



Pulling it All Together

During the last two decades the models of effective AT service provision have changed and matured. Frameworks and guidance such as Education Tech Points and Quality Indicators for Assistive Technology Services have helped to move the provision of AT services from a medical model where an external “expert” recommended specific AT, toward a more integrated, student centered model where the teams directly serving a student make AT decisions with technical assistance and support, when needed, from individuals who have more extensive AT experience and expertise. This chapter will focus on the actions that can be taken at the district level to develop and improve AT service delivery systems.

STUDENT CENTERED QUESTIONS LOOKING AT STUDENTS COLLECTIVELY

- Are all students who need AT getting it?
- Do our AT services meet the need of all of our students with disabilities?
- How could the AT needs of all students using AT be addressed more effectively?
- What supports will be required to meet the needs of all students?

ACTIONS FOR THE STUDENTS’ TEAMS

- Compile data about progress of students who use AT.
- Review policies and procedures in your area that guide your service delivery.
- Ensure that administrators are informed about improvement efforts and participate in them.

IMPLICATIONS FOR DISTRICTS

- Administrators play an important role in AT service delivery especially in leading change.
- There is a critical need for training/professional development at all levels (e.g. all grade levels and buildings, individuals in all roles including general education teachers and administrators).
- Guidance in the form of written and widely disseminated procedures is needed throughout the district/agency.
- Assistive technology services should be regularly evaluated just like any other district/agency program.
- Assistive technology services can be revised and improved.

EDUCATION TECH POINTS: PULLING IT ALL TOGETHER

Pulling assistive technology services together into an effective, equitable and consistent array of services requires an agency-level focus. When school districts decide to improve their assistive technology service it is important that their efforts include a dual focus for effective system change. Based on effective systems change in all areas of education (Garmston & Wellman, 1995, 2009), it is apparent that districts must ensure that they develop the individual professional AT capabilities of all professionals who support the educational programs of children with disabilities. Second, they need to expand the agency's organizational capacity to address the AT needs of those students. This chapter will provide suggestions for both components.

Professional development is an important aspect of addressing the AT skills of staff members. While training should be provided to increase awareness of AT and its uses, to help staff understand how to assess the need for and effectiveness of AT, and to operate the devices they encounter, experience has shown that this sort of training is not enough to ensure adequate implementation. Those who work with students with disabilities who use assistive technology must also be aware of district resources and the procedures to access them, involved in collegial interactions around AT, and know how to use a variety of technology integration and implementation strategies. Research about the effectiveness of professional development indicates that ongoing coaching and mentoring following staff development makes a significant difference in the ability of professionals to apply their new skills in the context of the educational program. (Joyce and Showers, 2002)

There are numerous approaches that can be taken to expand an agency's organizational capacity. Development of policies, handbooks and forms to guide practice helps everyone involved with a student who uses AT to know and understand the agency's expectations. Establishing teams that are trained and supported in their efforts to develop increased AT capacity ensures that multiple perspectives are addressed in agency AT services. Acquisition of resource materials and equipment for training and trial periods helps to ensure that informed AT decisions will be made. Each of these activities requires the allocation of resources in the form of personnel, physical resources and time in addition to monetary resources.

The initiative to improve assistive technology services may come from individuals within the agency who have an interest in and a passion for providing children with the assistive technology they need or it may come from an administrator who sees a programmatic need. Regardless of the source of improvement efforts, pulling it all together for AT requires that agencies look at their assistive technology services from each of these perspectives.

STUDENT CENTERED QUESTIONS

Improving AT services starts with information gathering. It is common for improvement efforts to begin with a look at what is already happening within a district's AT program. Whether this is initiated by the student centered team or by an agency leader, student centered questions should be asked. Pulling it all together requires that questions like these be asked about *all* students with disabilities:

- Are all students who need AT getting it?
- Do our AT services meet the need of all of our students with disabilities?
- How could the AT needs of all students using AT be addressed more effectively?
- What supports will be required to meet the needs of all students?

One strategy for initial information gathering is the use of a self-rating tool that addresses all aspects of AT services. The *Education Tech Points Profile of Assistive Technology Services in Schools* (Reed,

2012) was developed to serve as a school or district-wide survey. Its questions use the Education Tech Points framework to help identify areas of strength and need in a district's service model. It may be used by an AT planning team or as a survey of all staff. The *ETP Profile of Assistive Technology Services in Schools* is included in the *Assessing Your Needs* Section of the *Pulling It All Together* on the *Education Tech Points* website.

ACTIONS FOR STUDENT TEAMS

Program improvement requires that team members step back from a focus on the individual student and look at the cumulative results of AT services for all students. The actions for the student teams must be taken across multiple teams throughout the district or agency. It is the opposite of developing an IEP, where each team must focus all of their attention on the student of concern. When working to improve assistive technology service design and delivery, a more comprehensive, "big picture" approach is warranted.



