

Assistive Technology Implementation: The Basics

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Presentation based on the

- ◉ “Assistive Technology Implementation: Working Together to Make a Measurable Difference” by the Texas Assistive Technology Network, led by Region 4 ESC (rev 2013) www.texasat.net
- ◉ “Quality Indicators for Assistive Technology Implementation” - Quality Indicators for Assistive Technology (QIAT) www.qiat.org

A Professional Development Module in the *Assistive Technology* in Texas Schools Series

Collaboratively developed by:

- ◉ Texas AT Network, led by Region 4 ESC
- ◉ Texas Education Agency

Available at www.texasat.net



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Assistive Technology Implementation: The Basics

Description:

This workshop will address the basics of an Assistive Technology Implementation plan, including purpose, results, planning for implementation, and evaluating the effectiveness of the AT and the IEP.

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Assistive Technology Implementation: The Basics

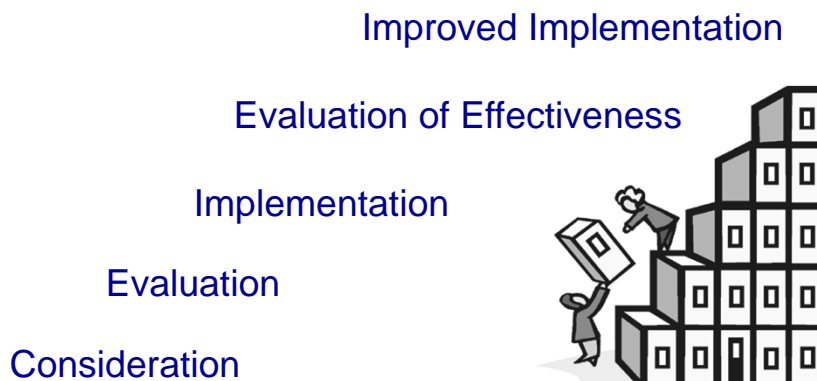
Objectives:

- ◉ Basics of an AT Implementation plan
- ◉ Purpose & Results of implementation
- ◉ Planning for implementation...
 - ◉ QIAT Indicators on Implementation
 - ◉ QIAT Indicators on Evaluation of Effectiveness
- ◉ Expected outcomes
- ◉ AT Competencies

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Major AT Functions in Schools

Each Step Builds on Previous Steps



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Ways to Use Assistive Technology

- ✓ Support achievement of goals
- ✓ Expand educational/vocational options
- ✓ Increase participation in educational settings and activities
- ✓ Increase productivity
- ✓ Increase independence
- ✓ Improve quality of life

