kde.state.ky.us/bmss/oet/dcss/eim/eim.html>.

Medicaid/School Based Health Services

School-Based Health Services are covered services included in an IEP developed according to the requirements under IDEA and Kentucky Administrative Regulations. A school based health services is considered medically necessary when the following four (4) conditions are met:

1. it addresses a medical or mental disability
2. it assists the child to benefit from special education;
3. it is included in the child's IEP as developed by the ARC; and
4. it is provided in accordance with the IEP (Plan of Care) (School-Based Health Service Manual, p.7).

If Medicaid funds are used to support the costs for assistive technology, then the device becomes the property of the child, not the school district.

Medicaid Community Based (Non-School) Funding

If the school district is not a medicaid provider, consideration can be given to medicaid funding through community-based sources such as Home-Health Services, as long as the parent is in agreement. This may require a physician's order for the device which verifies "medical necessity" for the medicaid program. If the parent chooses not to pursue non-school funding sources, the district must still provide funds to meet the IEP obligation.

Services or equipment are medically necessary if "the item is part of the physician's course of treatment and when a physician is supervising its use directly. Note: a therapist or other appropriate individual may be providing the treatment, but the treatment has to be prescribed by a physician"(KATS Network, p. 11).

A letter of medical necessity from a physician, physical therapist, speech therapist or other qualified individual should include:

Patient's history Diagnosis and prognosis

Medical justification for each item

Description of the benefit to the patient Length of time patient will need

the item

Student Example: Medicaid Funding

If Mary is a Kentucky Medicaid recipient and the school is an approved Medicaid provider, Mary's AAC device might be funded by the School-Based Health Services Program. Evaluative, diagnostic, preventive and treatment services funded by the School-Based Health Services Program are: nursing services, audiology services, speech/language services, occupational therapy, physical therapy, mental health services, incidental interpreter services, assistive technology devices, transportation, and orientation and mobility services.

Medicaid will reimburse the school system for a portion of the cost (approximately 70%) of the evaluation and the augmentative communication device if it is written into the IEP and provides the maximum reduction of physical or mental disability, to allow for functioning of the recipient to his best possible level, to prevent the loss of current functional level, or to correct any defects of conditions. (School Based Health Services Manual, 1996). Assistive technology evaluations by OT, PT, or SLP are reimbursable by Medicaid. For reimbursement for evaluation by Assistive Technology Practitioners, Kentucky Medicaid must preapprove their evaluation services.

Private Insurance

Private insurance companies are utilized by a great number of individuals to pay for assistive technology. The guidelines for purchasing such equipment, however, differ on a company-by-company and/or policy-by-policy basis. Whether or not assistive technology is covered is based on by the way the policy is written and how the insurance company determines its obligations based on that policy. Generally speaking, insurance companies are more likely to pay for technology that is medically needed or technology that can significantly improve one's condition so that other maintenance and health costs are reduced.

Typically insurance companies only pay 80% and the policy holder is responsible for the remainder. **IF APPROVED BY THE ARC**, school systems can pay the remainder when the child needs to use the device at school and at home. As with the school based program, the child/family owns the device if funded by private insurance.

[Return to top of page](#)

Vocational Rehabilitation Funding

Two major sources of funding for assistive technology devices under the provision of Rehabilitation Technology may be sought through the Department of Vocational Rehabilitation and the Department for the Blind. **Rehabilitation Technology** means the systematic application of technologies, engineering methodologies, or scientific principles by individuals with disabilities

in areas which include education, rehabilitation, employment, transportation, independent living, and recreation. The term rehabilitation technology includes rehabilitation engineering, assistive technology devices, and assistive technology services. These resources may be sought during the high school transitional planning process as well as providing services to post secondary students and adults if the rehabilitation technology is considered necessary to prepare for, enter into or engage in gainful employment. The transition planning committee may consider contacting their local Rehabilitation Counselor regarding the provision of rehabilitation technology for students with disabilities, as deemed appropriate. For further information, contact the Department of Vocational Rehabilitation or the Department of the Blind.