Compile data about progress of all students who use AT: While individual student data is gathered and analyzed in order to improve that student's performance, the compilation of data about multiple students can be used to evaluate program effectiveness. This data may include information from IEP/IFSPs about the number of students using AT and the kinds of AT that they use. It may also include student performance data to indicate whether AT helps students to meet their educational goals. It is important to gather data about progress and to analyze that data to determine if the AT services being provided are having the desired impact.



Review policies and procedures that guide service delivery:

When agencies have established AT procedures, improvement efforts center around reviewing them to determine whether additional guidance is needed. Teams working to improve AT services might ask questions about policies and procedures such as the following in order to identify areas for improvement:

- Are the established procedures implemented consistently across educational settings?
- Do the procedures provide effective guidance to the teams who need to use them?
- Is there any particular action or step in the procedures that is frequently problematic?

Agencies that do not have AT procedures or operating guidelines can benefit from models produced by others. The *Resources* section of *Pulling It All Together* on the *Education Tech Points* website. includes two models for operating guidelines developed by the Georgia Project for Assistive Technology (GPAT) and the Oregon Technology Access Program (OTAP).



Ensure that administrators are informed about improvement efforts and participate in them: Administrators are key players in any system change. In a survey of established assistive technology teams, only 20% stated that administrators initiated their AT team development, yet without administrator involvement, AT improvement efforts are likely to be less effective and more difficult to sustain (DeCoste, Reed, & Kaplan, 2005)

Responsibilities of Team Members

Team members working with students who use assistive technology play an important role in improving AT services across the agency because they have access to the data that is needed to focus the improvement effort. By reviewing performance across students, patterns of service delivery can be identified. For example, when student data is reviewed, it may become apparent that a much higher percentage of the students with learning disabilities from one elementary school are using AT than similar students from two other elementary schools. That might lead to analysis of the same students' progress in middle school to see what differences occur or persist in their access to AT, their use of AT, and their progress in the curriculum areas impacted by their disabilities. Each team member must gather and share data for each of the students with whom he/she works.

To effectively change the way AT services are delivered, team members must also ask hard questions about their own beliefs, habits and style. They must look at the progress of the students they serve and at how they schedule and deliver services. Working together they must ask how they could be more effective. This does not mean, requesting additional staff members to do things in traditional ways. It means asking how they can be the most effective given the existing resources. When there is a need for more staff it is critical to first look at what is being done well, under what circumstances, and determining how to spread that effectiveness across a greater number of students. When information like this is presented to district decision makers, they are able to make data-based decisions about resource allocations of staff as well as funding, time allocation and staff assignments.

While each student team member must provide the student data, the work of change requires a district/agency level committee to analyze and improve services. Some AT service providers need to be on that committee, but an AT planning committee also needs to have several other members. Its make-up will be described later in this chapter.

IMPLICATIONS FOR DISTRICTS

Administrators play an important role in AT service delivery especially in leading change. Not all administrators recognize the importance of their role in AT and tend to trust that the delivery of AT services must be going just fine if they do not receive any complaints. Others may believe that if their district/agency has an AT Coordinator or Team Leader, that that person is solely responsible for all aspects of AT service delivery. However, because implementation of AT services necessarily involves such a broad range of personnel from general education teachers to instructional technology technicians, it requires the leadership of building principals and central office administrators working together.

The Balanced Scorecard (Kaplan & Norton, 1991) suggests that efforts toward program improvement can be looked at from the following four perspectives:

- Customer, Stakeholder and Implementer Perspective
- Internal Process Perspective
- Financial Perspective
- Learning, Growth and Innovation Perspective

The *Assistive Technology Balanced Scorecard for Administrators* (TATN, 2004) addresses each of the four balanced scorecard perspectives in relation to improving AT services. Figure 1 shows one of the self-rating pages from the *Assistive Technology Balanced Scorecard for Administrators*. Based on a vision that “Students with disabilities receive the AT devices and services needed to participate in educational programs and benefit from FAPE,” it offers objectives and suggests quantitative measures that can be used to identify program needs and improve services.

Customer, Stakeholder and Implementer Perspective	
Objectives	Measures
Climate:	
Promote high expectations for students with disabilities who use assistive technology (AT)	Students who use AT show continuous improvement as measured by IEP goals, curriculum assessment measures and district and state assessment measures
Develop and maintain a climate of collaboration, communication and continuous improvement	Opportunities for collaboration, communication and continuous improvement are an established part of AT processes and operations
Foster a school environment that has a low level of conflict and uses conflict resolution strategies when conflict arises	The number of complaints and difficult IEPs that involve AT is reduced
Collaboration:	
Promote student and family involvement with AT devices and services	The input of family members and students is solicited, recorded and used
Coordinate AT services with other educational services and agencies	There is documented evidence of ongoing AT collaboration with instructional technology, outside agencies and other AT providers
Collaborate and plan with instructional technology (IT) on an ongoing basis	The input of IT school personnel is solicited, recorded and used
Advocacy:	
Ensure equity of access to IT and AT	Students with a wide variety of disabilities and skill levels have access to the IT and AT they need to receive FAPE
Advocate for AT concerns at local, state and national levels	Administrators’ involvement in planning groups, committees, etc. where AT issues are addressed is documented

FIGURE 1: BALANCED SCORECARD FOR ASSISTIVE TECHNOLOGY SERVICES (TATN, 2004)

The four perspectives from the *Assistive Technology Balance Scorecard* will be used for the discussion of AT program evaluation and improvement in this chapter.

