



# Overview

## **Education Tech Points for Assistive Technology Planning**

Education Tech Points were designed to offer a way to integrate assistive technology into the thinking of the IEP/IFSP team and the management system that each school district uses to ensure provision of a Free and Appropriate Public Educational (FAPE) to children with disabilities. Each Education Tech Point identifies specific times within the planning for and provision of special education services that a student's need for assistive technology devices and services should be addressed. Key points to assist in making decisions regarding utilization of assistive technology services and resources are identified and incorporated into the educational planning system. At each Education Tech Point, actions for student centered teams and implications for districts are described.

### **STUDENT CENTERED PLANNING**

- Key points for decisions regarding assistive technology devices and services are identified and incorporated into the special education service delivery process.
- Each Education Tech Point represents a place in the process where the team should thoughtfully address assistive technology.
- At each Education Tech Point, specific questions have been identified to assist teams as they strive to provide appropriate assistive technology devices and services for a specific child.

### **IMPLICATIONS FOR DISTRICTS**

- Efficient, effective assistive technology services require clearly defined policies, professional development for staff, family participation in planning, access to technology and specialized technology expertise when needed.
- Implications for school districts are highlighted to assist school district personnel as they enhance their assistive technology services throughout the district.

## **EDUCATION TECH POINTS: AN OVERVIEW**

The reauthorization of IDEA in 2004 discusses the fact that almost 30 years of research and experience has demonstrated that the education of children with disabilities can be made more effective by supporting the development and use of technology, including assistive technology devices and assistive technology services, to maximize accessibility for children with disabilities (IDEA, 2004 [C.F.R § 601.(5)(H)34]).

Education Tech Points were developed to help IEP/IFSP teams address assistive technology devices and services in a systematic way that is integrated into their existing special education processes. Education Tech Points parallel the action steps that IEP/IFSP teams take as individualized educational programs (IEPs) or individualized family service plans (IFSPs) are developed for students with disabilities. Each Education Tech Point can be used for both individual student centered planning and as a guidepost for developing or improving district processes and procedures.

Throughout this manual, specific questions have been developed for each Education Tech Point to assist teams as they strive to provide appropriate assistive technology devices and services for a specific child. Figure 1 shows these student centered questions. At the same time administrators and district level planning committees can use the Education Tech Points to help them decide how to best provide services that comply with federal and state laws while efficiently and effectively meeting the assistive technology needs of their students with disabilities.

Work with the Education Tech Points framework in local school districts has helped to identify many trends and effective approaches to district level support for assistive technology services. Each Education Tech Point, its application and implications for school districts is discussed in a chapter. For example, at Education Tech Points #1-Referral-when planning for an individual student, IEP/IFSP team members must be aware of the laws related to the provision of assistive technology and act accordingly. The implication for school districts is that professional development about AT law must be provided. Sample guidelines, forms and manuals are included on the *Education Tech Point Tools CD* for school districts wishing to use the Education Tech Points in developing such policies and procedures.

Each chapter also includes examples of how the Education Tech Point framework was used to plan and implement an assistive technology program for three students. Beginning in this Overview chapter and continuing throughout the manual you will meet Terry, Shar and Steve. The stories of these three students are included to illustrate the child-centered team's use of Education Tech Points.








## **Quality Indicators for Assistive Technology**

Another concept that you will see throughout the manual is Quality Indicators for Assistive Technology services (QIAT). These quality indicators have been researched and found to be valid descriptors of high quality, effective AT services regardless of size, location, or demographic of a district (Zabala, 2004). They are included in each chapter to help illustrate and operationalize the development of effective AT services. The eight categories of quality indicators are:

- Consideration
- Evaluation
- Inclusion in the IEP
- Implementation
- Periodic Review
- Transition
- Professional Development
- Administrative Support

Additional information about the quality indicators is available on the QIAT website: [www.qiat.org](http://www.qiat.org). The website also includes many useful related documents that have been developed by the Quality Indicators Leadership Team and hundreds of AT practitioners from across the country.