Student Example: Vocational Funding Resources

If Mary is getting ready to transition from school to work or school to college, the Department of Vocational Rehabilitation might be a potential funding source for her AAC system if it is considered necessary to prepare for, enter into or engage in gainful employment. The Department for the Blind provides the same type of services as Vocational Rehabilitation but would not be a possibility to fund Mary's device because she does not have a visual disability.

[Return to top of page](#)

Funding Sources for Non-School Related AT Needs

These funding resources generally will not fund school related assistive technology devices. However, these funds assist in meeting non-school related AT needs of an individual.

Special Services Equipment Fund

This funding source is coordinated through the Kentucky Department of Mental Health/Mental Retardation Services. It consists of a combination of funds from the Division of Mental Retardation and the Kentucky Developmental Disabilities Council. Access is gained by completing an application for submission to the Division of Mental Retardation.

Funding requests are reviewed on a case-by-case basis. The maximum request is \$2,500 per year. Types of equipment that has been funded include specialized equipment that generally is unobtainable through other funding sources. Documentation of need from a physician, or therapist strengthens the application.

Student Example: Special Services Equipment Resources

This fund might pay for an augmentative communication device for Mary if as an adult she is diagnosed with mental retardation or has a developmental disability.

Supported Living

Supported Living is a program designed to provide support to individuals with severe disabilities in order that they may continue to live in the community. The program can provide or purchase any service that the individual requires to remain in the community, as long as it does not supplant another source. Assistive technology that is related to independent living can be included as a needed service.

Student Example: Supported Living Funding Resource

This program might pay for Mary's communication device if it is consistent with the Supported Living Council's priorities and can help Mary remain in the community.

Private Foundations

There are many private resources in the Commonwealth, but they have restrictions on what they will provide, have widely varying eligibility requirements, and the resources available to them are limited. Some groups limit their giving to specific disabling conditions. Some groups will concentrate their resources on a particular age group. Many groups will have financial need requirements and may limit their giving to a specific geographical area. Therefore, checking with each source on their particular eligibility requirements is recommended.

Student Example: Private Foundation

Mary's request for an augmentative communication device must match the mission of the foundation to be funded. An advocate for Mary might need to do both a written request and presentation to the foundation's board.

Individual and Local Grants

Quite often funds can be found in unexpected and overlooked places in your own community. Some possibilities are:

Local real estate, banking (check with a Trust Officer), manufacturing, technology, professional services or any other concerned companies or local units of national companies

Local parent-teacher organization

Private family foundations or wealthy individuals known for charitable giving to libraries or hospitals in your area

Community, city and regional non-profit organizations that fund projects specific to your area

Local civic organizations including the Chamber of Commerce, Lions, Kiwanis, Rotary Clubs and others

School and community fund-raisers, book fairs, grocery receipts, bake sales

In addition to federal funding programs there are a number of education related grants, corporate technology donation programs and funding options that rehabilitation professionals and school districts should consider. The Foundation Directory, National Guide to Funding for Elementary and Secondary Education and the Corporate Giving Directory are available at larger public libraries and are another source of information on foundations and their intended purposes.

[Return to top of page](#)

RESOURCES FOR THE DEVELOPMENT AND DELIVERY OF A FUNDING REQUEST

When assistive technology works well for a child, more than likely, no single funding source was responsible for supplying everything. Multiple funding resources have become more the rule than the exception. Bringing the sources together takes good consumerism, to choose the right assistive technology at the right price and using all available financial resources.

After possible funding sources are identified, the actual funding request needs to be developed. This funding request must clearly present:

- (1) specifically what is wanted;
- (2) information related to who will benefit and how, and
- (3) various supportive materials.

The task is to convince the identified funding source(s) to contribute to a "good cause". All contacts must reflect a personable, competent and enthusiastic professional.

