SLIDE 1	The Texas Assistive Technology Network (TATN) gratefully acknowledges the contributions of Deb Case, Ed.D. who provided the references and supporting documentation for this module.
Assistive Technology Evaluations: A Team Perspective Revised March, 2013	This document outlines the supporting research and literature for the evaluation process used in the TATN evaluation module and is provided as a resource to the presenters for background information. The information may be integrated into training of the module as the presenter determines to be appropriate. According to the U.S. Department of Education (2000), "the successful use of any educational tool or strategy begins with an effective assessment of the student's individual needs" (p. iv -1). **SKIP TO SLIDE 6**
SLIDE 6 "**What is an AT evaluation?**"	**What is an AT evaluation?** Evaluation although a discrete event in the service delivery process, is an ongoing series of deliberate activities over time from initial intake through the use of AT (Bain, Dooley, & Leger, 1997; Cook & Hussey, 2002; U.S. Department of Education, 2000). Reed (2002) suggests consideration and evaluation can be differentiated by duration, complexity, and the need for new information.

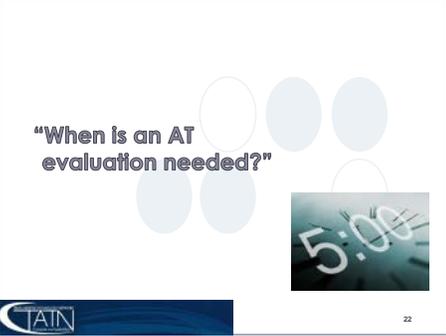| SLIDE 7	**AT Evaluation**
An AT Evaluation… ◦ Builds upon existing information from a variety of sources ◦ Determines how the student currently performs ◦ Determines the nature of barriers TATN — 7	Critical information for AT decision-making can be gathered from existing student records to include evaluation results, therapy reports, teacher notes, etc. (Case, 2003). The purpose of AT intervention is to enable the student to perform functional activities (Cook & Hussey, 2002; IDEA, 1997). The focus of AT services must be on the functional goals the student wants to accomplish (Bryen & Goldman, 2002; Herman, 1998; Lee, 1999). Evaluation is driven by user needs (Bain, Dooley, & Leger, 1997; Scherer, 2002a). Functional skills and abilities evaluation is incorporated into the AT service/evaluation process by Bain, 1997; Behnke and Marotta, 1998; Bowser and Reed, 1998; Cook and Hussey, 2002; Herman, 1998; Hutinger, Johanson, Robinson, and Schneider, 1995; Lahm, Bell, and Blackhurst, 2002; and, Sprigle and Abdelhamied, 1998.
SLIDE 8	**An AT Evaluation Team**

An AT Evaluation Team…
◦ Gathers and analyzes information
◦ Uses evaluation data to make recommendations regarding:
  ◦ The nature and extent of AT devices and services required
  ◦ How to support achievement of expected outcomes
 	
TATN — 8
	Lahm, Bell, and Blackhurst, 2002; and Behnke and Marotta, 1998 specifically address the identification of team members in the AT service/evaluation process.
	
	The primary members of the evaluation team typically include a unique combination of individuals who are directly involved with the student or are necessary based on the goals, objectives, and needs of the student being evaluated. Anyone with the capacity to contribute to the decision-making or implementation process can be a potential member of the AT team (Reed, 2000).
	
	See also *Who is Involved in AT Evaluation*.

SLIDE 9 **Results of an AT Evaluation** **Provide the ARD committee (IEP team) with the information needed to make informed decisions about…** ◦Need for AT devices and services ◦Nature and extent of AT devices and services, if any, required to participate in and benefit from FAPE TAIN 9	**Results of an AT Evaluation** AT evaluation is conducted to: a. Enable IEP teams to make informed decisions b. Identify and provide the IEP teams with functional recommendations for integrating individualized AT solutions into the educational environment c. Aid the student in accessing the curriculum alongside peers who do not have special needs (Lahm & Nickels, 1999) Answer which tools and strategies (devices and/or services) can be used to improve the independent functioning of the student during specific activities (TechACCESS of Rhode Island, 1996) **SKIP TO SLIDE 22**
SLIDE 22 "When is an AT evaluation needed?" 5:00 TAIN 22	**When is an AT evaluation needed?**
SLIDE 23 An AT Evaluation is needed when… ◦The ARD Committee needs more information to make a decision about AT TAIN 23	Typically, AT evaluations are initiated during consideration of the student's possible need for AT during the annual development of the IEP, as required by IDEA. If discussion leads the team to believe that a student needs AT to accomplish stated goals, but the team does not have enough knowledge or expertise to make specific device and service decisions, an evaluation should ensue (Case, 2003).
SLIDE 24 An AT Evaluation is needed when… ◦A team composed on IEP team members determines that a reevaluation is necessary TAIN 24	Continued from above.