**FIGURE 1: EDUCATION TECH POINTS STUDENT CENTERED QUESTIONS**

	<p><b>Consideration and Referral</b></p> <ul style="list-style-type: none"> <li>• What areas of student performance are of concern?</li> <li>• Does the student’s disability present barriers to performance that restrict the ability to acquire or demonstrate knowledge and make progress in the general education curriculum?</li> <li>• Does the student need accommodations or assistive technology in order to have access to the general education program?</li> </ul>
	<p><b>Evaluation</b></p> <ul style="list-style-type: none"> <li>• What is the task that the student is unable to do or is not able to do at an acceptable level?</li> <li>• What types of AT tools might enhance the student's educational performance?</li> <li>• Are the services of a specialist needed?</li> <li>• Is a trial period with AT needed?</li> </ul>
	<p><b>Trial Period</b></p> <ul style="list-style-type: none"> <li>• For what specific task(s) will this student use AT in daily routines and activities?</li> <li>• How long do we think the trial(s) need to be to give us an accurate picture of how the technology will work for the student?</li> <li>• What aspects of the student’s performance will change as a result of AT use?</li> <li>• What type of data will show the changes we hope to see?</li> <li>• How will we collect data about the effects of the student’s AT use?</li> <li>• What are the criteria for discontinuing a trial before the planned end-date?</li> </ul>
	<p><b>Plan Development</b></p> <ul style="list-style-type: none"> <li>• What tasks in the individualized plan are difficult or impossible for the child to do because of the disability?</li> <li>• What characteristics of an AT device would be needed to help the child complete difficult tasks?</li> <li>• Should a specific AT device be identified in the plan or are the features of a device sufficient?</li> <li>• Are assistive technology services needed to support the child’s use of the AT device(s)? If so, what are they?</li> <li>• What are the criteria for successful AT use by the student?</li> </ul>
	<p><b>Implementation</b></p> <ul style="list-style-type: none"> <li>• What does the student need to learn in order to use the AT for real tasks in everyday environments?</li> <li>• What actions need to be taken to ensure that the AT the child needs is used effectively?</li> <li>• Who is responsible for implementation of each aspect of the assistive technology plan?</li> <li>• When and where will the use of AT start?</li> </ul>
	<p><b>Periodic Review</b></p> <ul style="list-style-type: none"> <li>• Are the AT devices that were provided being used as described in the IEP?</li> <li>• Are the AT services that were described in the IEP being provided?</li> <li>• Are the AT devices and/or services functioning as expected?</li> <li>• What change in the student’s performance has occurred as a result of using AT?</li> <li>• Are changes in the student’s program of AT use needed?</li> </ul>
	<p><b>Transition</b></p> <ul style="list-style-type: none"> <li>• Does the student need to use assistive technology in the new setting?</li> <li>• Have plans for the student's assistive technology use in the new setting been made?</li> <li>• How independently is the student able to use AT?</li> <li>• Is the student able to describe needed AT supports and services and advocate for them? If not, who will advocate for the student’s AT needs?</li> <li>• Will new devices and/or services be needed in order to facilitate AT use in the new setting?</li> </ul>

**Why Education Tech Points?**

As K-12 school districts, early childhood special education programs and early intervention programs develop their system for addressing the delivery of assistive technology services, two options are available. One option is to develop a separate and parallel track of assessment and planning for assistive technology. This involves the development of a specialized referral and assessment process and the establishment of a specialized team to address all AT needs. While there are many advantages to such a system for individuals with complicated technology needs, it is rarely an efficient way to address the needs of students with mild disabilities, nor does such a system adequately take into account the child’s functional use of the AT in customary environments as required in IDEA.

An alternative to a separate, isolated assessment and prescription system is the development of general program processes and procedures that identify the times when assistive technology questions should be raised. Including assistive technology in already established ways of operating provides support to existing educational teams to select assistive technology devices and implement assistive technology services. Such a system has the advantage of including everyone on the IEP/IFSP team in a familiar process and assures that assistive technology will be considered in all the aspects of the child's educational program. We call such a system Education Tech Points.

Education Tech Points offer a way to integrate assistive technology into the thinking of the IEP/IFSP team and the management system that each school district uses to ensure provision of appropriate services to children with disabilities. Each Education Tech Point represents a point in the process of referral, evaluation plan development and implementation where teams will discuss the use of assistive technology. This structure provides a way to organize and monitor assistive technology services while enabling programs to tailor activities to match the needs of each student. Initial Education Tech Point questions at points 1, 2, 3, and 4 guide the IEP/IFSP team through the necessary steps to determine if a child may need an assistive technology device or service. Education Tech Point questions at points 5 and 6 can assist the education staff to monitor the student's use of AT in order to ensure that any needed changes are addressed in a timely and efficient manner. Education Tech Point 7's questions help when planning for transitions for students who use AT.