Team efforts are an important ingredient in securing funding. It is important for letters of support/need accompany the funding request. This effort signifies the need of the individual based upon the assessments/recommendation from knowledgeable professionals who understand the needs of the individual requesting the funding assistance.

Such an effort also provides information to the funding source about the extent of the need and a justification for why financial assistance is sought and needed.

[Return to top of page](#)

Addressing District Assistive Technology

Needs

An Administrator's Assistive Technology Action Plan

In addressing the needs of administrators, the following assistive technology action plan is suggested.

(1) Develop a District AT Inventory

Survey your special education and related services providers about all assistive technology devices and services currently used within your district and all student assistive technology needs within the district. This can be done by surveying special education teachers and related services providers for known student needs. This will help in creating an inventory listing of items on-hand as well as those which may be needed.

(2) Conduct Staff Technical Assistance/Training Needs Assessment

Conduct a needs assessment to identify potential training needs and local resource individuals among the staff. (Also see the Professional Development section)

Provide staff with information on the variety of assistive technology devices/services that can be used to implement objectives and how to make informed requests/recommendation regarding device selection. (Also see Professional Development Section)

(3) Develop a Community Inventory

Identify assistive technology resources available within the district and community. Identify staff, agencies, and vendors in the district and community who have expertise to share.

(4) Include Assistive Technology IEP Procedures in Local District Policies and Procedures

Describe how the district wants to document that assistive technology was considered and determined to be necessary or not necessary within the evaluation and IEP process. Inform all personnel of the correct procedures. (See Steps for Determining AT Needs in the IEP Process Section)

During the development of the IEP, consider the need for assistive technology for instructional purposes. Make sure identified assistive technology provided to implement the IEP goals and objectives and for the student to benefit is provided. Assist each ARC in becoming knowledgeable of available assistive technology and in their ability to determine the need for assistive technology to implement IEP objectives.

(5) Identify Local/Regional AT Evaluation Sources

Develop strategies to identify when and how to include assistive technology during the evaluation process, especially in the areas of vision, hearing, health/motor, and communication. Identify assessment personnel and the areas of assistive technology in which they are knowledgeable. Identify resources in those areas where district personnel do not have assessment expertise. This may lead to purchasing an evaluation from outside the district and/or to training district staff in assessment issues. If using outside evaluation sources, make sure the evaluators are qualified in the AT areas of concern.

(6) Develop a Listing of School/Non-school AT Funding

Become familiar with alternative funding sources for assistive technology devices and services. (See Funding Section.)

(7) Develop AT Maintenance Procedures

Develop a plan and budget for addressing AT maintenance and the provision of loaner units for assistive technology provided as part of the evaluation or IEP process. (Morris, RESNA, 1991).

(8) Additional Considerations

Additionally, the following considerations need to be incorporated in district procedures:

a) Who is responsible for the purchase of AT?

- b) How will training for the use of devices be determined to ensure proper use of devices purchased?
- c) How will training needs on AT be determined?
- d) Who is responsible for the maintenance of the AT?
- e) How will transitioning equipment used by a student within or across the district be handled?
- f) How will transition equipment used by a student from an educational setting to post secondary settings be handled?
- g) What are the liability and insurance coverage limits for the school district regarding assistive technology?
- h) What procedures have been developed determining when it is appropriate for school related AT to also be used at home?

[Return to top of page](#)

Administrative Concerns

This section addresses administrative concerns through a question and answer format and suggested Administrative Assistive Technology Action Plans.

Question: What is the difference between an assistive technology device and an assistive technology service?

Answer: An assistive technology device can be simple or complex. Assistive technology devices include velcro, adaptive clothing, seating systems, powered mobility systems, augmentative communication devices, switches. Common examples of assistive technology devices used in the classroom include: computer hardware, software, augmentative and alternative communication systems, assistive listening devices and classroom modifications such as environmental controls.