SLIDE 25	**Referral**
Referral for an AT Evaluation • Is important to the development of appropriate evaluation • Includes information gathered during consideration about student, environments, expectations, and tasks • Informs the ARD committee and the evaluation team TAIN 25	Intake and referral is incorporated into the AT service/evaluation processes of Behnke and Marotta (1998); Bowser and Reed (1998); Cook and Hussey (2002); Herman (1998); Hutinger, Johanson, Robinson, and Schneider (1995); and Lahm, Bell, and Blackhurst (2002). **What should be included in a referral?** In a research study conducted by Case (2003), the following elements were validated as essential to the referral for an AT evaluation: a. The referral date b. IFSP/IEP goals and/or desired outcomes c. The reason for the referral/specific reasons for the evaluation d. What specifically the student needs to be able to do that is difficult or impossible at this time and at the expected level of independence e. The major areas of concern that need to be addressed.
SLIDE 26	**How is an AT evaluation conducted?**
"How is an AT evaluation conducted?" TAIN 26	The field of assistive technology (AT), due to increased visibility, legislation, and need, requires common standards to drive quality service delivery (Case, 2003). Implementation of quality AT evaluation is problematic for the following reasons: a. A lack of access to current and thorough information b. Insufficient training in conducting AT evaluations c. A lack of understanding of the student's usual and customary environment d. A gap in the identification of the types of supports needed for the student and the technology e. The use of one-time procedures as opposed to ongoing processes with consistent follow-up to ensure meeting functional needs are met and appropriate supports are received f. The high cost of evaluation (U.S. Department of Education, 2000) g. Those who know the student best are not conducting the evaluation h. The required involvement of several students (Bowser & Reed, 1998) i. Current AT evaluation practices lack standardized or systematic procedures (Petty, 2002) j. The existence of multiple definitions of AT service delivery processes (Sprigle & Abdelhamied, 1998) and diverse terminology (Case, 2003) k. Inconsistencies exist in the delivery of AT by geographic regions and service delivery models (Sprigle & Abdelhamied, 1998) l. The ambiguity of federal legislation and the lack of standardization in the field (Case, 2003).

SLIDE 27
 	
Quality Indicators for Assistive Technology Services (QIAT)
 	
⊙www.qiat.org
 	
QIAT Quality Indicators for Assistive Technology Services
 	
27
	Quality Indicators in Assistive Technology
	The QIAT Consortium Leadership Team (2000) reports a quality evaluation would include the following:
	   a. Assistive Technology assessment **procedures** are clearly defined and consistently used.
	   b. AT assessments are conducted by a **multidisciplinary team** that actively involves the student and family or caregivers.
	   c. Assistive technology assessments are conducted in the student's **customary environments.**
	   d. Assistive technology assessments, including needed trials, are completed within **reasonable time lines**.
	   e. Recommendations about AT are **based on data** about the student, environment, and tasks.
	   f. The assessment provides the IEP team with **documented recommendations** about AT devices and services.
	   g. AT needs are **reassessed** by request or as needed based on changes in the student, environments and/or tasks.

SLIDE 28 Quality Indicator *Assistive technology assessment procedures are clearly defined and consistently used.* 28	**Clearly defined procedures** The first of seven quality indicators for AT evaluation established by The QIAT Consortium Leadership Team (2000) specifies that clearly defined evaluation procedures be used with consistency. **SKIP TO SLIDE 30**
SLIDE 30 "Who is involved in an AT evaluation?" 30	**Who is involved in an AT evaluation?** Multidisciplinary is the terminology used in IDEA 1997 to reflect the involvement of two or more disciplines or professions in the provision of integrated and coordinated services, including evaluation and evaluation activities (Sec. 303.322) and development of the IFSP (Sec. 303.342).