Customer, Stakeholder and Implementer Perspective

Opportunities for collaboration, communication and continuous improvement are an established part of AT processes and operations when an agency attends to the needs of students who use assistive technology, their families and all of the district employees who provide services to them. Each team member provides input into the procedures and services and conflict is minimal. Collaboration extends beyond special educators to general educators, instructional technology providers and curriculum coordinators. As a result, students with a wide variety of disabilities and skill levels have access to the AT they need.

In order to accomplish this vision, administrators are involved in planning groups and committees, where AT issues are addressed and they are able to identify opportunities to suggest ways to include

assistive technology and assistive technology improvement activities in the work of a variety of groups.

A focus on systems change requires a great deal of administrative support and guidance throughout the process. Assistive technology services cannot be fair and equitable without administrator support because it is administrators who have the big picture of services across buildings and districts and who have the power to ensure that there are guidelines in place that are used by each IEP/IFSP team when addressing the need for and use of assistive technology.

Administrators also supervise and evaluate staff members who are engaged in supporting students who use AT. Because team members have no authority to require another team member to carry out a specific task or oversee a particular aspect of the child’s performance, only an administrator/supervisor can ensure that the IEP/IFSP is implemented across school environments in a consistent and equitable manner.

Figure 2 provides some simple indicators of that can help administrators begin to look at the general picture of how effectively assistive technology is being implemented.



 Signs of Excellence	 Red flags related to AT
<ul style="list-style-type: none"> • Enthusiasm when discussing the student’s progress and pride in the student’s AT use. • Comments that show specific knowledge of what AT is and how it can help students. • Conversations that indicate teachers regularly have students use at least some AT tools. • Technology, including assistive technology, used regularly throughout the school. • Teacher acknowledged for effective use of AT in their classrooms. 	<ul style="list-style-type: none"> • Teachers do not seem to know that AT is included in a student’s IEP; or how it is being implemented. • Negative conversations about AT or AT service providers take place frequently. • The AT Specialist seems to be working in isolation with little or no involvement of teachers. • AT Consideration in the IEP meeting is typically cursory with little or no discussion. • AT is rarely mentioned when brainstorming about how student progress can be increased.

FIGURE 2. SIGNS OF EXCELLENCE AND RED FLAGS RELATED TO AT (BOWSER & REED, 2011)

Special education administrators, principals and other supervisors may not be aware of their role in the effective provision of assistive technology services. This is particularly true of building principals. In many schools principals supervise all staff in their building including the special education and related services personnel. In other cases a special education director or coordinator may supervise the special education staff while the building principal supervises the general education staff. Since effective AT service delivery requires collaboration and cooperation across these two groups, problems may arise unless all administrators recognize the specific roles played by the staff members whom they supervise. If the IEP team determines that a student with a reading disability

requires access to a computer for access to Accessible Instructional Materials (AIM) and writes that in the IEP, collaboration between the school principal, special education coordinator and instructional technology support staff in addition to the classroom teacher and special education support person may be needed to make this happen.

Quality Indicators for Administrative Support provide additional insight into the role of the administrator.



Quality Indicators for Administrative Support of AT Services

Another aspect of developing effective, efficient assistive technology services involves the quality of administrative support throughout the school district or agency. Administrative support indicators define the critical areas of administrative support and leadership for developing and delivering assistive technology services. It involves the development of policies, procedures, and other supports necessary to improve quality of services and sustain effective assistive technology programs.

1. The education agency has written procedural guidelines that ensure equitable access to assistive technology devices and services for students with disabilities, if required for a free, appropriate, public education (FAPE).
2. The education agency broadly disseminates clearly defined procedures for accessing and providing assistive technology services and supports the implementation of those guidelines.
3. The education agency includes appropriate assistive technology responsibilities in written descriptions of job requirements for each position in which activities impact assistive technology services.
4. The education agency employs personnel with the competencies needed to support quality assistive technology services within their primary areas of responsibility at all levels of the organization.
5. The education agency includes assistive technology in the technology planning and budgeting process.
6. The education agency provides access to on-going learning opportunities about assistive technology for staff, family, and students.
7. The education agency uses a systematic process to evaluate all components of the agency-wide assistive technology program.

Internal Process Perspective

Part of the provision of high-quality assistive technology services is the development and dissemination of written procedural guidelines that are legal, ethical and written in accordance with district policies and state and federal statutes. School leaders can help to ensure that emphasis is placed upon following those procedural guidelines by the things they mention in staff meetings, require during observations, and reinforce with both verbal and nonverbal statements.