**TERRY**

*Terry is thirteen years old. She attends her neighborhood middle school and is repeating seventh grade. Terry has a dual diagnosis. She is gifted and has a learning disability. She can read and learns quickly and easily but she is unable to complete written work. Her handwriting is similar to that of a second grader and she makes many errors in spelling and punctuation. Because it takes Terry so long to write, she has trouble completing her assignments.*

*Terry is eligible for special education services as a student with a learning disability. She receives special education support services in her regular classrooms and goes to the resource room when she needs additional support. Terry's program includes support from an instructional assistant, and specially designed instruction in writing. Terry is expected to complete all classroom assignments but written assignments are typically shortened for her because it takes her so long to complete written work. Her IEP team is concerned that always shortening the assignment is not giving Terry sufficient opportunity to show what she has learned. Would assistive technology help Terry?*

**Laws that govern the provision of Assistive Technology**

The provision of assistive technology devices and services is specifically addressed in federal law by the Individuals with Disabilities Education Improvement Act (IDEA). The definitions of assistive technology devices and services are especially relevant to the focus of this manual and are included here for easy reference.

**34 C.F.R § 300.105 Assistive technology**

- (a) Each public agency must ensure that assistive technology devices or assistive technology services, or both, as those terms are defined in §§ 300.5 and 300.6,

respectively, are made available to a child with a disability if required as a part of the child's—

- (1) Special education under § 300.36;
  - (2) Related services under § 300.34; or
  - (3) Supplementary aids and services under §§ 300.38 and 300.114(a)(2)(ii).
- (b) On a case-by-case basis, the use of school-purchased assistive technology devices in a child's home or in other settings is required if the child's IEP Team determines that the child needs access to those devices in order to receive FAPE.

Assistive technology was first defined in law in the Technology Related Assistance for Individuals with Disabilities Act of 1988. The definition was incorporated into the Individuals with Disabilities Education Act (IDEA) in 1990. Since that time, the responsibility to provide assistive technology devices and services has been mandated in every IDEA revision, revisions of the Rehabilitation Act and in the Americans with Disabilities Act. In IDEA assistive technology is defined in the following way.

**34 C.F.R. § 300.5 Assistive technology device**

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 the functional capabilities of a child with a disability. The term does not include a medical device that is surgically implanted, or the replacement of that device. (Authority 20 U.S.C. 1401(1))

Another important component of IDEA is the definition of assistive technology services.

**34 C.F.R. § 300.6 Assistive technology service**

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 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 with a disability 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 that child.

(Authority: 20 U.S.C. 1401(2))

The list of assistive technology services alone clearly shows that the provision of appropriate assistive technology devices and services involves much more than purchasing equipment. However, there is little guidance in the law about how to make the necessary decisions to ensure that each

child who requires an assistive technology device or service will receive it. IDEA does not contain specific directions for assuring that a child with a disability receives assistive technology devices and/or services. The main source of guidance has been the policy letters from OSEP. The first of these (Shrag, 1990) stated:

*"...it is impermissible under EHA-B for public agencies (including school districts) 'to presumptively deny assistive technology' to a child with handicaps before a determination is made as to whether such technology is an element of a free appropriate public education (FAPE) for that child. Thus, consideration of a child's need for assistive technology must occur on a case-by-case basis in connection with the development of a child's Individualized Education Program (IEP) (p. 1)."*

IDEA includes requirements specific to assistive technology and the IEP team. Every IEP/IFSP team must consider the following special factors:

### **Development of the IEP**

(B) Consideration of special factors.—The IEP Team shall—

- (i) in case of a child whose behavior impedes learning...appropriate strategies, interventions, and supports;
- (ii) in the case of a child with limited English proficiency, language needs....;
- (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.....that instruction in Braille is not appropriate;
- (iv) consider the communication needs of the child, and in the case of a child who is deaf or hard of hearing, consider the child's language and communication needs, opportunities for direct communication with peers and personnel.....;
- (v) consider whether the child requires assistive technology devices and services.

34 C.F.R. § 300.324 (Authority: 20 U.S.C. 1414 (d)(3) and (4) (B) and (e))

Note: While the first four special factors apply to very specific populations, the requirement in the fifth special factor applies to every child who has an IEP or IFSP.