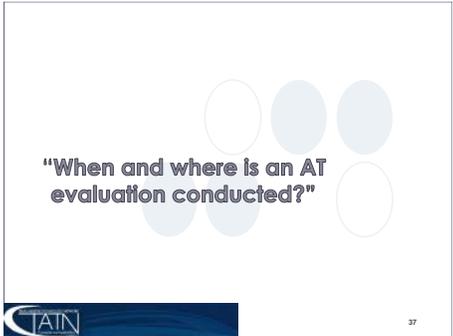| SLIDE 31	**Multidisciplinary Teams:**
Quality Indicator *AT assessments are conducted by a <u>multidisciplinary team</u> that actively involves the student and family or caregivers.* TAIN 31	A multidisciplinary team of individuals that includes the student, family, and caregivers perform the AT evaluation (The QIAT Consortium Leadership Team, 2000). Evaluation by a multidisciplinary team presents opportunities to (a) use the knowledge and skills of experts in other disciplines, (b) create a more comprehensive view of the consumer, (c) share decision-making responsibilities creating greater buy-in on selections, (d) provide increased solutions, (e) share goals, (f) enhance the effectiveness of interventions, (g) reduce abandonment, (h) eliminate duplication and (g) create established lines of communication (Herman, 1998).
SLIDE 32	**Student:**
The AT Evaluation Team Is based on a student-centered process that includes… ○ Student ○ Parents ○ Professionals TAIN 32	The user is the central focus of the evaluation (Herman, 1998). Consumer choice and preference is critical to the success of solution selection (Bryen & Goldman, 2002). **Family:** A team approach is applied for determining the most appropriate AT. The families are the key members of the AT team (Lee, 1999). Even though the law mandates parent participation in the IEP (IDEA Regulations 34 C.F.R.§300.345), family involvement in team decision-making is often limited (Hourcade, Parette, & Huer, 1997). Further, families of minority children tend to be less involved in AT decision-making processes (Parette, 1998). Parette (1995) in a survey of state practices found that many states involve families in more active roles during program plan development than during AT evaluation processes. Parette (1998) addresses the influences of the student, acculturation, ethnicity, culture, the service system, and technology on family-centered decision-making. The nature and extent of family participation in AT decision-making will depend on the family's values (Hourcade, Parette, & Huer, 1997). Hourcade et al. (1997) identify six family issues critical to AT decision-making: 1. Failure to involve the family in AT decision-making can result in device abandonment. 2. Informal information gathering strategies require a high level of sensitivity to families. 3. Families need information and how the information is provided is as important as the information provided. 4. The introduction of any new technology is likely to have unanticipated effects on both the student and the family.

	5. A device can make a family more noticeable when some families prefer to blend in. 6. Professionals and families may have very different perceptions and values.
SLIDE 33 The AT Evaluation Team Includes those with knowledge about… ⊙ Student, environments and tasks ⊙ Areas related to identified needs ⊙ AT ⟨ATN	**Professionals:** The Wisconsin Assistive Technology Initiative (WATI) (2000) identifies five characteristics of an AT team that are critical for appropriate decision-making. Members of the AT team must include persons knowledgeable about (a) the student, (b) the area of the curriculum, (c) the student's language abilities and (d) the student's motor abilities as well as (e) an individual who can commit monetary, personnel, and physical resources. Mann and Beaver (1995) indicate Occupational Therapists (OT) were often positioned in the role of AT team leader due to their historical involvement in AT and breadth of knowledge in critical evaluation components to include persons (psychological, physiological, and sociological factors), environments, tasks and devices. Even though individual team members bring knowledge and skills, professionals typically do not receive adequate preparation for interdisciplinary collaboration through traditional preparation programs (Fostering a common vision, 1999).
SLIDE 34 The AT Evaluation Team ⊙Multiple perspectives and gifts ⊙Common interest in student progress ⟨ATN	**The Evaluation Team** Members of the IEP team may or may not be on the AT evaluation team; however, all members can contribute valuable information for decision-making (Case, 2003). Although differing perspectives of the professional and user are both addressed in evaluation (Scherer, 2002a). **SKIP TO SLIDE 37**

SLIDE 37	**When and where is an AT evaluation conducted?**
"When and where is an AT evaluation conducted?"	Church and Glennen (1992) suggest that cross training supports AT across school, work, and community environments.
	Rather than being driven by technological devices, Blackhurst (1997) advocates for focusing on the needs of children and the problems children have in functioning within specific environments and contexts.
	Trial implementation is performed in actual environments (Scherer, 2002a).
	Planning for the assessment is supported by Bowser and Reed, 1998; Herman, 1998; Hutinger, Johanson, Robinson, and Schneider, 1995; Lahm, Bell, and Blackhurst, 2002 in the AT service/evaluation process.

SLIDE 38	**Reasonable timelines**
Quality Indicator *Assistive technology assessments, including needed trials, are completed within <u>reasonable timelines</u>.*	Evaluations and trials are to be completed within reasonable timelines (The QIAT Consortium Leadership Team, 2000).

SLIDE 39	**Conducted in customary environments**
Quality Indicator *Assistive technology assessments are conducted in the student's <u>customary environments</u>.*	Performance is measured in the student's customary environments (The QIAT Consortium Leadership Team, 2000).
	Over the past several years, the movement has been toward team-based AT evaluation in the natural or customary environment (Case, 2003).
	In a research study, Case (2003) found the validated essential elements of AT evaluation specific to environments to include:
	a. The current placement/grade: time in regular education (location, time, hours per week); grade level; support of teacher/paraprofessional.
	b. Environments in which evaluation goals and tasks are to be performed by the student to include home, educational, community, vocational and leisure.
	c. Considerations of both physical environment and cultural environment in which student is to perform identified task(s) in both the educational environment/school and work.
	d. The technology in the environment.