Administrators ensure that skilled staff members are available to implement AT as planned by the IEP team. Many items used as assistive technology are simple, commonly available tools that will be used primarily in the classroom for meaningful participation in the general education curriculum. All staff including general educators must have a certain level of knowledge and comfort with technology and be able to fulfill their role in ensuring that it is used appropriately and consistently

throughout the daily schedule. Administrators can help to ensure that staff members have the knowledge and skills they need to be effective AT implementers by seeking out staff with the desired AT competencies and holding them accountable for using their AT skills. Written descriptions of job requirements that include knowledge, skills and responsibilities for staff members who provide specific AT services help to ensure a qualified workforce with the expertise needed to support students' use of assistive technology.

Clearly written procedures that are widely disseminated, understood and used are critical to the provision of AT services that are fair and equitable across classrooms and buildings within the district/agency. The procedures can be on the district website, in a staff handbook, or both. The most important factor is that all staff members know that they exist and how to access the information and the forms included in it. *The Pulling It All Together* section on the *Education Tech Point* website contains two samples of guidelines for school districts, one from the Oregon Technology Access Program (OTAP) and one from the Georgia Project for Assistive Technology (GPAT). Many other states have sample guidelines. Check with your state education agency to see if one exists. If it does, it will include any specific procedures that are unique to your state.

Financial Perspective

When people think of the financial perspective and assistive technology, they tend to focus on budgeting for the purchase of assistive technology devices. But there are other associated costs as well. For example, if an agency decides to maintain a library of AT devices that can be loaned for trial periods or long term use by students, space must be allocated to store the devices when they are not being used. A cataloging and tracking system also will be needed. If sufficient resources are not allocated to equipment management, maintenance, and repair, the funds used for the initial purchase may not be effectively utilized. Figure 3 suggests some of the items that should be included when budgeting for assistive technology use in a school district and provides two examples of how their budgets might look.

Providing the AT device is only a beginning to effective assistive technology services. There is nothing more costly than spending money on an AT device and staff and student training one year, then letting it fall into disuse the next only to start over from scratch the third year to try to figure out what AT might help a student. Continuity from year to year requires administrative oversight and direction. AT team members have no authority to require their fellow teachers to implement what is on the IEP/IFSP. Only the administrator who supervises those teachers can do that.

Once AT devices are purchased and staff members are trained in their operation and integration, districts should track device use and determine whether the use of assistive technology enables students to accomplish their educational goals. Data that is immediately available regarding student use of assistive technology and the location and usefulness of each device that has been purchased helps to ensure fiscal accountability as well as high quality assistive technology services. This is only true, however, when the student and device data are reviewed regularly and plans are made to address identified issues.

Other aspects of resource allocation involve management of school calendars, staff assignments and opportunities for staff members to meet to work together on AT tasks. These are primarily decided at a district level. Districts that consciously allocate time, material resources and personnel assignments as well as funds are more likely to provide effective, efficient assistive technology services. Todis & Walker (1993) found that time to meet and talk is critical in the successful implementation of assistive technology.

Budget Category	District A	District B
PERSONNEL		
Certified Salaries	AT Specialist .3 Occupational Therapist .3 Speech Language Pathologist 2 Vision Specialist	.3 Occupational Therapist .5 Speech Language Pathologist .5 teacher consultant
Classified Salaries	1.0 AT program assistant	---
OPERATING EXPENSES: PURCHASED SERVICES		
Instructional, Professional Services	6 days staff development	2 days staff development 8 days evaluation services
Repairs and Maintenance	Maintenance contracts for 5 devices Funding for repairs as needed	Funding for repairs as needed
Rentals	14 months equipment rental	Use State Lending Library
Printing/Copying	Manuals, handouts, operating guidelines, tech tips newsletter	Handouts
OPERATING EXPENSES: SUPPLIES AND MATERIALS		
Consumable Supplies	Paper, printer cartridges, pencil grips, adapted writing tools	Paper, printer cartridges, pencil grips, adapted writing tools
Books	Reference materials and instructional manuals	Reference materials and instructional manuals
Non-Consumable Items (\$1-\$1000)	Slant boards, adapted seating, switches, etc.	Slant boards, adapted seating, switches, etc.
Computer Software	Various software, early childhood titles Site licenses	Various software titles, expand to middle school
OPERATING EXPENSES: CAPITAL OUTLAY		
Additional Equipment (over \$1000)	Laptop computer systems with scanners Augmentative communication devices	4 classroom computers 2 scanners
Replacement Equipment (over \$1000)	Replace one augmentative communication device	Upgrade 3 computers
OPERATING EXPENSES: DUES AND FEES		
	Assistive technology newsletter Technology and media division membership	3 State Assistive Technology Conference registrations

FIGURE 3: SAMPLE BUDGETING STRATEGIES FROM TWO DIFFERENT DISTRICTS (BOWSER & REED, 2004)

Learning, Growth and Innovation Perspective

No matter what your situation, whether you are working alone, or you have a group of committed people; whether you are in a small rural district or a large urban one; whether you have no assistive technology services in place, or generally effective services; you can change and improve your assistive technology services with an organized, planned approach. As school districts strive to improve their assistive technology services a pattern has emerged. The districts making the most rapid and dramatic changes are the ones that take the following steps:

Education Tech Points

- Create a planning committee to lead the change;
- Complete a self assessment;
- Develop (or better disseminate) written operating guidelines ;
- Identify ways to integrate assistive technology initiatives into instructional technology plans and district/school improvement plans;
- Create a vehicle for communication about assistive technology;
- Provide a variety of assistive technology professional development and training opportunities;
- Establish sources of support and technical assistance; and
- Arrange access to assistive technology for trial use.