When students use assistive technology as a part of their educational programs, the IEP/IFSP team must also discuss whether the assistive technology will be used in completing tasks on high stakes assessments. In the list of required activities during the development of the IEP, teams must give consideration to the following requirement:

### **Development of the IEP**

...a statement of any individual modifications in the administration of State or district wide assessments of student achievement that are needed in order for the child to participate in such assessment; and if the IEP Team determines that the child will not participate in a particular state or district wide assessment of student achievement (or part of such an assessment), a statement of--

- (aa) why that assessment is not appropriate for the child; and
- (bb) how the child will be assessed

(20 U.S.C., 1401, Section 614 (d) (1)(A)(v)(I))

## Related Laws and Educational Initiatives

**Accessible Educational Materials:** The National Instructional Materials Accessibility Standard (NIMAS) became part of IDEA in 2004. Accessible Educational Materials (AEM) are textbooks and other core instructional materials that are provided in specialized formats such as Braille, audio, large print, and digital text. They must be provided to students who are identified as blind, physically impaired or print disabled. Students are print disabled if they are unable to read or use standard print based materials but are able to understand the content that is contained in those materials. There is a relationship between Accessible Educational Materials and their delivery through the use of assistive technology to address the functional tasks of reading, writing and communicating.

**Universal Design for Learning:** Special education laws from Section 504 of the Rehabilitation Act of 1973 through IDEA and No Child Left Behind have led a change over the decades that has moved students with disabilities from isolated settings to inclusive settings and from separate curricula to access to instruction with nondisabled peers using the general education curriculum (Hehir, 2009). These changes have created a focus on universally designed environments that are engineered for flexibility and designed to anticipate the need for adaptation, options and alternatives (Rose & Gravel, 2010). In the case of education this move toward flexibility is called Universal Design for Learning (UDL). The concept of UDL is based on three principles:

- Providing multiple means of representation;
- Providing multiple means of action and expressions; and
- Providing multiple means of engagement.

Implementing the principles of UDL for students with disabilities means that lessons are available to students in many formats and that information that was once only accessed by reading a textbook may now be listened to using audio text or e-text (multiple means of representation). In that same sense, a student may have alternate ways of demonstrating knowledge so that instead of just writing with a pencil, the student may create a report using presentation software or video (multiple means of expression). The application of UDL principles reduces the need for assistive technology for some students because they are able to use strategies that meet their specific learning characteristics. However, it does not eliminate the need for all assistive technology. Even when UDL principles are applied in the educational programs of students with disabilities, there is a need for IEP/IFSP teams to continue to document, in the IEP, the types of representation, expression and engagement a student requires.



### **SHAR • A Student with Multiple Disabilities**

*Shar is eleven years old. She attends her neighborhood elementary school and is in the fifth grade. Shar has an intellectual disability and autism. Most of her academic skills are at the beginning second grade level. Shar speaks but her speech is difficult for unfamiliar listeners to understand and she seldom uses complete sentences.*

*Shar is eligible for special education services as a student with intellectual disability and as a student on the autism spectrum. She is fully included in her fifth grade class but has a one-to-one instructional assistant with her at all times. All classroom assignments are modified for her. Shar receives Speech and Language Therapy twice a week for twenty minutes. Her specially designed instructional program is supervised by the Resource Room teacher and implemented by the instructional assistant.*

## **Student Teams and Assistive Technology Service Delivery**

A basic principle in IDEA is that no one person has sufficient knowledge or expertise to make all the decisions about the educational needs of a student with a disability. Because of this principle, IDEA clearly requires that the IEP/IFSP team make all decisions about a student's specially designed instruction, related services and supplementary aids and services. This includes decisions about the selection, operation and implementation of assistive technology devices and services. The *Teams and Education Tech Points* chapter is devoted to a discussion of the role of teams. Each subsequent chapter identifies specific decisions teams must make at that Education Tech Point.

## **IMPLICATIONS FOR SCHOOL DISTRICTS**

Initially, teams of individuals concerned with a particular student used the Education Tech Point questions to help them to determine the needs of that student and the places in the student's educational program where special focus should be placed on assistive technology. As these teams worked with the Education Tech Points, they discovered that they had identified questions and procedures that needed to be addressed by their administrators. As a result groups from individual school districts began to use the Education Tech Point framework as a starting point to develop procedures to help guide their teams in the referral, assessment, planning and implementation processes.