SLIDE 40 MOVING ON The Evaluation Process 40	**The evaluation process** Evaluations can be conducted using formal or informal techniques or through a combination of the two. In an informal AT evaluation no specific model, tool, or other written directive is used for conducting the evaluation. Formal evaluation typically involves the use of tools and/or protocols developed by professionals in the field, including self-authored tools. Formal protocols include those published in print or electronic format (Case, 2003). Herman (1998) suggests that specific evaluations that target areas of concern may be conducted when students present complex needs. In such situations, an *expert* in that discipline conducts the evaluation through direct or indirect interactions with individuals who interact with the student on a continual basis. Discipline specific evaluations can address physical abilities, functional skills, alternative computer access (Herman, 1998), environmental access (Bain, 1997; Herman, 1998), positioning, augmentative and alternative communication (Bain, 1997), and vocational skills and abilities (Case, 2003). **SKIP TO SLIDE 44**
SLIDE 44 DATE Identify and Define Areas of Concern ◦Convene the evaluation team and interested others ◦Review referral information and current data ◦Determine the main question that the evaluation seeks to answer ◦Seek clarification and additional input 44	**Identify and Define Areas of Concern** Bain, 1997; Behnke and Marotta, 1998; Bowser and Reed, 1998; Cook and Hussey, 2002; Herman, 1998; Hutinger, Johanson, Robinson, and Schneider, 1995; Lahm, Bell, and Blackhurst, 2002; NDIPAT, 1998; and, Sprigle and Abdelhamied, 1998 incorporate the identification of functional needs including tasks into the AT evaluation.
SLIDE 45 DATE Identify and Define Areas of Concern ◦Refine the main question, if necessary ◦Determine what the team knows and still needs to know ◦Determine when and how to seek additional information 45	Behnke and Marotta, 1998; and Herman, 1998 include the identification of desired outcomes into the AT service/evaluation process. **SKIP TO SLIDE 50**

SLIDE 50 D-A-T-E Gather Information ◦Standardized tests ◦Record review ◦Related service, speech etc. evaluations ◦Environmental inventories TAIN 50	**Gather Information** Information gathering is included in AT service/evaluation processes by Bowser and Reed, 1998; Cook and Hussey, 2002; Herman, 1998; Hutinger, Johanson, Robinson, and Schneider, 1995; Lahm, Bell, and Blackhurst, 2002; and, NDIPAT, 1998. Bain (1997) specifies the identification of all present and future environments as part of AT evaluation. Screening data can offer insights into the student's needs, which can guide teams in considering AT and determining AT action steps (Case, 2003). Cook and Hussey (2002) and Petty (2002) suggest that a large amount of information can and should be gathered during evaluation without the introduction of specific devices, focusing on function rather than device. During the evaluation phase information relative to the student's needs, the student, and the student's potential use of AT is collected and used to determine the necessary features of devices and services. This information is both pre-existing and newly gathered (Case, 2003).
SLIDE 51 D-A-T-E Gather Information ◦Discussions ◦Interviews ◦Observations ◦Videotapes ◦Hands-on activities TAIN 51	In a research study by Case (2003) the essential information to gather as part of an AT evaluation includes: a. The student's name b. The student's birth date/chronological age c. Current services received by the student d. The primary language used in the student's home environment e. Documented sensory impairments f. The parents' or guardian/caregivers' names g. The parent/guardian/caregiver contact information h. The primary and secondary language(s) spoken in the student's home i. The student's school/district j. Information for the primary school contact and current key educators and direct service providers k. Sensory precautions and/or considerations related to student sensitivity and stimulation l. The student's vision including areas of concern and adaptive/alternative input and output m. The student's hearing/auditory abilities including adaptive/alternative input and output n. Receptive language skills and abilities related to the task and

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functioning of the student

o. Expressive language skills and abilities related to the task and functioning of the student

p. The student's expressive communication method(s)/mode(s)

q. The student's augmentative communication system(s)

r. The student's communication concerns

s. The student's cognitive skills and abilities

t. The student's cognitive areas of concern

u. The student's fine motor skills

v. The student's gross motor skills – mobility

w. The student's gross motor skills - postural stability

x. The student's motor ability and movement areas of concerns

y. The student's psychological, social, or emotional areas of concern

z. Technology (no- to high-tech) used in the past and no longer in use by the student

aa. Technology (no- to high-tech) currently/frequently used by the student

bb. The impact of technology (no- to high-tech) currently/frequently used on the student

cc. Strategies used with the student

dd. The student's preferences regarding the type(s) of AT to use

ee. Comparison of the student's use of technology (no- to high-tech)

ff. Comparison of the impact of technology (no- to high-tech) on the student

gg. Comparison of characteristics/features of technology (no- to high-tech) for the student

hh. The student's needs to access other technologies by a switch

ii. Clearly defined responsibilities

jj. Timelines

kk. Training

ll. Dates of evaluation activities

mm. The evaluation team (consultant/evaluator)