There are a variety of ways to accomplish each of these to best meet the specific needs of each district.

Action Items for Systems Change

The actions required to change and improve AT services across the board are those listed above beginning with establishing a planning committee to lead the charge and completing a self-assessment.



Create an Assistive Technology Planning Committee: A planning group is critical in developing and improving assistive technology services and in system change. Virtually all change begins with a single person realizing, “We could be doing this better.” If you are that person, the first step is to gather around you a core of people who can help you plan and implement the changes needed to improve your assistive technology services. The most rapid and widespread change takes place when at least some of those people are administrators, but every group of people dedicated to improvement can make change in their system.



Complete a self-assessment instrument: *The Education Tech Point Profile of Assistive Technology Services in Schools* is a tool that can be used to assess strengths and weaknesses in providing AT devices and services. It is designed to collect information about each point in the Education Tech Points framework. The Profile can be used to survey staff members, parents and other key players in the provision of assistive technology services. It is an excellent tool to generate awareness and discussion about the components of successful AT service provision.

A second self-assessment tool that can be valuable for the assessment of a district’s assistive technology program design, is the *Quality Indicators for Assistive Technology Services (QIAT) Self Assessment Matrix*. This instrument, based on the Quality Indicators for Assistive Technology Services which have been discussed throughout the *Education Tech Points* manual, is also designed to help districts rate their assistive technology services and identify areas in need of improvement. The eight indicator areas are Consideration, Assessment, AT in the IEP, Implementation, Evaluation of Effectiveness, Transition, Professional Development and Administrative Support for AT. They can be downloaded from www.qiat.org.



Develop written operating guidelines: Operating guidelines or procedures explain how to access and implement assistive technology services. When we are traveling a new route, we need a good map (or GPS) to help us get where we need to go. That is the role of the information on a district website or in a staff handbook or procedures manual. Whatever a district has available that provides guidance in implementing all types of services, needs to include assistive technology. It should begin with a simple explanation of what assistive technology is, with examples. It should then explain where in your district forms you are expected to address assistive technology, again with examples. Handbooks that list resource people and how to contact them and resource materials available in the district are extremely helpful. The *Pulling It All Together* section of the *Education Tech Points* website provides two sample procedures manuals that have taken slightly different approaches to this task.



Identify ways to integrate assistive technology initiatives into instructional technology plans and district/school improvement plans: Many school improvement initiatives are addressing issues that relate well to assistive technology. For example, an initiative to improve reading scores might be helped significantly if teachers understand and use AT with struggling readers. Districts that are implementing a Response to Intervention (RTI) program are regularly collecting and reviewing data. This makes the collection and use of data with students using AT much easier. There are many assistive technology tools that can be helpful with students who require Positive Behavior Supports. Finding the overlap and helping to work together can benefit both staff and students.



Create a Vehicle for Communication about assistive technology: Districts that make the most efficient change are the ones with a clear vehicle for communication and information dissemination. In some cases that is a section in an existing district newsletter or website. In others it is a separate newsletter or information sheet devoted to news about assistive technology. One district provides a Tip a Day related to AT use on its district website and in the form of a desk calendar (Bugaj, 2008). Some districts have also had good results with establishing a bulletin board or table where information is posted and updated on a regular basis. The kinds of things that people find useful are simple “cheat sheets” or “quick lists” that give quick and easy directions for operating specific hardware and software, tips on low cost assistive technology to make or buy, ideas for utilizing assistive technology within the curriculum, resource information about web sites and new print materials, announcements of coming training, and phone numbers to call to get help with problems. In Montgomery County, Maryland the High Incidence Assistive Technology program (HIAT) provides many of these things on their district website (See Website Resources at the end of this chapter).



Provide a variety of assistive technology professional development and training opportunities: Staff development is a key in improving assistive technology services. There is a critical need for training/professional development at all levels (e.g. all grade levels and buildings, individuals in all roles including general education teachers and administrators). Service providers cannot provide effective services without basic knowledge about assistive technology devices and services. The staff development component of a system change project must offer a variety of training opportunities including overview and introductory workshops for all staff, specific training on assessing students' need for assistive technology, open labs and demonstrations, workshops on specific devices and software, and training on implementation strategies and integration of assistive technology into the curriculum.

There are a variety of ways to provide training. The most important aspect of planning for assistive technology training is to offer a wide variety of opportunities designed to meet the varying needs of individuals. Some learners need short sessions where there isn't as much to digest at once, others need longer sessions so they get a "big picture" and can fit the information together more easily. Offering a menu of training that includes demonstrations, open labs, topical workshops, study groups that focus on a specific topic such as augmentative communication or a specific group such as early childhood, and classes with continuing education credits or graduate credits available meets the needs of a wide range of service providers.