Assistive technology services are those that ensure appropriate selection, maintenance, customization and repair of equipment; those that provide technical assistance, consumer or caregiver training, peer counseling; and those that help fund equipment through loan, rental, lease, or purchase.

Question: What is the responsibility of the local school district to ensure the delivery of the assistive technology listed on the student's IEP?

Answer: According the Individuals with Disabilities Education Act (IDEA) and policy directives from the United States Department of Education and Kentucky Administrative Regulations, it is the responsibility of the local school district to provide all assistive technology (devices & services) written into the IEP.

Question: Is a school district obligated to allow a student to bring an assistive technology device home?

Answer: An assistive technology device may be taken home at night, or weekends, or over the summer if the use in other settings is included in the IEP and it is determined that the use of the device at home is needed in order to assist the child in meeting her/his IEP goals. Furthermore, a school district may need to provide a second device for use at home if transporting the device is impractical.

Question: Who should evaluate a student for an assistive technology device(s) or service(s)?

Answer: A student must be evaluated by a qualified professional who is knowledgeable in assistive technology. For example, if the student's speech and hearing are being evaluated, a speech/language pathologist and pediatric audiologist are considered qualified professionals. See Appendix A for a listing of Kentucky regional assistive technology resource centers.

Question: Must the school district assume financial responsibility for the purchase of assistive technology devices and services as listed in the IEP?

Answer: YES. The school district must assume financial responsibility for purchase of assistive technology devices and services unless the cost is covered by third party benefits or insurances coverage and the parents **agree** to use such coverage to pay the cost. A student's parents **can not** be required to assume the cost, nor can AT in the IEP be denied on the basis of cost.

Question: Under Section 504 of the federal Rehabilitation Act of 1973, is a school district required to provide assistive technology devices?

Answer: Section 504 covers a broader range of disabilities than the special education law, requires public schools to provide students with disabilities within the district a free appropriate public education and, in addition, ensures that students with disabilities are afforded an equal opportunity to participate in school programs. For students with disabilities, this means that schools may need to make special arrangements so that these students have access to the full range of programs and activities offered. For example, a student who needs a wheelchair lift on a school bus to get to school must be provided with this technology. Other modifications which might be required under Section 504 include installing ramps onto a building and modifying bathrooms to provide access for individuals with physical disabilities. (From RESNA (1992). Assistive Technology and the Individualized Education Program. Washington, D.C.: RESNA Technical Assistance Project.)

[Return to top of page](#)

Glossary

Admissions and Release Committee (ARC) - The committee responsible for making IEP decisions about the identification, evaluation, placement, and provision of a free appropriate public education for a child or youth with disabilities.

Annual Review -A meeting of the ARC that takes place within one (1) calendar year of the date of the ARC completed the current Individual Education Program. At this meeting, the ARC will review and revise the IEP as needed.

Augmentative Communication (AAC)- A set of approaches, strategies, and methods used to enhance the communication skills of persons who do not speak or whose speech is not intelligible.

Individual Education Program (IEP)- A written plan of action developed by the ARC to meet the specially designed instruction and related service needs of a children with a disability.

Individual Family Service Plan (IFSP) -A written plan of action developed for children ages 0-3 that addresses child needs and the family resources, priorities and concerns related to the identified developmental needs of the child.

Individuals with Disabilities Education Act -The federal law that makes sure all children and youth with (IDEA) educational disabilities, who are between the ages of 3 and 21, have available to them a free appropriate public education. IDEA includes special education (specially designed instruction and related services) designed to meet the unique needs of a child or youth with disabilities.

Individual Work Rehabilitation Plan (IWRP)- A written plan of action developed for adults that address the vocational and rehabilitation needs of the individual.

Input device- A device used to communicate information to the computer, such as a keyboard.

Kentucky Administrative Regulations -These regulations establish requirements necessary to assure to Related Exceptional Children (KAR) uniformity in providing specially designed instruction and related services to children and youth with disabilities and to conform with IDEA.