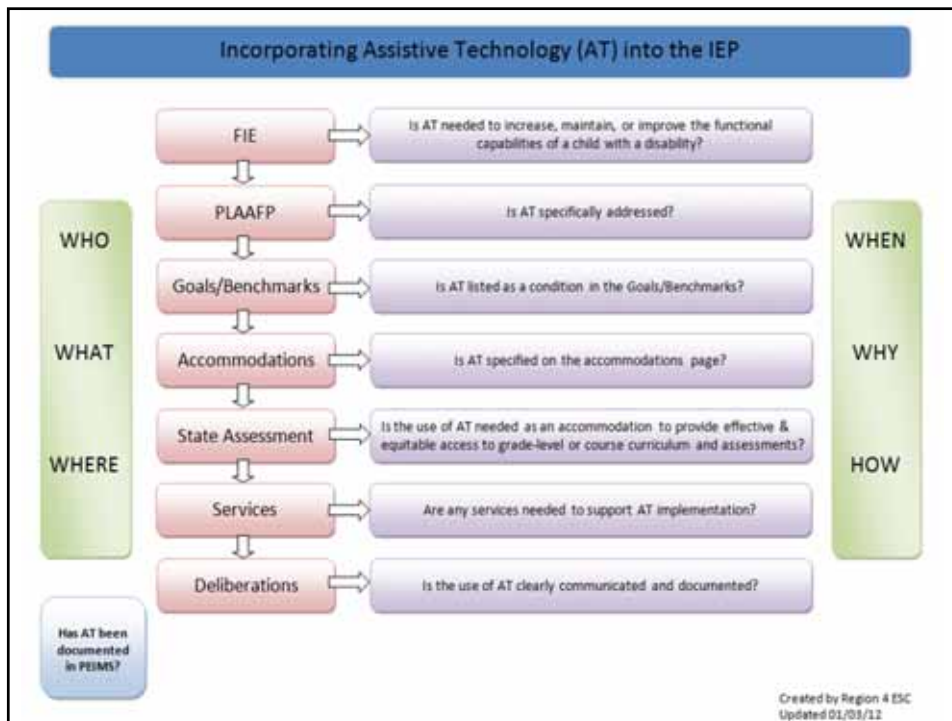


“What are the purpose and expected results of AT Implementation?”

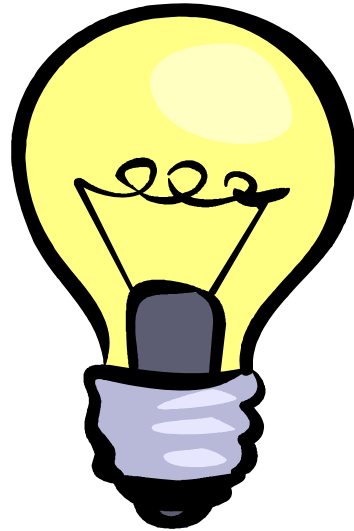
Purpose and Expected Results of AT Implementation

- **Purpose:** For students to use AT to actively participate in curricular and extracurricular activities
- **Results:** Increased academic achievement and functional performance

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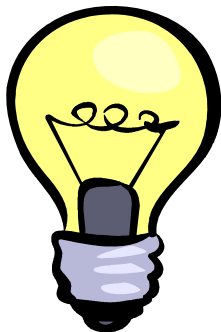


“What are some big ideas we need to keep in mind about AT implementation?”



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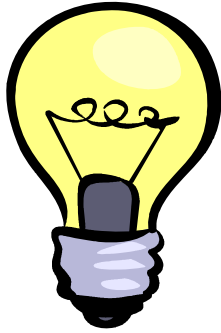
AT Implementation...



involves the use of AT devices, AT services and other strategies that promote student achievement

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AT Implementation...



focuses on
functional areas of
concern when and
where they occur

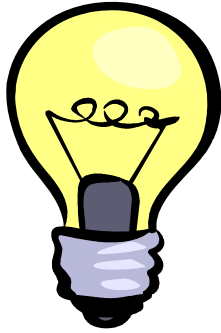
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Functional Areas

- Reading
- Written Expression
- Math
- Problem-solving
- Communication
- Recreation
- Daily organization
- Seating/Positioning
- Hearing
- Seeing
- Self-Care
- Mobility
- Behavior
- Specific task-related skills

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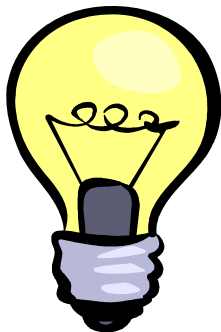
AT Implementation...



is an ongoing process
that involves the IEP
committee and those
who work with the
student

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AT Implementation...



requires a plan
collaboratively
developed by all who
will be involved

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[http:// www.qiat.org](http://www.qiat.org)

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AT Implementation...

- Follows a collaboratively developed plan
- Is based on evaluation data and present levels of performance
- Shares responsibilities
- Occurs across environments and activities

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AT Implementation...

- Encourages multiple means of participation
- Includes training for student, staff, family, and others
- Includes management and maintenance of materials
- Changes based on formative evaluation data

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“How do we develop an effective AT Implementation Plan?”

“Where do we start?”

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Revisiting Information in the SETT Framework to Establish a Baseline

- Student
- Environments
- Tasks
- Tools

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Implementation Sequence of SETT

The Student in typical Environments
uses Tools to accomplish Tasks



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What is Known about the Student?

- What is the functional area of concern?
What does the student need to be able to do that is difficult or impossible to do independently at this time?
- Special needs (related to area of concern)
- Strengths and abilities (related to area of concern)
- Present levels of achievement
- Desires and Expectations (student's)

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What is known about the Supports and Barriers within Environments?