A variety of schedules; utilizing inservice days, open labs, after school sessions, short presentations at every staff meeting, sequences of workshops, and continuing education credits or, when possible, graduate credit through a university are all part of an effective staff development plan. People learn in different ways and at differing rates, a flexible menu of opportunities to learn about assistive technology is most effective. Webinars are a great resource that can be accessed without the need to travel to a specific place. The Quality Indicators for Professional Development about AT offer a description of effective professional development about AT.



Quality Indicators for Professional Development about AT

Quality Indicators about assistive technology staff development define the critical elements of quality professional development related to AT.

1. Comprehensive assistive technology professional development and training support the understanding that assistive technology devices and services enable students to accomplish IEP goals and objectives and make progress in the general curriculum.
2. The education agency has an AT professional development and training plan that identifies the audiences, the purposes, the activities, the expected results, evaluation measures and funding for assistive technology professional development and training.
3. The content of comprehensive AT professional development and training addresses all aspects of the selection, acquisition and use of assistive technology.
4. AT professional development and training address and are aligned with other local, state and national professional development initiatives.
5. Assistive technology professional development and training include ongoing learning opportunities that utilize local, regional, and/or national resources.
6. Professional Development and Training in assistive technology follow research-based models for adult learning that include multiple formats and are delivered at multiple skill levels.
7. The effectiveness of assistive technology professional development and training is evaluated by measuring changes in practice that result in improved student performance.



Establish sources of support and technical assistance: Technical assistance is the one-on-one help that can make a difference between a technology user giving up in frustration or moving forward. It needs to be readily available, but may be accessed in person, over the telephone, via email or through video conferencing.

1. **Identify Sources of Technical Assistance:** The first step in providing technical assistance is to create a highly visible source of information and help. People need to know where to seek assistance when they need it. While early adopters of assistive technology typically called vendors for technical assistance, later adopters of an innovation are not as likely to do so. In addition, many of their questions are about implementation and not all vendors can, or should, provide that type of help. Service providers within the school district or agency need to know who to call for assistance and when and where they can connect with them. In addition to being available and accessible the person(s) providing technical assistance can be proactive by providing problem solving forums for people. The provision of technical assistance is an art as well as a skill. It requires the provider to be sensitive to what information and how much information the person seeking assistance can handle (Bugaj & Norton-Darr, 2010).

The AT resource people within the school district or agency, in turn, need to be connected to each other and to expertise beyond the agency through participation in AT nings, access to AT blogs and wikis, and participation in electronic lists focused on AT such as the Quality Indicators for Assistive Technology.

2. **Develop AT Learning Communities:** Another aspect of supporting program improvement and system change is the development of learning communities that focus on assistive technology devices and integration. Service providers and administrators need to be able to share information with other professionals who are facing and meeting the same challenges. Learning communities provide the opportunity to discuss with other professionals what seems to be working, what doesn't seem to be working, and to reflect on why. It also provides an opportunity to share successes. Learning communities can keep people going when the going gets tough.

Learning communities are often offered within a single district. But we have seen great examples of individuals who have created support sources beyond their district. In one metropolitan area there is a First Tuesday Group. They meet the first Tuesday of every month after school to share assistive technology ideas and problems. When they identify a training need, they find someone within the group or from outside to provide training at a subsequent meeting. The First Tuesday Group is making a difference for assistive technology service providers in many school districts.

Groups in a rural area may not be able to get together in person because of the distance. One group "met" on a regular basis by setting up an after school conference call on a specific date each month. Recently they moved on to e-mail as

a way to get together and share ideas. Another group used their district's distance learning equipment to meet once a month. They found a time that was not already scheduled and were able to use it at no cost to them. The electronic mailing list of the Quality Indicators for Assistive Technology Services (QIAT) is an excellent networking and collegial support tool. Over 2000 members of the QIAT community are available when AT providers have questions about services, support and assistive technology devices. Anyone is free to join the QIAT list by going to the QIAT web site at: http://natri.uky.edu/assoc_projects/qiat/listserv.html

Existing networks such as reading teachers associations, branches of USAAC (United States Society for Augmentative and Alternative Communication, and TAM (Technology and Media Division of the Council for Exceptional Children) offer opportunities for collegial support geared to specific topics. The International Society for Technology in Education (ISTE) has a Special Education Interest Group (SE-SIG) for people interested in the topic of technology for students with disabilities. Networks such as these encourage practitioners to maintain a task focused approach to assistive technology



Arrange Access to Assistive Technology for Trial Use – In the chapter on Trial Periods the importance of trial use was described. Districts who work to make this available see much more rapid improvement in their assistive technology services. A regional Assistive Technology Planning Group in Wisconsin increased their access to assistive technology for trial use by agreeing to loan equipment to each other if it was available. They devised a questionnaire to begin a database of what was available within their districts. They decided to include equipment that was currently being used with a specific student because a prospective user could call and talk to someone about what they liked or didn't like about the assistive technology and arrange to visit and see it in use if they wanted, even though they could not borrow something that was being used.