Switch - An input device used to control assistive devices and computers. There are a variety of types of switches including pressure switches, pneumatic switches, and voice activated switches. These switches can control adapted toys, environmental control devices, communication devices, and a wide range of computers.

Telecommunication Device for the Deaf -A Telecommunication Device for the Deaf (TDD) allows a person to (TDD) transmit typed messages over the phone lines to another person with a TDD. Most TDD include a keyboard for typing messages to send and a display and/or printer to receive messages.

Touch screen- An input device which allows access to a computer by directly touching the screen.

Trackball -An input device which contains a visible sphere mounted in a stationary container. It functions similarly to a mouse, however, the sphere is rotated with the fingers to move the cursor to any position on the screen.

[Return to top of page](#)

References

ASHA, (1996). *Technology in the classroom: Education module*. Rockville, MD: Author.

Bowser, G. & Reed, P. (1995). Educational TECH points for assistive technology planning. *Journal of Special Education Technology*, 7, 4, 325-338.

Chambers, A. C. (1997). *Has technology been considered? A guide for IEP teams*. Albuquerque, NM: Council of Administrators in Special Education.

Garmston, R., & Wellman, B (1995). Adaptive schools in a quantum universe. *Educational Leadership*, 52, 7, 6-12.

Kentucky Assistive Technology Service Network (1995). *The buck starts here: A guide to funding*. Frankfort, KY: Author.

Kentucky Early Childhood Transition Project (1996). *A step by step family guide for transition into preschool*. Frankfort, KY: Author.

Todis, B. & Walker, H (1993). User perspectives on assistive technology in educational setting. *Focus on Exceptional Children*, 26, 3.

[Return to top of page](#)

Source Documents

California Protection & Advocacy (1995). *Assessing assistive technology (First Edition)*. Sacramento CA: Author.

Case, E. & Minnick, K.F. (1991). *Assistive technology service delivery system for new mexicans with disabilities*. Final report. Albuquerque, NM: Minnick & Associates, Inc.

Craddock, J.A., McNeal, D., Somerville, N., & Wilson, D.J. (1995). *Tips on breaking the funding barrier... How to get assistive technology for your child*. Downey, CA: Rancho Rehabilitation Engineering Program.

Illinois Assistive Technology Project (1996). *Tech Notes*. Springfield, IL: Author.

Interagency Project for Assistive Technology (1995). *A survey of regional special education assistive technology practices in North Dakota*. Cavalier, ND: Author.

Jacome, F. C. (1996). *Dollars & common centers: A guide to funding sources for assistive technology in Arizona*. Tucson, AZ: Arizona Technology Access Program.

Judge, G. (1992). *Parent guidelines to assistive technology*. Augusta, ME: Maine Department of Education, Division of Special Education.

Maine Department of Education (1995). *Educators commonly asked questions about assistive technology devices and services*. Augusta, ME: Author.

Matthews, C. & Sibert, R. I., (1994). *Task force recommendations. Assistive technology education task force for Delaware children and youth with disabilities*. Dover, DE: Delaware Department of Public Instruction.

Missouri Department of Elementary and Secondary Education, Division of Special Education (1995). *Assistive technology*. Kansas City, MO: Author.

New York State Office of Advocate for Persons with Disabilities (1995). *Parents!* Albany, NY: Author.

Nevada State Rehabilitation Division (No date). *A guide to assistive technology equipment and device resources*. Reno, NV: Author.

North Carolina Assistive Technology Project (1996). *The journey to independence through assistive technology*. Greenville, NC: Author.

North Carolina State Board of Education (1995). *School technology users task force report*. Raleigh, NC: Author.

Pennsylvania Department of Education (1996). *Assistive Technology support in the written plan*. Harrisburg, PA: Author.

Pennsylvania Department of Education (1996). *A focus on accommodations for learning*. Harrisburg, PA: Author.