</td></tr>
</table>

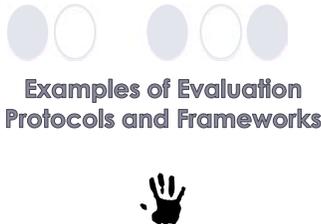| SLIDE 52	**Examples of Evaluation Protocols and Frameworks**
Examples of Evaluation Protocols and Frameworks 52	The number of discipline specific evaluation protocols continues to grow, whereas the number of comprehensive AT evaluation tools remains limited (Case, 2003). Limited views of the student being evaluated can result in the recommendation of inappropriate technologies (Galvin & Scherer, 1996). Bain (1997) classifies the *MPT* and *LAP* as the only two general evaluations, suggesting the use of separate evaluations for more specific purposes. The Bain AT System (BATS) is considered a holistic and synergistic system

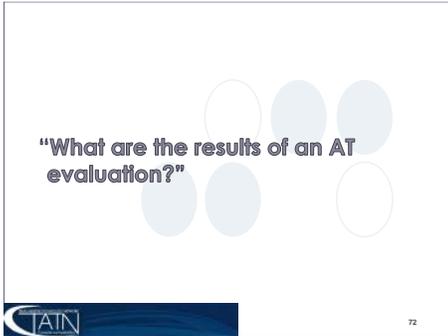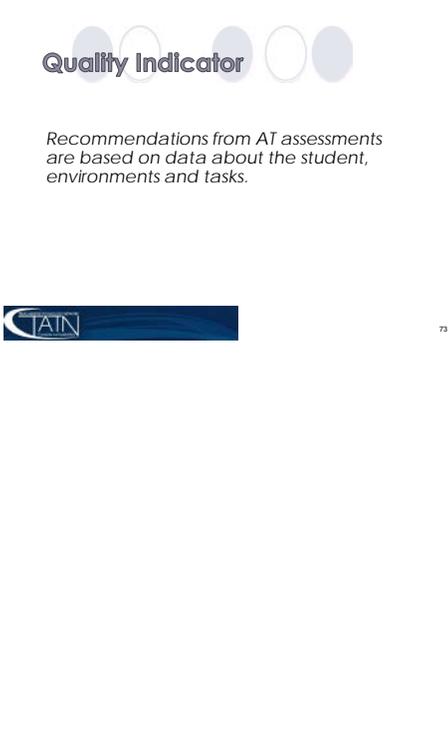|	
	of AT service delivery (Bain, 1997). The Unified Functional Model (UFM) (Melichar & Blackhurst, 1993) finds the focal point of AT service delivery to be the student. Monitoring and evaluation are ongoing activities throughout the model (Blackhurst & Lahm, 2000) for determining if needs are currently and continue to be met. More information on the UFM can be obtained at http://edsrc.coe.uky.edu/www/ukatii/.
SLIDE 53 **Examples of Evaluation Protocols and Frameworks** 52	**The SETT Framework** The SETT (Student, Environment, Tasks, and Tools) Framework (Zabala, 1995) guides professionals in the collection of broad categories of information for determining AT devices and services. SETT emphasizes the need to gather information about the student, environment, and tasks, before the tools (AT devices and services) can be determined. Zabala (1995) identifies 17 questions to ask in developing a picture of the whole child in relation to the framework of the student, environments, tasks, and tools. More information on SETT can be obtained at http://www.joyzabala.com/. The Matching Persons and Technology (MPT) model embraces three of the four SETT components, the student, the milieu (environment), and the technology. Tasks are not a major component of the MPT model. The key factor in the MPT model is the person, to include his or her character and perspectives (Scherer, 1998). More information on the MPT model can be found at http://members.aol.com/impt97/mpt.html. Cook and Hussey (2002) describe an AT system that incorporates the device, human operator or user, and the environment in which the functional activity will be performed. The Human Activity Assistive Technology (HAAT) model is founded in Bailey's model for human performance (Cook & Hussey, 2002). The components of the HAAT model are the context, human, activity, and AT. The activity is the fundamental element of HAAT, whereas, SETT places the greatest level of importance on the student. In the HAAT model the task is what needs to be accomplished to perform the activity, the skill is the ability to do the task, and physical ability is the capacity to perform the skill. Cook and Hussey (2002) describe the context of use to include physical environment or conditions, psychosocial and cultural, lifestyle, setting, or service delivery model. **SKP TO SLIDE 57**