Service providers need access to a variety of resources to help them successfully acquire and use information about assistive technology. Successful systems change projects have demonstrated that access to print, disk and on-line resources as well as devices to try out is absolutely necessary for system change in assistive technology.

Service providers need access to both hardware and software to try, learn to operate, and utilize for trials with students prior to purchase (McInerney, Osher, & Kane, 1997). Large school districts may be able to develop preview libraries, but smaller school districts will need to collaborate or seek assistance from an intermediate education agency, their state education agency or a state Tech Act Program for equipment for preview and evaluation.

- 1. Access to used equipment including computers:** Because school districts are struggling with stricter budget limitations than ever before, successful projects also work to make technology resources more available in other ways too. A Used Equipment Marketplace, which is a free classified ad, where anyone can advertise to sell, donate, or seek any assistive technology is an inexpensive but effective tool. Used computers may be made available to schools and families for use with students with disabilities. Several states have formed partnerships with the

National Cristina Foundation or other organizations to obtain and deploy used computers with appropriate software to be used by students with disabilities. Illinois has been a leader in obtaining used computers for school with their partnership with the National Cristina Foundation and others. Infinitec the assistive technology program of United Cerebral Palsy of Greater Chicago through its Assistive Technology Exchange Network has distributed more than 20,000 complete computer systems. This equipment is donated, free of charge, to learners in public schools in 1052 schools in 516 cities throughout the state of Illinois.

2. **Equipment Databases:** Another way to increase access to assistive technology resources is to survey all buildings (or districts working collaboratively) to create a database of available assistive technology. Both items that are in use and those that are not currently being used can be listed so that buildings or districts can borrow items from each other, visit a site to see a device being used, or call a service provider for information about how they like a particular device.



Establish a system for yearly evaluation of AT services. Assistive Technology services need to be evaluated and “tweaked” on a regular basis like all other services. While the services for any given student must be individualized to meet that student’s unique needs, across the board services must be consistent, equitable, and effective. This only happens when they are examined from a district/agency perspective.

Assistive technology devices and services have the potential to significantly impact the lives of students with disabilities. Research has shown that relative to other interventions, AT has a significant effect on meeting IEP goals (Watson, Ito, Smith & Anderson, 2010) and that underutilization of AT may delay successful transitions to independent living and community participation (Johnson, Dudgeon, Keene & Walker, 2006). It is our belief that the use of a systematic approach such as that provided by Education Tech Points can ensure that all students who need assistive technology have it. We hope that the information provided in this manual will increase the likelihood of that happening.

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RESOURCES

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, 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.

Bowser, G., & Reed, P. (2011). *The ABC's of Effective Administrator Support of Assistive Technology Services*. Winchester, OR: Coalition for Assistive Technology in Oregon. Order from www.educationtechpoints.org

One of a series of six one-page Quick Sheets, it identifies specific indicators of excellence in administrative support and red flags related to AT services.

Bowser, G., & Reed, P. (2011). *The ABC's of Improving Assistive Technology Services*. Winchester, OR: Coalition for Assistive Technology in Oregon. Order from www.educationtechpoints.org

One of a series of six one-page Quick Sheets, it is an outstanding tool for program evaluation and identification of areas of strength and weakness in your AT services.

Florida Department of Education. (2008). *Assistive Technology Assessment Competencies and Resource*. Download from www.florida-ese.org/atcomp

Developed by the Florida Department of Education's Bureau of Exceptional Education and Student Services, this list of eight competency areas provides competency descriptors, benchmarks and resources for assistive technology specialists. While the competencies primarily focus on assessment skills, competency #9 also describes implementation skills.

Quality Indicators for Assistive Technology Consortium. (2006). *Administrator's Guide to Effective Technology Leadership*. Download from natri.uky.edu/assoc_projects/qiat/resources.html

Describes what effective technology use looks like for administrators, teachers, and students. Includes suggestions for encouraging effective technology use in schools. Applies to all technology including AT.

QIAT Consortium. (2011). QIAT Self-assessment Matrix. Download from www.natri.uky.edu/assdc_projecxts/qiat/qualityindicators.html

The QIAT Self-assessment matrix provides descriptive steps ranging from the unacceptable to the ideal that can be used as benchmarks to determine the current status of practice related to a specific goal or objective and guide continuous improvement toward the ideal. It enables users to determine areas of strength that can be built upon as well as areas of challenge in need of improvement.

Reed, P., Kaplan, M., & Bowser, G. (2009). *Assistive Technology Trainer's Handbook*. Roseburg, OR: National Assistive Technology in Education Network. Download from www.natenetwork.org

This manual is designed for all AT service providers who train others. It contains research-based information about planning, providing and evaluating training with step-by-step planning guides and worksheets.

Reeder, B., Temple, C., Carr, J, Fleming, M. B., and Tracy, M. (2010). *Developing Your Assistive Technology Leadership: Best Practices for Success*. Volvo, IL: Don Johnston, Inc.

A toolkit of proven strategies that will help jump-start your AT initiatives. Written by five AT consultants from Fairfax, VA who have not only developed a recognized AT model, but consulted with 100's of school districts across the country. Includes information on developing AT teacher leaders, measuring AT outcomes and utilizing AT resources.

Websites

Quick Tech Guides and Video tutorials at High Incidence Assistive Technology (HIAT), at Montgomery County Public Schools, Rockville, MD – www.montgomeryschoolsmd.org/departments/hiat/tech_quick_guides/

A continually changing selection of short tech guides with step by step instructions for how to use the software or how to accomplish a specific task such as speak the text.

National Conferences About Assistive Technology

ATIA Conference – Orlando, Florida – www.atia.org

The annual conference of the Assistive Technology Industry Association are held each year in Orlando in January. This rapidly growing conference offers a wide variety of perspectives on assistive technology.

Closing the Gap – Minneapolis, Minnesota – www.closingthegap.com

Annual conference on assistive technology for people with disabilities held in Minneapolis in October. For more information contact Closing the Gap, P.O. Box 68, Henderson, MN 65044

Technology and Persons with Disabilities-CSUN (California State University Northridge) – Los Angeles, California – www.csun.edu/cod/

Annual conference on assistive technology for people with disabilities held in San Diego in February or March. For more information contact California State University at Northridge, Center on Disabilities, 18111 Nordhoff Street, Northridge, CA 91330-8340; 818/677-2578.

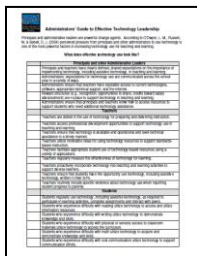


in the

PULLING IT ALL TOGETHER SECTION

of the Education Tech Points Website

For Teams



Administrator's Guide to Effective Technology Leadership (QIAT, 2006).

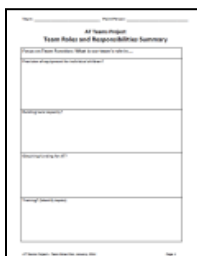
A handy checklist for administrators as they look at what principals, teachers, and students are doing with

technology, including assistive technology.



Plan for Improving AT Services (2006).

A form to be used by an AT planning group to identify and plan for AT program improvement activities.

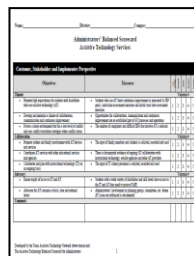


Team Roles and Responsibilities Worksheet (2011).

Worksheet to help the team work more collaboratively by identifying and discussing the relative importance of

their various roles and responsibilities.

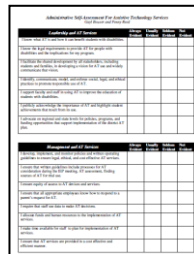
For Use in District Planning



Administrators' Balanced Scorecard (TATN, 2004).

This self-assessment instrument was developed by the Texas Assistive Technology Network. It uses a *Balanced Scorecard* approach to the assessment of district

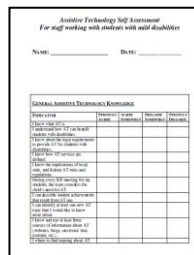
assistive technology services.



Administrators' Self-assessment.

A self-assessment tool developed by the authors and included in *A School Administrators' Desktop Guide to Assistive Technology*. The format

addresses leadership, management, supervision and program improvement.

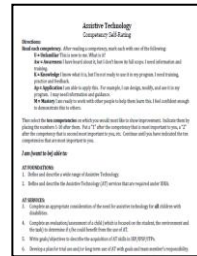


Assistive Technology Self-Assessment.

A short self-assessment tool that can be used to determine the experience and overall knowledge of staff members when planning for

professional development and training activities.

For Use in District Planning



AT Competency Self-Rating (Reed, 2012). An updated, comprehensive list of competencies for individuals with broad AT responsibilities. Can be used to prioritize areas for growth.

The image shows a table titled "Education Tech Points Profile of AT Services in Schools". The table has multiple columns and rows, detailing various tech points and their associated services.

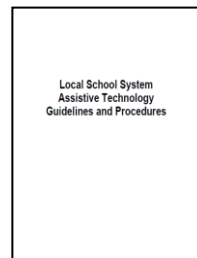
Education Tech Points Profile of AT Services in Schools (2012). A tool that can be used to assess strengths and weaknesses in providing

AT devices and services. It is designed to collect information about each point in the Education Tech Points framework.

The image shows a section of a survey titled "1. Default Section". It contains two questions with radio button options for responses.

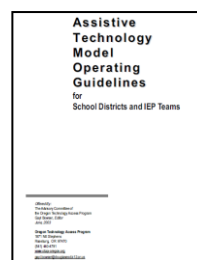
Electronic AT Survey Sample. An example of an electronic survey used to identify existing assistive technology in an educational program

and the knowledge and skills of staff members.



Georgia Model Operating Guidelines (GPAT). The manual contains operating guidelines that address all components of the AT service delivery process. It also contains procedures that IEP teams may use when

providing assistive technology services.



Oregon Model Operating Guidelines (OTAP). The *Assistive Technology: Model Operating Guidelines for School Districts and IEP Teams* can be used as a starting point for the development of operating

guidelines that are tailored to local resources and service designs.