Effective delivery of assistive technology services requires attention to the service component as well as equipment acquisition. In order for assistive technology services to be an effective part of an education program, several things must be in place including:

- Clearly defined procedures and processes related to all aspects of assistive technology devices and services that are compliant with federal law and corresponding state law.
- Trained special education staff with a good understanding of assistive technology and the available resources for information and technical assistance.
- Participation of key team members who regularly raise the question of the need for assistive technology and determine solutions to overcome problems.
- Specialized technology expertise in the form of consultants, therapists or others with technology skills readily available to teach staff and families.
- Administrators, including building principals, who understand the importance of their attention to and participation in assistive technology decision making and service delivery.
- Models of IEP/IFSP goals and objectives for student use of assistive technology that include functional outcomes.
- Sufficient budget or access to special assistive technology funds.
- A process of ongoing evaluation of the effectiveness and appropriateness of the assistive technology

These considerations must be a part of the system for any model to function effectively. The advantages of effective evaluation and selection of equipment can be lost if assistive technology services are not made an integral part of the total educational plan. Many school districts also use the Education Tech Points as a tool to address these systemic concerns.

## **Action Items for Systems Change**

Garmston and Wellman (1995) argued that effective systems change in schools must have a dual focus on both increasing individual service provider's capabilities to provide services and increasing the school district's capacity to provide services. In their later work, they go on to say that

Individuals must have a vision of what services should be and the organization must use systems thinking to achieve that vision (Garmston & Wellman, 2009). A project that puts all of its efforts into training service providers with no attempt to help the agency increase its capacity will not be successful. Changes in district capacity include such tasks as:

- development of procedures that include assistive technology;
- provision of guidelines about assistive technology in the district handbook or on the district website;
- development of forms to be used to request, provide, review or analyze assistive technology devices and service; and
- budgeting and planning for the acquisition of needed assistive technology.

The actions that have been effective in improving general technology services in school districts provide a good model for improving assistive technology services.

The development or improvement of assistive technology services generally requires system change. One of the first steps in paving the way for successful change is to raise the level of concern of the administrators who make and implement policy (Bowser & Reed, 2004). In some cases outside forces such as legal actions raise the level of concern. But that is a painful and expensive way to draw attention to assistive technology needs. School districts need not wait for such a stressful event to occur before beginning to make changes. Another way to raise the level of concern is to carry out a self evaluation of current assistive technology practices to determine how the district is performing when compared to some outside standard.

The *Education Tech Point Profile of Assistive Technology Services in Schools* (Reed, 2012) is included in the *Pulling it All Together* section of the *Education Tech Point* website. It was developed for this kind of self-evaluation. The ETP Profile is an innovation configuration matrix (Hall & Hord, 1987) designed to be used by a special education administrator and special education service providers as a tool for reflection, discussion, and planning. The service providers should include teachers from all levels and disciplines. Although an Assistive Technology Planning Group may make the decisions about how to approach the areas that are of concern, as many people as possible should complete the Profile and participate in discussion about their responses. The discussion should end with the planning group deciding on which areas are the highest priority for change.

In each chapter there are suggestions for specific actions that can facilitate or support system change related to the provision of assistive technology devices and services. The final chapter, *Pulling It All Together*, offers a focus on developing and improving AT services.



**STEVE • A Child with Vision Impairment**

*Steve is four years old. He attends an Early Childhood Special Education (ECSE) preschool. Steve is blind in his right eye but has some vision in his left eye. He has normal intelligence, hearing and motor skills.*

*Steve is eligible for Early Childhood Special Education services as a student with a vision impairment. He attends the ECSE preschool in the morning and goes to a neighborhood day care center in the afternoon until his mom can pick him up from school. Next year, Steve will be entering his neighborhood kindergarten. Steve's team has many questions about the types of supports and services he will need when he enters school.*