- Arrangement (instructional, physical)
- Support (for both the student and the staff)
- Materials and Equipment (commonly used by others in the environments)
- Access Issues (technological, physical, instructional)
- Attitudes and Expectations (staff, family, other)

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What Tasks have been Difficult or Impossible for the Student?

- The specific things that the student needs to be able to participate in and do to reach expectations and make progress
- The functional things that are a part of being actively involved in learning environments
 - Communication
 - Instruction
 - Participation
 - Productivity
 - Environmental Control

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What Tools have been Identified as Needed by the Student and Others?

Everything that is needed by the student and others for the student to accomplish the tasks in the environments where they need to be done



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Tools for Students

What tools have been identified as needed by the **student** to do the tasks in the environments in order to meet expectations?

- Accommodations
- Modifications
- Technology – AT, IT, UDL, AIM
- Diversified Instructional Strategies
- Supports
- Services
- Training
- Documentation
- Etc.

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Tools for Others

What tools are needed by **others** for the student to do the tasks in the environments in order to meet expectations

Training and support with:

- Decision-making
- Strategies
- Accommodations
- Modifications
- Collaboration
- Device integration
- Device operation
- Device management
- Service delivery
- Etc.

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Implementation is Change

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$A+B+C > X = \text{Change}$

A= Shared dissatisfaction with the current state by a critical mass (Consideration)

B= Shared vision of the desired state by a critical mass (IEP)

C= Practical steps for getting from A to B (implementation plan)

X= Costs of changes

Robert Garmston and Bruce Wellman

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The Expected Outcome

The student uses AT and other strategies to be an active participant in educational activities that increase academic achievement and functional performance

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What areas of the student's achievement and functional performance are expected to change when the student uses AT?

- ✓ Communication
- ✓ Participation
- ✓ Productivity
- ✓ Environmental control
- ✓ Progress in curricular expectations
- ✓ Progress in specific functional skills
- ✓ Other

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What aspects of the student's achievement and performance are expected to change?

- ✓ Quality
- ✓ Quantity
- ✓ Independence
- ✓ Accuracy
- ✓ Spontaneity
- ✓ Rate
- ✓ Frequency
- ✓ Duration
- ✓ Latency

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What are the specifics of how the student will use the AT?

- ✓ For which tasks?
- ✓ Under what conditions
- ✓ Where?
- ✓ When?
- ✓ How?
- ✓ With whom?

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What needs to be changed so that the student can do or learn to do the tasks?

- ✓ Multiple means of accomplishment
- ✓ Use of AT
- ✓ Educational strategies
- ✓ Accommodations
- ✓ Modifications
- ✓ Self Empowerment

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What supports and cues will the student require to be successful?

- ✓ Auditory
- ✓ Visual
- ✓ Tactile
- ✓ Physical
- ✓ Most to least
- ✓ Least to most
- ✓ Simultaneous
- ✓ Other

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Helping Students Develop AT Competence

Adapted from Janice Light:

"Toward a Definition of Communicative Competence for Individuals Using Augmentative And Alternative Communication Systems"

Journal of AAC, 1989, p. 137-143

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Four Aspects of AT Competence

- ◉ **Functional** Competence
- ◉ **Operational** Competence
- ◉ **Strategic** Competence
- ◉ **Social** Competence

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What resources are needed by the people who will support AT use?

- ✓ Parental Support
- ✓ Staff Support
- ✓ Administrative support
- ✓ Time
- ✓ Other agencies
- ✓ Community

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Evaluation of Effectiveness seeks to find out...

- What is happening with the student's AT
- If student is making progress
- If the implementation plan should be changed
- If different tools or strategies are needed

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Evaluation of Effectiveness...

- Includes clearly defined responsibilities
- Is related to one or more goals
- Includes quantitative and qualitative measurement of changes
- Takes place across environments and activities

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Evaluation of Effectiveness...

- Requires analyzing student achievement to identify supports and barriers
- Expects that changes are made based on data
- Is an ongoing process

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In Summary...

- ◉ Effective implementation requires a plan
- ◉ Implementation is effective when data is captured
- ◉ And that data shows that student achievement and performance meet criteria
- ◉ Decisions about change are based on data review and analysis
- ◉ Implementation builds in competency




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