SLIDE 57	**Analyze Information**
DATE Analyze Information ◦ Clearly identify expected achievement ◦ Determine barriers to achievement ◦ Identify strengths that can be built upon TAIN 57	Individuals who approach decision-making from a functional perspective are concerned with achieving the desired goals or what the student wants to accomplish, matching the technology to the task or demand (Lahm & Sizemore, 2002). According to Blackhurst (1997), the challenge is the configuration of the best possible combination of devices and services to provide support, adjustment, and/or compensation for functional needs or deficits. The identification of generic device and service features and matching features to student goals and tasks is incorporated into AT service/evaluation processes by Cook and Hussey, 2002; Herman, 1998; Hutinger, Johanson, Robinson, and Schneider, 1995; NDIPAT, 1998; and, Sprigle and Abdelhamied, 1998.
SLIDE 58	Continued from above.
DATE Analyze Information ◦ List specific characteristics of devices that might assist the student in doing expected tasks as independently as possible TAIN 58	**SKIP TO SLIDE 62**
SLIDE 62	**Generate and Prioritize Solutions**
DATE Generate and Prioritize Solutions ◦ Generate a list of possible solutions ◦ Prioritize those that best match the list of characteristics ◦ Determine least complex solutions that will lower the barriers to achievement ◦ Decide what should be tried first TAIN 62	Bowser and Reed, 1998; Cook and Hussey, 2002; Herman, 1998; and, NDIPAT, 1998 include the generation of solutions into the AT service/evaluation process. The selection of a solution is incorporated into the service/evaluation process by Bain, 1997; Bowser and Reed, 1998; Cook and Hussey, 2002; Herman, 1998; Lahm, Bell, and Blackhurst, 2002; and, Sprigle and Abdelhamied, 1998. A range of low- and high-tech should be considered for the student (Blackhurst, 1997; Scherer, 2002a). Blackhurst (1997) encourages beginning with no-tech and low-tech solutions and moving up the continuum when making individualized decisions about technology. The diversity of technology along the continuum allows for the selection of tools to meet the varied needs and characteristics of the students who will benefit from their use (Parette, Hourcade, & VanBiervliet, 1993). Selection should come from a hierarchy of preferred options from revising the task to custom design or fabrication of the device. However,

	the simplest, yet effective intervention should be offered as the solution (Herman, 1998). **SKIP TO SLIDE 65**
SLIDE 65 Develop the Trial Action Plan DATE ◦Identify times, places, and duration of the trial ◦Select a functional, frequently occurring activity from identified tasks ◦Specify when and how the student will use the device(s) in the activity ◦Specify cues and other supports ◦Specify any training needed TAIN 65	**Develop the Trial Action Plan** In a research study by Case (2003) an action plan was validated as an essential element of an AT evaluation.
SLIDE 66 Develop the Trial Action Plan DATE ◦Detail current achievement on this activity and expected change during the trial ◦Develop criteria that will indicate success or lack thereof ◦Decide what information will be collected to indicate level of change ◦Assign responsibilities appropriately TAIN 66	Bowser and Reed, 1998; Herman, 1998; Hutinger, Johanson, Robinson, and Schneider, 1995; Lahm, Bell, and Blackhurst, 2002; and, NDIPAT, 1998 incorporate planning for implementation, training, and follow-up or follow-along into the AT service/evaluation process. **SKIP TO SLIDE 69**
SLIDE 69 Conduct Trials and Collect Data DATE ◦Conduct trials according to the Trial Action Plan ◦Collect data on change as specified in the plan ◦Collect data that will indicate WHY expected changes are occurring or not ◦Analyze data at intervals throughout the trial TAIN 69	**Conduct Trials and Collect Data** Trial use of AT is incorporated by Bain, 1997; Behnke and Marotta, 1998; Bowser and Reed, 1998; Cook and Hussey, 2002; Herman, 1998; Lahm, Bell, and Blackhurst, 2002; and, NDIPAT, 1998 in the AT service/evaluation process. In a research study by Case (2003) trial (in the natural/customary environments) was validated as an essential element of AT evaluation. The user should request a trial use of the device before purchasing (Lee, 1999). Trial implementation is performed in actual environments (Scherer, 2002a). **SKIP TO SLIDE 72**

SLIDE 72	**What are the results of an AT evaluation?**
"What are the results of an AT evaluation?"	The outcome of an AT evaluation is written documentation of AT device and service recommendations. The inclusion of information to support the recommendations is strongly encouraged.