## REFERENCES

- Bowser, G. & Reed, P. (1995). Education TECH Points for Assistive Technology Planning. *Journal of Special Education Technology*, 7(4).
- Bowser, G. & Reed, P. (2004). *A School Administrator's Desktop Guide to Assistive Technology*, Reston, VA, Technology and Media Division of the Council for Exceptional Children.
- Garmston, R. & Wellman, B. (1995). *Adaptive Schools in a Quantum Universe*. *Educational Leadership*, 52(7), 6-12.
- Garmston, R. & Wellman, B. (2009). *The Adaptive School: A sourcebook for Developing Collaborative groups (2<sup>nd</sup> Ed.)*. Norwood, MA: Christopher-Gordon Publishers, Inc.
- Hall, G.E. & Hord, S.M. (1987). *Change in Schools: Facilitating the Process*. Albany, NY: State University of New York Press.
- Hehir, T. (2009). Policy foundations of universal design for learning. In D. T. Gordon, J. W. Gravel & L. A. Schifter (Eds.), *A policy reader in universal design for learning*. Cambridge, MA: Harvard Education Press.
- Individuals with Disabilities Education Improvement Act of 2004. Public Law 105-17, (Codified as amended at 20 U.S.C.1401).
- Individuals with Disabilities Education Improvement Act of 2004 [C.F.R § 601.(5)(H)34].
- QIAT Consortium. (2011). *Quality indicators for assistive technology services: Research based revisions. 2005*. Retrieved from [www.qiat.org](http://www.qiat.org).
- Reed, P. (2012). *Education Profile of Assistive Technology Services in Schools*. Retrieved from [www.educationtechpoints.org](http://www.educationtechpoints.org).
- Rose, D. H., & Gravel, J. W. (2010). Universal design for learning. In P. Peterson, E. Baker & B. McGraw (Eds.), *International encyclopedia of education* (pp. 119-124). Oxford: Elsevier.
- Schrag, J. (1990). *OSEP Policy Letter*. Washington, DC: U.S. Office of Education
- Zabala, J.S. (2004). Development and evaluation of quality indicators for assistive technology services. Unpublished doctoral dissertation. Lexington, KY: University of Kentucky.

## RESOURCES

Al-Weshail, A., Baxter, A., Cherry, W., Hill, E., Jones, C., Love, L., Montgomery, F., Podwika, D., Rawlings, B., Reed, A., Taghavi, S., Tilley, J., Woods, J. (1996). *Guidebook for Developing an Effective Instructional Technology Plan*. Mississippi State, MS: Mississippi State University.

Instructional technology is the main focus of this guide, but it contains many useful pointers for assistive technology planners. The overall process is actually identical. And, although the content varies somewhat, there are many useful suggestions here. Version 2.0 of the Guidebook was released officially by the National Center for technology Planning (NCTP) in 1996, and is available from [www.nctp.com/downloads/guidebook.pdf](http://www.nctp.com/downloads/guidebook.pdf) at no charge. Version 3 is a significant upgrade and is available for purchase from NCTP.

Bowser, G. & Reed, P. (2004). *A School Administrators' Desktop Guide to Assistive Technology*. Reston, VA: Technology and media Division of the Council for Exceptional Children. Order from: [www.tamcec.org](http://www.tamcec.org),

A practical guide that describes the school administrator's critical role in developing and maintaining effective, efficient assistive technology services. It includes many practical tips and a self assessment for school administrators.

National Center on Accessible Instructional Materials at CAST, Inc. (2010). *Aiming for achievement: Providing accessible instructional materials*. Wakefield, MA: National Center on Accessible Instructional Materials at CAST, Inc. Order from: [aim.cast.org/experience/training/AIMAchvDVD](http://aim.cast.org/experience/training/AIMAchvDVD)

The AIMing for Achievement DVD includes content on a variety of topics that are important to the provision, selection, acquisition, and use of accessible instructional materials. The DVD contains interviews, supplementary information, and illustrative scenarios that support timely provision of AIM to students who need them for educational participation and achievement. Includes legal issues, a student-centered decision-making process, an overview of specialized formats, a review of multiple sources from which to acquire specialized formats, and an overview of which students can receive materials from each source.

National School Boards Association. (2004). *Technology for Students with Disabilities: A School Leader's Resource Guide*. Alexandria, VA: National School Boards Association.

Provides practical advice on a wide range of issues, including supporting teaching and learning with assistive technology; funding AT programs; understanding the legal and regulatory context for providing services and opportunities to students with disabilities; and managing technology for individualized education programs. Includes case studies about effective AT programs in 10 school districts in NSBA's Technology Leadership Network.