Zabala, J. (1994). The SETT Framework: *Critical questions to ask when making informed assistive technology decisions*. Paper presented at Closing the Gap Conference, Minneapolis, MN.

[Return to top of page](#)

Appendix

List of Appendices

Appendix A: Kentucky AT State and Regional Resources

Appendix B: KETS AT Correspondence and Funding Request Form

Appendix C: Assistive Technology Regional Teams

Appendix D: Assistive Technology Assessment Form

Appendix E: AT Matrix

Appendix A: Kentucky State and Regional Assistive Technology Resources

Regional Resources

Bluegrass Technology Center & Appalachia Assistive Technology Consortium

169 North Limestone

Lexington, KY 40507-1122

Phone: (606) 255-9951 V/TDD or 800-209-7767

Fax: (606) 255-0059

[email: bluegrass@uky.campus.mci.net](mailto:bluegrass@uky.campus.mci.net)

Enabling Technologies of Kentuckiana (enTECH)

LFPL, 301 York St.

Louisville, KY 40203

Phone: (502) 574-1637 V/TDD or 800-890-1840

Fax: (502) 582-2448

[email: entech@iglou.com](mailto:entech@iglou.com)

AbleTech

36 West Fifth St.

Covington, KY 41011-1402

Phone: (606) 491-8700 or 800-209-7112

Fax: (606) 491-5708

[email: sauermj@worldnet.att.net](mailto:sauermj@worldnet.att.net)

West Kentucky Assistive Technology Consortium (WKATC)

P.O. Box 266

Murray, KY 42071

Phone: (502) 759-4233 or 800-209-6202

Fax: (502) 759-4208

<file:///C:/My%20Documents/mailto:wkatc@mursuky.campus.mci.net>

[Return to top of page](#)

State Resource

Kentucky Assistive Technology Service (KATS) Network

Charles McDowell Rehab Center

8412 Westport Road

Louisville, KY 40242

Phone:(800) 327-5287

Fax: (502) 327-0022

email: katsnet@iglou.com

Web site:

<http://www.katsnet.org/>

[Return to top of page](#)

Appendix B: Kentucky Education Technology System Assistive Technology Correspondence and Funding Form

KETS ASSISTIVE TECHNOLOGY APPROVAL REQUEST FORM

Revised 2/12/96

School District Name:

Every student and every educator in Kentucky is entitled to access the statewide network, known as KETS. In the event a person has a disabling condition which prevents him/her from accessing the network, using KETS standard equipment, KETS trust fund dollars can be spent for the appropriate adaptive or assistive equipment which will provide equal access to the network for that individual. Approval for expenditure of KETS fund for assistive or adaptive equipment will be based upon the above statement. Items must provide access to the KETS network otherwise unavailable to the user in order to be considered for approval.

Does the item provide an identified individual with a disability access to the KETS network or enhancements to a KETS component on the network otherwise unavailable to the user? Yes: No:

if Yes, proceed with the form. If No, this item is not eligible for funding- with Education Technology Funds and there is no need to submit the form.

Name of item:

Cost of item: Quantity requested: Total cost:

is the requested item pre-approved on the KETS AT Matrix? Yes: No:

If "No", describe the item and its function. Describe the capability/access it will provide the user.

Special Education/504 Coordinator Signature Date

The cost for this item will be taken out of the District's Allotment for this line item. We verify this has not gone over our Master Plan budget for this line item (State Board Approved Master Plan of November, 1993). We verify the above will be purchased (not leased/bonded) and we have sufficient Education Technology Funds in our account to cover these expenditures.

Financial Officer Signature Date

District Technology Coordinator Signature Date

I verify the District has correctly filled out its request form and may proceed to purchase KETS technology.

