

Schools for All Children

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LOS ANGELES UNIFIED SCHOOL DISTRICT

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Los Angeles Unified School District *Assistive Technology Program* Position Paper

BACKGROUND

The Individuals with Disabilities Education Act (IDEA) and California special education law require that students with disabilities participate in general education curriculum, assessment, and accountability measures. The IDEA and California law also require that Individualized Education Program (IEP) teams consider whether students need assistive technology services and devices when developing IEPs. 20 U.S.C. § 1414 (d)(3)(B)(v); Cal. Educ. Code § 56341.1(b)(5).

Assistive Technology devices and services are defined in the IDEA, at 20 U.S.C. § 1401 (1) & (2), as:

- (1) The term “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 a child with a disability.
- (2) The term “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. This includes: evaluation; providing for the acquisition of AT equipment; selecting, designing, maintaining, repairing, or replacing the equipment; coordinating and using other therapies, interventions or services with assistive technology devices; and training or technical assistance for the child, family and other professionals who work with the child.

Although “consideration” of assistive technology does not mandate assessment, assistive technology devices and services are most often deemed necessary and provided in LAUSD after an assessment has been conducted by the staff at the student’s local school site, staff from the District’s Assistive Technology Program, or both groups in collaboration. When equipment is recommended, the local school site has primary responsibility to provide such equipment, with assistance from the Assistive Technology Program when necessary.

The LAUSD Special Education Policies and Procedures Manual, published in July of 2005, recommends that each school build a loan library of assistive technology tools with an inventory of existing equipment options. This inventory may be used for active intervention efforts conducted by school site personnel when any student at the school is experiencing difficulties with the curriculum. Whenever possible, IEP teams and Student Success Teams (SSTs) should utilize equipment from the school inventory as part of the intervention process for students.

The Special Education Policies and Procedures Manual also recommends that schools consider the needs of special education students when writing school site technology plans. Schools are to ensure that students with disabilities have access to the technology at schools that are available to non-disabled students. For example, technology plans should provide for the purchase of computers that allow for adaptations such as special keyboards and switches. If the school has a computer lab, the school should be able to adapt the lab to accommodate students with disabilities. In developing technology plans, and accommodating students with disabilities, school administrators may obtain information and assistance from the Assistive Technology Program and the Low Incidence Program.

PURPOSE

The purpose of this paper is to describe an approach to teaching and learning that will allow all students the opportunity to interact with curriculum in ways that are most meaningful and effective, whether they are identified as having a disability or not. Universal design for learning encompasses many of the features of what is currently referred to, and recommended as, assistive technology within the District, and makes those features available to all learners.

ELEMENTS

Universal Design for Learning

Universal Design for Learning (UDL) draws upon and extends principles of universal design as used in architecture and product design to the field of education. The essential features of universal design for learning have been formulated by the Center for Applied Special Technology (CAST) into three principles:

1. The curriculum provides multiple means of representation. Subject matter can be presented in alternate modes for students who learn best from visual or auditory information, or for those who need differing levels of complexity
2. The curriculum provides multiple means of expression to allow students to respond with their preferred means of control. This accommodates the differing cognitive strategies and motor-system controls of students.
3. The curriculum provides multiple means of engagement. Students' interests in learning are matched with the mode of presentation and their preferred means of expression. Students are more motivated when they are engaged. (Rose and Meyer, 2002)

Assistive Technology Program

Since its inception as the Assistive Technology and Augmentative and Alternative Communications Program in 1998, Assessors for the District's Assistive Technology Program have put in place various assistive technology devices and strategies to provide access to curriculum for those students referred to the program. Examples of recommendations for each curriculum area are listed below.

Reading:

- Sentence isolators
- Books on tape
- Screen reading software that allows printed material to be scanned into a computer and read aloud to the user.
- Text-to-speech software that allows users to change the appearance of the text by manipulating font color, size, spacing, etc.

Math:

- Calculators
- Software that provides symbols and/or math formatting support
- Software with on-screen manipulatives

Writing:

- Pencil grips
- Wide-lined paper
- Text-to-speech word processors with or without built-in phonetic dictionaries and spellcheckers
- Use of dictation, either to a peer or into a tape recorder
- Software that combines pictures with words for those students with limited spelling abilities
- Portable electronic word processors
- Voice output portable electronic dictionaries
- Word prediction software
- On-screen keyboards for students who cannot access traditional keyboards

Communication:

- Picture communication books or boards
- Specialized keyboards for computer access
- Speech generating communication aids

As students who had been assessed for assistive technology at local school sites began receiving this technology and AT program staff trained teachers in its use, general education teachers began to ask how they could obtain the same equipment for use with their general education students. They readily saw how the same features that provided needed functional access to the general education curriculum for students with disabilities could benefit their English language learners and other struggling students.

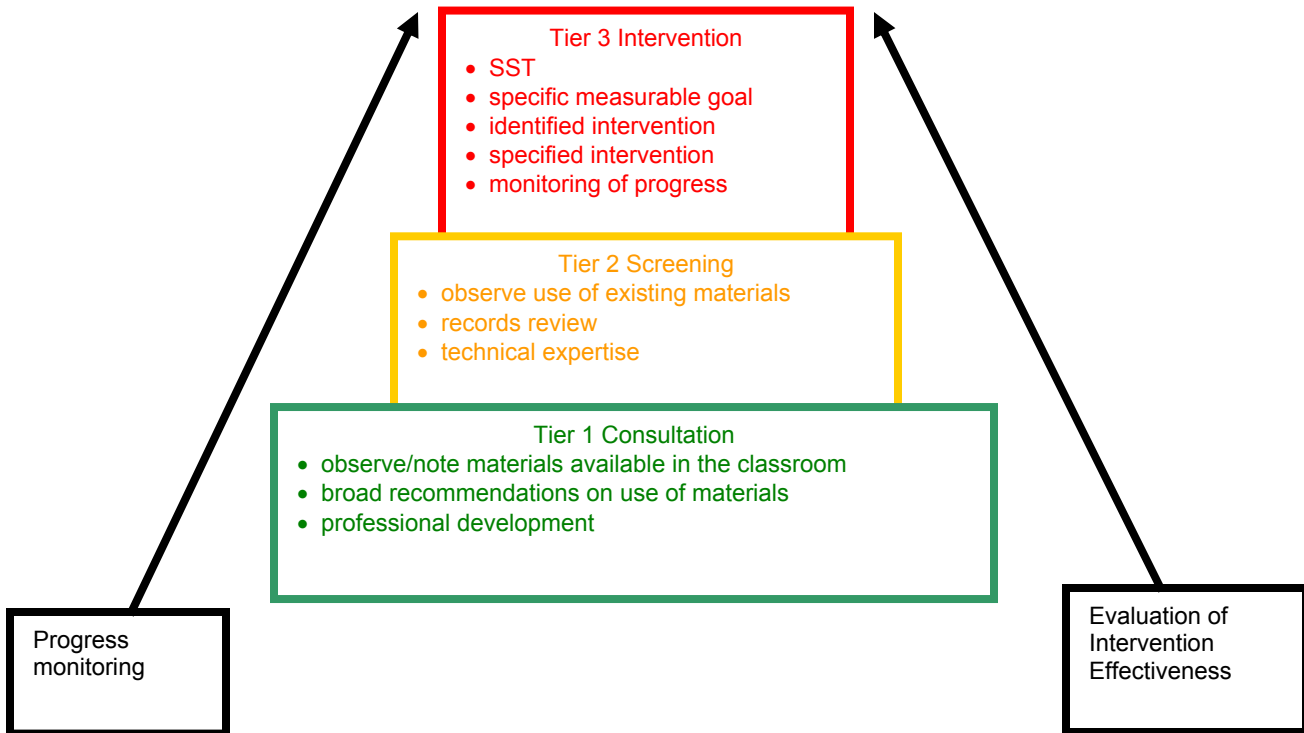
The AT program responded by creating and presenting professional developments to school sites about assistive technology devices and services in general, and about devices and strategies for the specific curriculum areas of reading, writing, math and communication. The AT program also compiled and distributed a suggested list of assistive technology and augmentative and alternative communication equipment for schools to consider purchasing in order to address the needs of their students, whether or not they were identified as having special needs. A copy of this list is included in the appendix.

POSITION

The Assistive Technology Program advocates a three-tiered approach to provide meaningful access to rigorous curriculum for all students and proposes that:

1. Classroom teachers already have access to a variety of strategies and materials, including universal design features built into current classroom computers that can be used to address different learning styles within the classroom setting.
2. Professional development activities at local school sites should be designed to assist classroom teachers in identifying resources already within the classroom to help meet the needs of diverse learners.
3. Utilizing universal design principles in classrooms throughout the District will allow most students to access curriculum without the need for “special” accommodations or referral for special education assessment.

A Three-Tiered Model of Prevention and Pre-Referral (Early Intervening) (Early Intervening) Practices within General Education



SECTION I: PREVENTION AND PRE-REFERRAL (EARLY INTERVENING) PRACTICES IN GENERAL EDUCATION

Prevention Tier 1: Consultation Regarding Universal Access

In tier 1, resources at the local school site are identified. Most classrooms in LAUSD already have computers and standard word processing programs in place, as well as a variety of pencils and paper, calculators, rulers, tape recorders and other devices, which can be used to augment instruction and provide options for students to use to access curriculum. All classrooms within LAUSD should have these basic materials, plus sentence isolators, pencil grips, math manipulatives, portable word processors, talking electronic dictionaries, text-to-speech word processing and math formatting software, and software that allows pictures to be combined with words to facilitate writing and understanding for those students with limited English vocabulary. In addition, secondary schools should have an optical character recognition software program in their learning center that would allow print materials to be scanned into the computer and read aloud to students. Utilizing these materials allows for multiple representations of content, multiple options for expression and/or multiple means of engagement to make curriculum accessible to all students.

School-site AT teams should identify materials already on site and become familiar with their use. In addition, Assistive Technology Program staff is available to assist in this process and provide information on how and where to acquire additional strategies and/or materials to make curriculum accessible. They also can provide professional development in the area of assistive technology for specific curriculum areas.

Prevention Tier 2: Screening

In tier 2, AT program staff will assist school-site AT teams in matching appropriate strategies and/or assistive technology devices within the school environment to address the specific needs/learning modes of all students, based upon a review of records and interviews with the classroom teacher and appropriate school-site related services personnel.

Prevention Tier 3: Intervention

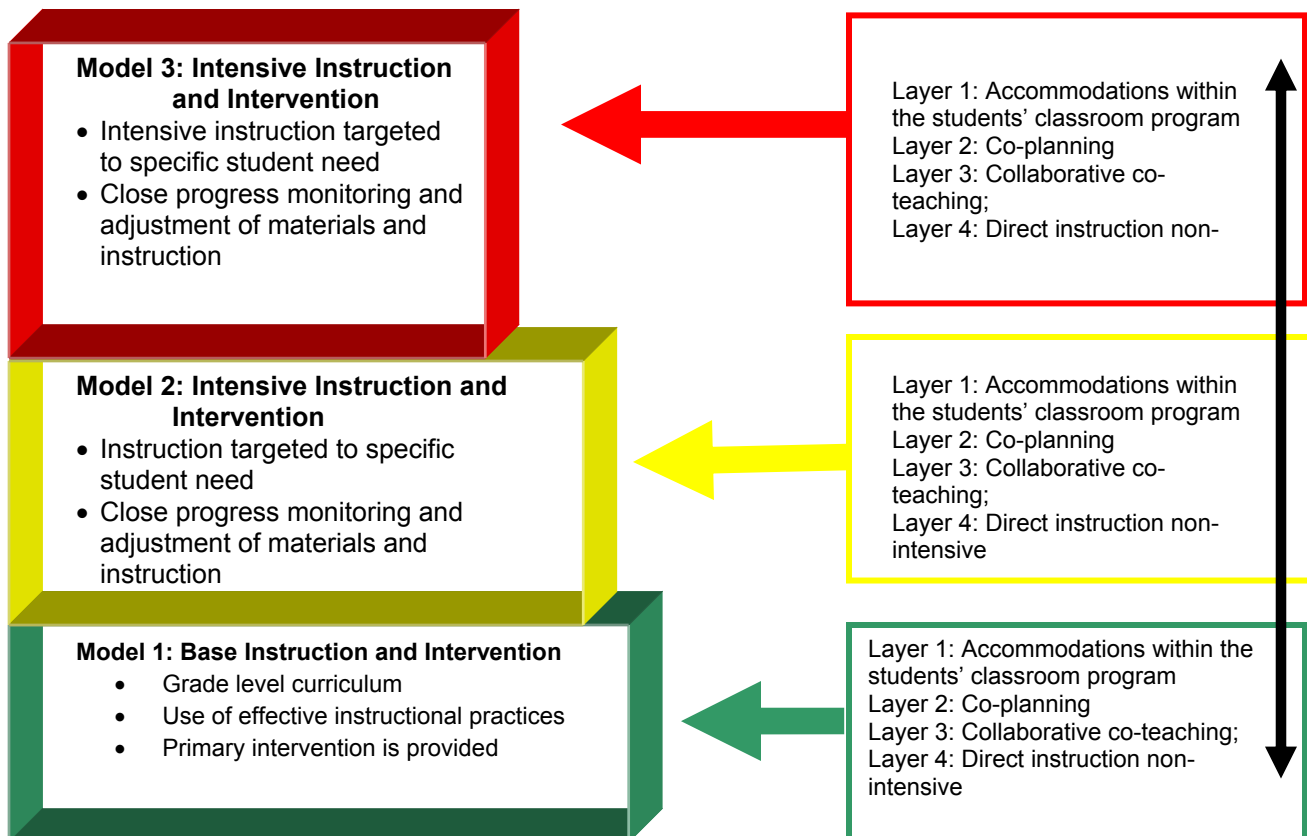
In tier 3, AT program staff (teacher assessors, augmentative and alternative communication-trained speech and language assessors, physical and occupational therapists) will provide professional development activities to enable school-site AT teams to select appropriate assistive technology devices and customize their features to assist students in accessing the curriculum. Strategies and/or equipment will be put in place for a trial period and linked to a specific curriculum goal i.e. Student will use text-to-speech word processing to produce a 3-5 paragraph essay with correct spelling, grammar and punctuation, 4 out of 5 trials.

If the trial with available strategies and/or equipment is successful, student should continue to utilize them for as long as necessary to accomplish curriculum goals.

When the use of this technology is not successful, school sites should consider referring the student for special education assessment.

SECTION II: ASSISTIVE TECHNOLOGY INTERVENTION MODES WITHIN SPECIAL EDUCATION - A DYNAMIC CONTINUUM OF INSTRUCTIONAL DELIVERY MODELS

Special Education services are gradually layered on as student need intensifies.



Model 1: Base Instruction

Model 1 consists of the use of AT interventions provided within the general education classroom. Base assistive technology devices for schools might include:

- Pencil grips
- Wide-lined paper
- Tape recorders for dictation
- Sentence/word isolators
- Portable electronic keyboards (i.e. AlphaSmart)
- Access to standard word processing on a computer

Schools should explore systems for inventory tracking of devices currently available on site and make determinations about what additional items might need to be purchased to support students.

The role of AT personnel in this model:

Assist local school sites in selecting and customizing appropriate assistive technology devices and strategies within the classroom. This may include utilizing software or other devices to present/adapt lessons for specific students. AT staff may also provide demonstration lessons using specific assistive technology and periodically monitor equipment to assure it is in working order and continues to meet student needs.

For students receiving instruction in the alternate curriculum, this model may include a trans-disciplinary services team approach to classroom-based services that support the functional areas of: communication, self-care/independent living, motor skills/mobility, functional academics, vocational, social/emotional and recreation and leisure.

School-wide professional development support inclusive of parents, teachers, paraprofessionals, and administrators is part of this service delivery model.

Model 2: Extended Instruction and Intervention

Model 2 consists of the use of low tech AT devices targeted to specific student need. These devices are determined through an assessment conducted by school personnel. They might include:

- Slant boards
- Sit and move cushions
- Book stands
- Text-to-speech word processing
- Word prediction software
- Voice-output portable electronic spell-checkers
- Word processing software that combines pictures with words

The role of AT personnel in this model:

As student abilities and school demands change, students and the school-site staff who work with them may require extended intervention in the form of occasional one-on-one instruction and support. Students who have been assigned their own devices, either by the Assistive Technology Program or through the local school site especially require monitoring to make sure their equipment continues to meet their needs throughout their school career. Each school has been assigned an AT assessor by the Assistive Technology Program who is available on an as-needed basis to provide training, consultation and support to the students and staff at each site. In addition, support is available in the learning centers on secondary campuses.

Model 3: Intensive Instruction and Intervention

Model 3 consists of the use of high tech AT devices targeted for use by individual students. These devices are determined based on assessment completed by AT program staff. They might include:

Desktop or laptop computer with specialized software
Alternative or on-screen keyboards
Alternative computer access such as: trackballs, head mice, switches, etc.
Speech generating devices (also known as voice-output communication aids or VOCA's)

The role of AT personnel:

Assistive Technology Program staff will conduct a multi-disciplinary assessment of the student's needs and provide training and support to the student and staff at the local school site on an on-going basis. Most often, only those students with low incidence disabilities and highly specialized equipment require this level of instruction.

SECTION III: ASSISTIVE TECHNOLOGY SERVICE COMPLETION GUIDELINES

IDEA requires that assistive technology needs be considered at every child's IEP. Assistive technology needs can vary, based on changes in student abilities and/or academic demands throughout their school career. Good practice and IDEA require that the IEP team meet when any change in service is initiated to document the need for such change. There are several factors the IEP team should consider when making decisions regarding service completion:

1. The student's disability no longer negatively affects his or her educational performance in the special education or general education program.
2. The student is able to access the curriculum successfully without the use of assistive technology.
3. The student consistently demonstrates behaviors that are not conducive to service provision, such as a lack of cooperation, motivation, or chronic absenteeism. In these circumstances the IEP team should consider alternate services or strategies to remedy interfering behavior or conditions.
4. The student's needs will be better served by an alternative program and/or service, as determined by the IEP team.
5. The student graduates from high school.
6. The student reaches the age of 22 years.

Reference

Rose, David H. and Meyer, Ann; (2002), Teaching Every Student in the Digital Age. Association for Supervision and Curriculu