SLIDE 73	**Recommendations**
Quality Indicator *Recommendations from AT assessments are based on data about the student, environments and tasks.*	Bowser and Reed (1998) include recommendations as part of the AT service/evaluation process. Recommendations for AT devices and/or services are based on student data, environment(s), and educational tasks (The QIAT Consortium Leadership Team, 2000). In a research study, Case (2003) validated the essential elements of AT evaluation to include a summary of the evaluation - activities, devices, student response. "The outcome of an effective and comprehensive technology assessment process is to generate a unique set of recommendations that ensures appropriate delivery of AT to young children with disabilities without adversely affecting family functioning" (Judge & Parette, 1998 p. 204). A unique set of recommendations based on family priorities for AT is the culminating product of an effective evaluation (Parette, VanBiervliet, & Hourcade, 2000).
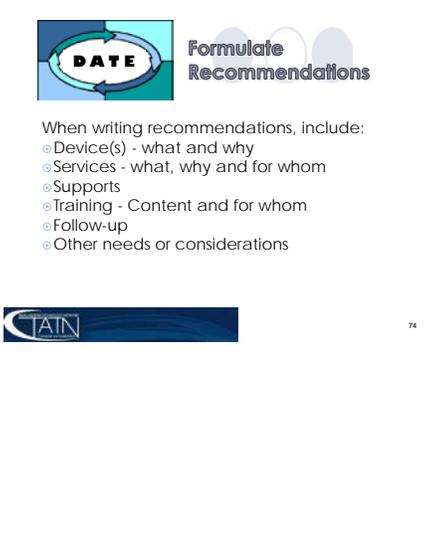
SLIDE 74	**Formulate Recommendations**
DATE Formulate Recommendations When writing recommendations, include: ○ Device(s) - what and why ○ Services - what, why and for whom ○ Supports ○ Training - Content and for whom ○ Follow-up ○ Other needs or considerations	Case (2003) validated the following elements as essential to AT evaluation recommendations: a. Recommendations are made for each identified task (after trial) and include implications of findings, concerns; devices & services; characteristics of devices; abilities & skills; summary of behaviors without value judgments; no tech, low tech, & high tech options with identified characteristics. b. Recommendations are based on specified goals & objectives. c. Features of technology (no- to high-tech) options within recommendations are based on the student's needs in the identified environments in performing the identified tasks. d. Recommendations about tools & strategies are based on and justified with information about the student, environment, and the tasks.

	Recommendations are based on what the student did and did not do in the evaluation (Petty, 2002).
SLIDE 75 **D·A·T·E Formulate Recommendations** ○Support recommendations with data ○Provide more than one option and the strengths and limitations of each ○Include ideas about educational use related to areas of concern TATN 75	**Features of an Evaluation Report** In a research study, Case (2003) validated 31 essential elements of AT evaluation reports: 1. The student's name 2. The student's birth date/chronological age 3. Documented sensory impairments 4. The student's school/district 5. The student's IFSP/IEP goals and/or desired outcomes 6. The reason for referral 7. Tasks: what specifically the student needs to be able to do that is difficult or impossible to do at this time and at the expected level of independence? What are the major areas of concern, which need to be addressed for the student? 8. Sensory precautions and/or considerations related to student sensitivity and stimulation 9. The student's vision including areas of concern and adaptive/alternative input and output 10. The student's expressive communication method(s)/mode(s) 11. The student's communication concerns 12. The student's cognitive skills and abilities 13. The student's cognitive areas of concern 14. The student's gross motor skills – mobility 15. The student's gross motor skills – postural stability 16. The student's motor ability and movement areas of concerns 17. Technology (no- to high-tech) used in the past and no longer in use by the student 18. Technology (no- to high-tech) currently/frequently used by the student 19. The environments in which evaluation goals and tasks are to be performed by the student to include the home, educational, community, vocational, and leisure environments 20. The educational environment/school: considerations of both physical environment and cultural environment in which student is to perform identified task(s) 21. The tools necessary to perform the identified tasks (technology use: no- to high-tech) 22. The student's preferences regarding the type(s) of AT to use 23. Comparison of the student's use of technology (no- to high-tech) 24. Comparison of characteristics/features of technology (no- to high-tech) for the student 25. Recommendations for each identified task (after trial) 26. Features of technology (no- to high-tech) options based on the student's needs in the identified environments in performing the

SKIP TO SLIDE 78	identified tasks 27. Recommendations about tools and strategies are based on and justified with information about the student, environment, and the tasks 28. An action plan 29. Training 30. The report date 31. The dates of evaluation activities
SLIDE 78 	**What happens next?** Evaluation should conclude with written recommendations (Lee, 1999). According to the *UKAT Toolkit* (Lahm, Bell, & Blackhurst, 2002) a comprehensive evaluation report is written and provided to the IFSP or IEP team upon completion of the initial evaluation. Report writing is included as part of the AT service/evaluation process by Bain, 1997; Cook and Hussey, 2002; Herman, 1998; Hutinger, Johanson, Robinson, and Schneider, 1995; and, Lahm, Bell, and Blackhurst, 2002. The written report, regardless of how it is generated, is the culminating documentation of the AT evaluation and "the report is meant to be used" (Hutinger, Johanson, Robinson, & Schneider, 1995, p. 35). In order for the report to be used effectively, Hutinger, Johanson, Robinson, and Schneider (1995) include the identification of where to send the report, the number of copies needed, who receives the report, and the next steps as critical to report development. In order for the report to be used, it needs to be well written (Case, 2003) and include specific information about the student, environments, tasks, and potential tools (Zabala, 1995). The report serves to provide a written summary of evaluation activities and observations, as well as, recommendations for trial implementation. It provides foundational information to IEP team members, anchoring their understanding of the student's capabilities and needs. The report can serve to document a baseline for performance measures. Upon completion of trial implementation, the documentation of AT device and service recommendations not only justify, but support actions and funding requisitions. Written recommendations can serve to guide implementation planning to include acquisition, training, management, and monitoring (Case, 2003).

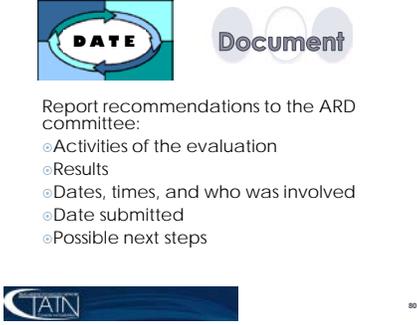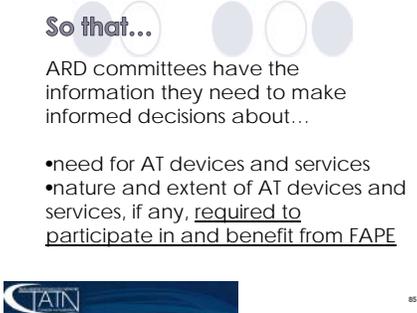|	
SLIDE 79 Quality Indicator *The assessment provides the IEP team with <u>documented recommendations</u> about AT devices and services.* TAIN 79	**Document recommendations** Clearly documented AT device and service recommendations are provided for the IEP team (The QIAT Consortium Leadership Team, 2000).
SLIDE 80 DATE Document Report recommendations to the ARD committee: ◦Activities of the evaluation ◦Results ◦Dates, times, and who was involved ◦Date submitted ◦Possible next steps TAIN 80	**What should be included in the evaluation report?** In a research study, Case (2003) validated the essential elements of AT evaluation to include: a. A summary of the evaluation - activities, devices, student response, b. The names & titles of individual(s) compiling report, and, c. The report date (Case, 2003). (See also *Features of an Evaluation Report.*) **Document** Cook and Hussey (2002) advise that the needs of the student and the goals of the evaluation are defined first. The student's skills as they apply to device use are then summarized with a description of generic device characteristics. These authors suggest that specific recommendations for equipment include descriptions, part numbers, manufacturers' names, modifications, and costs, including soft costs such as training before and after the device has been purchased. They also recommend incorporating integration strategies, an implementation plan, funding sources, and roles and responsibilities. Cook and Hussey conclude that the report should be absent of medical and technical jargon. Hutinger, Johanson, Robinson, and Schneider (1995) offer several pages of instruction for the completion of the evaluation report. The *TTAP* report contains 14 specific features to include: the student's name, address, and age, the date and location of the evaluation, staff participants and positions, the reasons for the referral and goals of the evaluation, the equipment and software used during the evaluation to include equipment set-up and student position, observations from the team, the summary and recommendations, further support, and the signatures of team members compiling the report. The *TTAP* process and recommendations were reported as appropriate for use with young children with multiple disabilities and leading to positive outcomes for

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<td>children and families (Hutinger, 1998). TTAP follow-up indicated that recommendations were typically implemented when resources were available. Written TTAP assessment reports were reported as helpful to families and were used in: (a) further evaluation, (b) determining the student's current level of functioning and (c) obtaining funding support (Hutinger, 1993).</td>
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SLIDE 81

DATE   Document

Report recommendations to the ARD committee:
○Activities of the evaluation
○Results
○Dates, times, and who was involved
○Date submitted
○Possible next steps

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Evaluation is an ongoing process in AT service delivery. Ongoing evaluation involves continual data collection, which allows for the monitoring of the student's level of functioning and the use of the technology to determine its effectiveness. Monitoring promotes early identification of changes in the student or the technology that may result in the adaptation, modification, repair, or replacement of the device or service, or the recommendation of other technologies not currently in use by the student (Case, 2003).

Reevaluation of AT needs is made upon request or due to changes in the student, environment or tasks (The QIAT Consortium Leadership Team, 2000).
Evaluation of effectiveness is included in the AT service/evaluation process by Bain, 1997; Behnke and Marotta, 1998; Bowser and Reed, 1998; Cook and Hussey, 2002; Herman, 1998; Hutinger, Johanson, Robinson, and Schneider, 1995; Lahm, Bell, and Blackhurst, 2002; and, Sprigle and Abdelhamied, 1998.

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SLIDE 85

So that…

ARD committees have the information they need to make informed decisions about…

•need for AT devices and services
•nature and extent of AT devices and services, if any, <u>required to participate in and benefit from FAPE</u>

TAIN   85
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Petty (2002) indicates the key to reporting as providing an objective and chronological record of the evaluation, supported by examples of data and a summary of findings. Recommendations are based on what the student did and did not do. The goal of the report is to ensure consensus, understanding, and action (Petty, 2002).
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