KETS Coordinator Signature Date

Exceptional Child Consultant Signature Date

This request has been denied for the following reason:

[Return to top of page](#)

KENTUCKY DEPARTMENT OF EDUCATION

CAPITAL PLAZA TOWER 500 MERO STREET FRANKFORT, KENTUCKY 40601

Wilmer S. Cody, Commissioner

Memorandum

To: Special Education Coordinators

District Technology Coordinators

From: Don Coffman, Associate Commissioner for Education Technology Johnnie Grissom,
Associate Commissioner for Special Instructional Service

Date: April 10, 1996

Subj: Purchasing Assistive Technology with KETS funds

The Kentucky Education Technology System (KETS) and the Division of Exceptional Children Services is implementing a process to improve and clarify use of KETS funds to purchase assistive technology for students with disabilities. KETS funds may be used to purchase assistive technology when it allows students with disabilities to access the KETS network or enhances a students use of a KETS component (such as a work station).

When a district has a need to purchase assistive technology as stated above, an Assistive Approval Request Form is to be used. A copy is enclosed for your use. This form is to be *submitted* to your Regional KETS Coordinator. It is to be completed by the District Technology Coordinator and the local Special Education/Section 504 Coordinator.

One of the questions on the form asks if the item is pre-approved on the KETS Assistive Technology Matrix. In this mailing is a copy of the Assistive Technology Matrix-Abbreviated Version with an indication of those items which are pre-approved for which no justification is needed. In the case of pre-approved items, the request form still needs to be submitted but the *review* will only be for fiscal tracking. A full copy of the Assistive Technology Matrix may be obtained by contacting Preston Lewis at 502 564-4970 or visiting the KDE Homepage section For Teachers or the KETS menu, choosing the Technology section, and clicking on Assistive Technology Resources (URL address: "http://www.kde.state.ky.us/bmss/oet/dcsc/AT/**Assistive_Technology.html** (note change in URL))

It is not necessary to have funds budgeted in the KETS District Technology Plan for assistive technology before submitting a request. Local districts should consider any unmet needs for special needs students when completing their Technology Plans and budget. This does not prevent later access to local KETS trust fund dollars to support an individual need. Each district must comply with its signed assurance in its Technology Plan so as not to discriminate on the basis of disability (Section 504 of the Rehabilitation Act and the Americans with Disabilities Act).'

In the event a district feels its request has been wrongly denied, a waiver may be requested. Waivers are available for review of unique situations. Assistive and adaptive device needs by students that are not related to access to KETS may be funded by other sources *such* as Part B under IDEA or SEEK funds. If you need further clarification on these issues, please contact Johnnie Grissom at (502) 564-4970 or Don Coffman at (502) 564-6900.

Enclosures

cc: Superintendents

Equal opportunity Employer

[Return to top of page](#)

Appendix C: Assistive Technology Regional Teams

Assistive Technology Regional Teams

The Division of Exceptional Children in collaboration with enTECH, Bluegrass Technology Center and the West Kentucky Assistive Technology Consortium has been involved in developing local and regional capacity of school personnel in the identification, assessment and implementation of assistive technology. The goals of the AT Regional Teams are:

To build local capacity of school personnel in the appropriate identification and implementation of assistive technology for individuals with disabilities.

To provide on-going technical assistance support for the appropriate identification and implementation of assistive technology throughout the Commonwealth.

Through the acquisition and implementation of assistive technology, to assure that a greater number of individuals will be able to access networks, participate in more inclusive settings, and access knowledge to enable them to be a more productive citizen.

To develop self-sufficiency in the delivery of assistive technology services for teachers and other professionals in the schools by enhancement and expansion of expertise.

To find out about the regional team in your area, contact the Division of Exceptional Children Services (502 564-4970) or enTECH (800-890-1840).

[Return to top of page](#)

Appendix D: Example Assistive Technology Screening Document

AT Trigger - Assistive Technology Screening Document

Name: Date of Birth: Person Completing Form:

Directions: Check the areas which are of concern for the student when compared to same age peers.