*Critical Issue: Enhancing System Change and Academic Success Through Assistive Technology for K-12 Students With Special Needs -*  
[www.ncrel.org/sdrs/areas/issues/methods/technlgy/te700.htm](http://www.ncrel.org/sdrs/areas/issues/methods/technlgy/te700.htm)

Written by Penny Reed and Carol Leffler, AT Facilitator for Schaumburg School District in IL, this short on line article includes video clips, links and resources. It focuses on developing effective AT services to improve student performance.

## Education Tech Points

Rose, D., & Gravel, J. (2010). *Technology and Learning, Meeting Special Students Needs*. Wakefield, MA: National Center on Universal Design for Learning. (Originally published as: Universal design for learning. In P. Peterson, E. Baker & B. McGraw (Eds.), *International encyclopedia of education* (pp. 119-124). Oxford: Elsevier.) Can be accessed as a free download by searching by title.

Easy to read article that covers the principles and guidelines for UDL

Technology and Media Division (TAM) of the Council for Exceptional Children. (2010). *TAM Technology Fan: Universal Design for Learning*. Order from [www.tamcec.org](http://www.tamcec.org)

Universal Design for Learning (UDL) is an approach to curriculum development, instruction, and assessment that uses instructional and assistive technologies (AT) to accommodate individual learner differences while engaging all learners. This TAM Fan is designed to help plan lessons that incorporate UDL principles. Each blade offers suggestions for implementing UDL on one side—including the use of AT and instructional technology—and possible resources on the other side.

Technology and Media Division (TAM) of the Council for Exceptional Children. (2006). *TAM Technology Fan: Supports for young children*. Order from [www.tamcec.org](http://www.tamcec.org)

Technology supports can help children with disabilities not only to participate, but also to do so independently. Developed by national experts at the Let's Play! Project the TAM Fan is a practical tool for families, teachers, service providers, and other caregivers to use when considering technology items for young children.

Texas Assistive Technology Network. (2009). *Providing Assistive Technology: A Legal Perspective*. Download from [www.texasat.net/default.aspx?name=trainmod.legal](http://www.texasat.net/default.aspx?name=trainmod.legal)

The module provides a comprehensive review of the statutory and regulatory provisions that govern the provision of AT, as well as case law. The legal perspective module was developed so that educators, parents and other related stakeholders might better understand district responsibility to provide AT to students when needed as a part of a free appropriate public education.

## Websites

Let's Play Projects – [www.letsplay.buffalo.edu/play/play.html](http://www.letsplay.buffalo.edu/play/play.html)

Contains excellent information on assistive technology for young children.

National Center on Accessible Instructional Materials – [www.aim.cast.org](http://www.aim.cast.org)

The AIM site serves as a resource to state- and district-level educators, parents, publishers, and others interested in learning more about and implementing AIM and NIMAS.

National Center for Technology Planning – [www.nctp.com](http://www.nctp.com)

Information on a variety of resources related to technology planning at the building, district, state, regional, and national levels. It contains information on ordering their print materials as well as several free tools and articles that can be downloaded. There are links to other related sites and dozens of district and building level technology plans from across the country. These plans and materials can be helpful in planning for effective change related to technology including assistive technology.

National Center on Universal Design for Learning – [www.udlcenter.org](http://www.udlcenter.org)

Provides a wide range of information and resources on Universal Design for Learning (UDL). Begins with basics and includes UDL guidelines, how to suggestions, research and policy.

North Central Regional Education laboratory series on Technology in Education – [www.ncrel.org/sdrs/areas/issues/methods/technlgy/te300.htm](http://www.ncrel.org/sdrs/areas/issues/methods/technlgy/te300.htm)

Read the Pathways articles that include interviews with school district personnel and many excellent concrete examples.

Quality Indicators for Assistive Technology (QIAT) – [www.qiat.org](http://www.qiat.org)

The Quality Indicators for Assistive Technology provide clear statements describing the components of quality AT services. These statements have been validated through research to show that they are important descriptors of quality AT services. The website includes the indicators, self-assessment matrices, many support documents, and the archived discussions of the QIAT list serv.

Wright’s Law: IDEA 2004 Statute and Regulations – [www.wrightslaw.com/idea/law.htm](http://www.wrightslaw.com/idea/law.htm)

Wright’s law is an excellent source of legal information about IDEA in general. It provides links to IDEA statutes and regulations as well as to a wide variety of topical legal briefs. From the IDEA main page, readers can select or search to find specific information.