Physical Functioning/Motor Abilities	Yes	No	N/A
1. Can the student sit upright while completing tasks at his desk (i.e., not slouched, resting head on desk or hand, etc.)?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
2. Can the student maintain an appropriate posture while seated and actively engaged in a motor task (i.e., keyboarding, cutting)?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
3. Can the student participate in playing and running activities without a typical body postures?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
4. Can the student sit on floor without assuming asymmetrical postures?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
5. Does the student have the motor skills necessary to get to/from school and/or get around within the school?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
6. Can the student participate in physical activities (structured independent) and navigate within the classroom without tripping or stumbling?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
7. Does the student climb and descend stairs independently?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
8. Is the student able to open heavy doors independently?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
9. Is the student able to maintain balance while performing an activity (i.e. putting on boots, getting up from floor)?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
10. Can the student carry objects while walking independently?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Comments:	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Fine Motor Skills	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
1. Can the student cut and/or handle scissors independently?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
2. Can the student use writing utensils (i.e., markers, paint brush, pencil, crayons) independently?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
3. Can the student copy materials from a book?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
4. Can the student copy materials from a board?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
5. Can the student tie shoes, button, snap, and/or use zippers independently?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
6. Can the student turn door knobs or handles, water faucets, pages in a book, and use manipulatives?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
7. Can the student keyboard?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
8. Can the student draw, form letters, stay on the line, and/or trace?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Comments:	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Communication Functioning

1. Does the student speak to communicate?
 2. Are others in the school environment able to understand the student's speech?
 3. Does the student respond appropriately to speech and noises in the environment?
- Comments:

<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Vision

1. Is the student able to see printed materials presented in the classroom?
2. Is the student able to see toys/objects in the classroom environment?
3. Is the student able to transfer information from a book, chart, and/or chalkboard to paper?

Academic Functioning

1. Does the student understand basic cause/effect?
2. Does the student exhibit choice making skills?
3. Does the student have the attention span needed to handle school/daily living tasks?
4. Does the student have the sequencing skills necessary to accomplish school/daily living tasks?
5. Does the student have the memory and problem solving necessary to accomplish school/daily living tasks?
6. Can the student visually track along a line of print?
7. Can the student read texts independently?
8. Can the student write legibly at a reasonable rate in a reasonable time?
9. Can the student write legibly?
10. Can the student accomplish written tasks?
11. Can the student spell enough of the words needed to communicate in written form?
12. Can the student perform math tasks needed for school or for daily living?
13. Can the student take notes at the level needed in school and/or in daily living?

Comments:

Recreation and Leisure

1. Is the student able to use the playground equipment independently?
2. Is the student able to participate in group recreational activities, such as sports and group games?
3. Is the student able to take part in activities requiring fine motor skills, such as board games, art, etc.?
4. Is the student able to participate in extra-curricular activities, such as clubs?

Comments:

Vocational Functioning

1. Can the student access/participate in vocational or job activities?
2. Is the student able to maintain a position for extended periods of time?
3. Can the student use a computer without modifications?
4. Can the student hold the phone and dial independently?
5. Is the student able to access everything at a job site (i.e., desk, bathroom, etc.)?

Comments:

General Health

1. Does the student breathe without difficulty?
2. Does the student demonstrate sufficient stamina to maintain academic involvement throughout the school day?
3. Is the student able to utilize doors, stairs, lockers, etc. within the school environment independently?
4. Is the student able to maintain focus and engagement with the academic material presented?
5. Does the student demonstrate physical strength needed to participate in school activities?
6. Is the student's health condition adequate for satisfactory school performance?

Comments:

Social Competence

1. Can the student independently use various clothing fasteners?
2. Can the student organize and maintain his/her school supplies and materials?
3. Is the student able to participate in school lunch independently?
4. Can the student maintain personal hygiene necessary for social acceptance?
5. Is the student able to use restrooms independently?

Comments: