

# **Techniques and Tips for Serving Students with the Most Significant Needs**

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# Meet the Author



- Padmaja - Author of Several Books and Products
  - Books to Assist Educators and Parents to Empower and Enable Children with Autism; Moderate to Severe and Multiple Disabilities; and Young Children
  - Content-area Curriculum Guides; Toolkits & Music CD
- Presenter at Major Conferences in the US and India
- Educational Consultant to School Districts and State Departments of Special Education
- Founder of a Nonprofit Organization –Parent Engagement for Active Child Enrichment (PEACE)
  - To increase the quality of family engagement

# **A Series of Five Webinars:** Serving Children with **Moderate to Severe Disabilities**

- 1. Techniques and Tips for Serving Children with the Most Significant Needs**
- 2. Adaptations and Supports to Engage and Enable**
- 3. Communication and Choice-Making Aided with Technology**
- 4. Creative Art Experiences**
- 5. Designing Your Treasure Chest of Tools**

# Introduction

- The challenge for educators and parents is how to adequately meet the significant needs of children with severe and multiple disabilities and reduce barriers imposed by cognitive, communication and motor difficulties.
- This series of five webinars are designed to:
  - Enable access to meaningful academic and functional activities
  - Provide techniques and tools to make instruction dynamic, interactive and hands-on to actively engage the learner
  - Expect higher levels of performance to reach desired outcomes

# Learning Objectives

- In this introductory session, you will learn how to:
- Use creative strategies –based on research recommended practices– to deliver instruction to address the specific cognitive, communication and motor needs
- Raise the alertness level of students and increase opportunities for interactions with objects and people in the environment
- Actively engage learners with customized and student-specific tools to put them on a growth and learning success trajectory

# Instructional Framework

## Overarching Goal:

**Planning Instruction and Delivery  
to Actively Engage Students in Learning and  
Attain Desirable Educational and Life Outcomes**

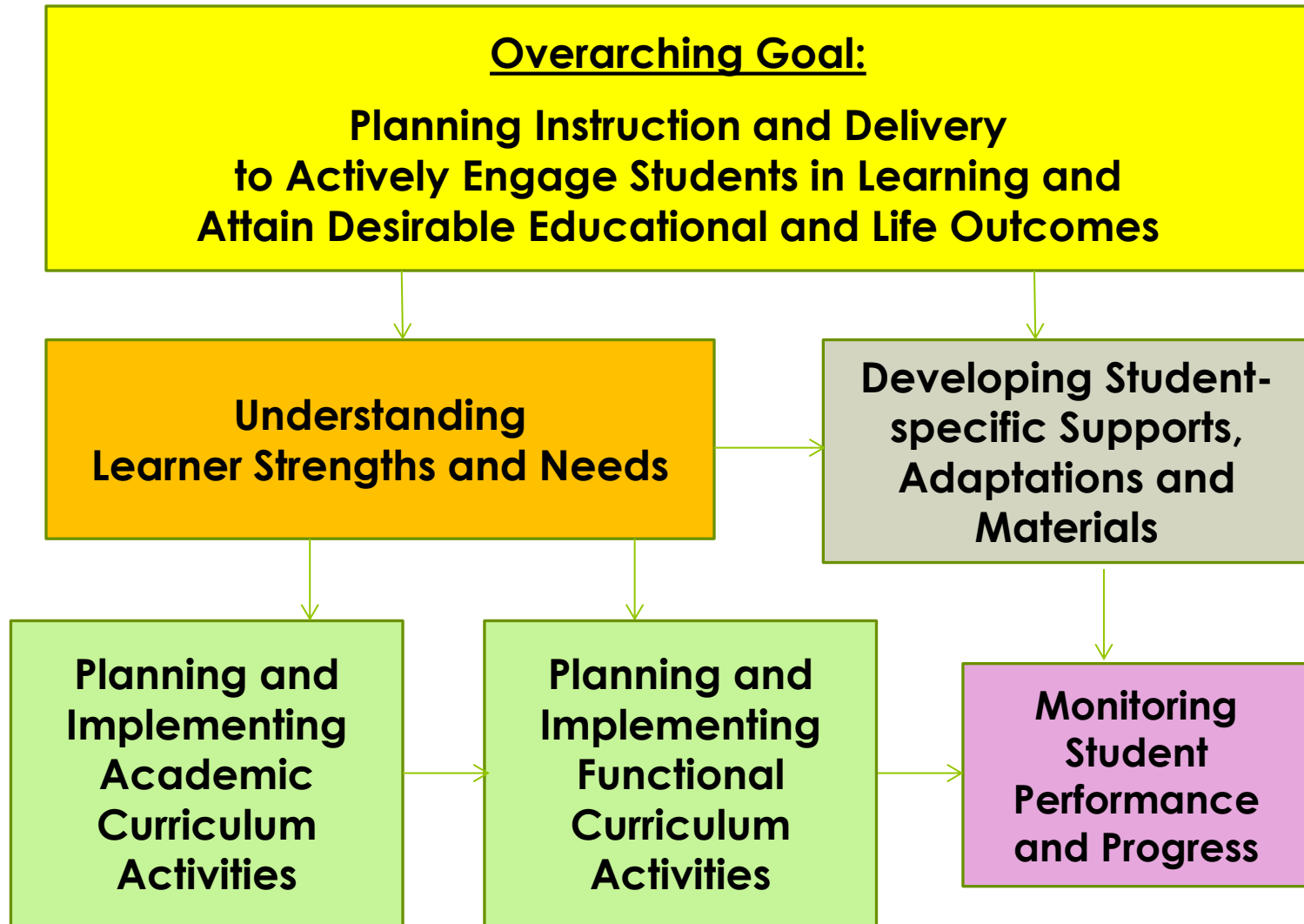
**Understanding  
Learner Strengths and Needs**

**Developing Student-  
specific Supports,  
Adaptations and  
Materials**

**Planning and  
Implementing  
Academic  
Curriculum  
Activities**

**Planning and  
Implementing  
Functional  
Curriculum  
Activities**

**Monitoring  
Student  
Performance  
and Progress**





# The Essentials

***Serving Students  
with Significant  
Cognitive,  
Communication  
and Motor Needs  
to  
Access and Attain  
Academic  
and  
Functional  
Outcomes***

**Universal Design for Learning  
to Address Diverse Learner Needs**

**Partial Participation  
to Promote Learner Independence**

**Engaging and Interactive  
Instructional Delivery  
for Active Engagement and Learning**

**Technology Aids  
(both Mainstream and Assistive  
Technology (AT) to Support Learners**

**Age-Appropriateness  
in Activities and Materials**

# Learner Characteristics

## Determine your target student's Strengths and Needs

- Attends to an activity or listens to a story for a few minutes?
- Makes choices/decisions when (limited) options are provided?
- Indicates “Yes/No” response to literal questions?
- Recalls some facts/basic information previously learned?
- Answers ‘What’ ‘Where’ and ‘When’ questions?
- Able to generalize when provided with multiple opportunities to practice in various settings?
- Draw a conclusion or make a prediction?

# Learner Characteristics

## Consider your student's strengths and Needs

- Makes a choice between 2 items given representational objects related to activity
- Reach for an object with hand or eye gaze or body movement or body orientation
- Shows increased vocalization in response to person or activity or object
- Smiles in response to social, visual, auditory, and/or tactile input
- Shows change in affect
- Activate an AT device to obtain something or to respond to questions
- Orients towards sound through head turn

# Universal Design for Learning Principles (UDL)

Use UDL principles in the instructional planning phase.

- **Multiple Means of Representation**

- Information presented in various formats, at different levels of complexity and to address different learning styles.

- **Multiple Means of Engagement**

- Various opportunities provided to engage student's interest, offer appropriate challenges, and increase motivation.

- **Multiple Means of Action and Expression**

- A variety of formats for responding, and demonstrating what student knows.

(Center for Applied Special Technology (CAST) website: <http://www.cast.org>)

# Delivering Instruction

- Power Point Presentations to present content-area lessons and stories to build concept knowledge
- Visual aids (graphic organizers, story boards) to teach vocabulary/concepts
- Concrete objects, pictures/photos, & auditory input to aid comprehension of text passages or stories
- Real events like breakfast time, lunch-time, dismissal time, etc. to teach time concepts
- Hands-on activities and real-life situations to instruct Math and Science
- Drama and Role-play techniques to promote concept-knowledge, communication and social skills, and vocational skills

# What Are Research Recommended Practices for Serving Students with Significant Disabilities

- **Use of real life mathematics activities to provide meaningful context** (From research on teaching money skills)
- **Use of real life activities** (From research on personal aspects of science found for students with significant cognitive disabilities)
- **Teaching big ideas, prioritized objectives and conspicuous strategies.** (From research on teaching mathematics to students with high incidence disabilities)
- **Use of systematic prompting and fading where applicable** (From overall research on mathematics for students with significant cognitive disabilities)

(Browder, 2008)

# Planning and Delivering Effective Instruction

- Plan and deliver instruction to enable students to actively engage during the lesson.
- Provide access to learning and active participation with student-specific tools
- Ensure the activity clearly addresses and relates to the 'Curriculum Standard' and the student's IEP objective.
- Ask if the activity leads to desirable academic and/or functional outcomes for the student.
- Determine ahead of time how the student will demonstrate what they have learned.

# Systematic Instruction

- **Use systematic instruction techniques** with **errorless prompting to** teach academic concepts.
- Ensure the targeted learning objective is easily identifiable in the instructional activity.
- Break down complex tasks into smaller parts to teach new concepts and to increase student's success with learning.
- Make effective **use of prompts** when presenting information. Gradually fade the prompts.
  - Move from least to most assistance.
  - Limit the amount totally hand-over-hand activity (when adult controls, manipulates and performs the activity for the student).



# Meaningful and Functional Activities

- Embed abstract concepts within meaningful and functional activities. Examples:
  - Real events such as breakfast, lunch, dismissal time, etc. to teach time concepts.
  - Drama, and role-play techniques to promote communication; to teach social skills; and job-preparation skills.
  - A Mock Store with limited number of items to teach money skills.
  - A Nature-Walk to teach science concepts (natural phenomena, weather, plants and growing things, etc.)
  - Games (aided with All-turn-it Spinner) to teach colors, numbers, food vocabulary words, etc.

# Learner Responses

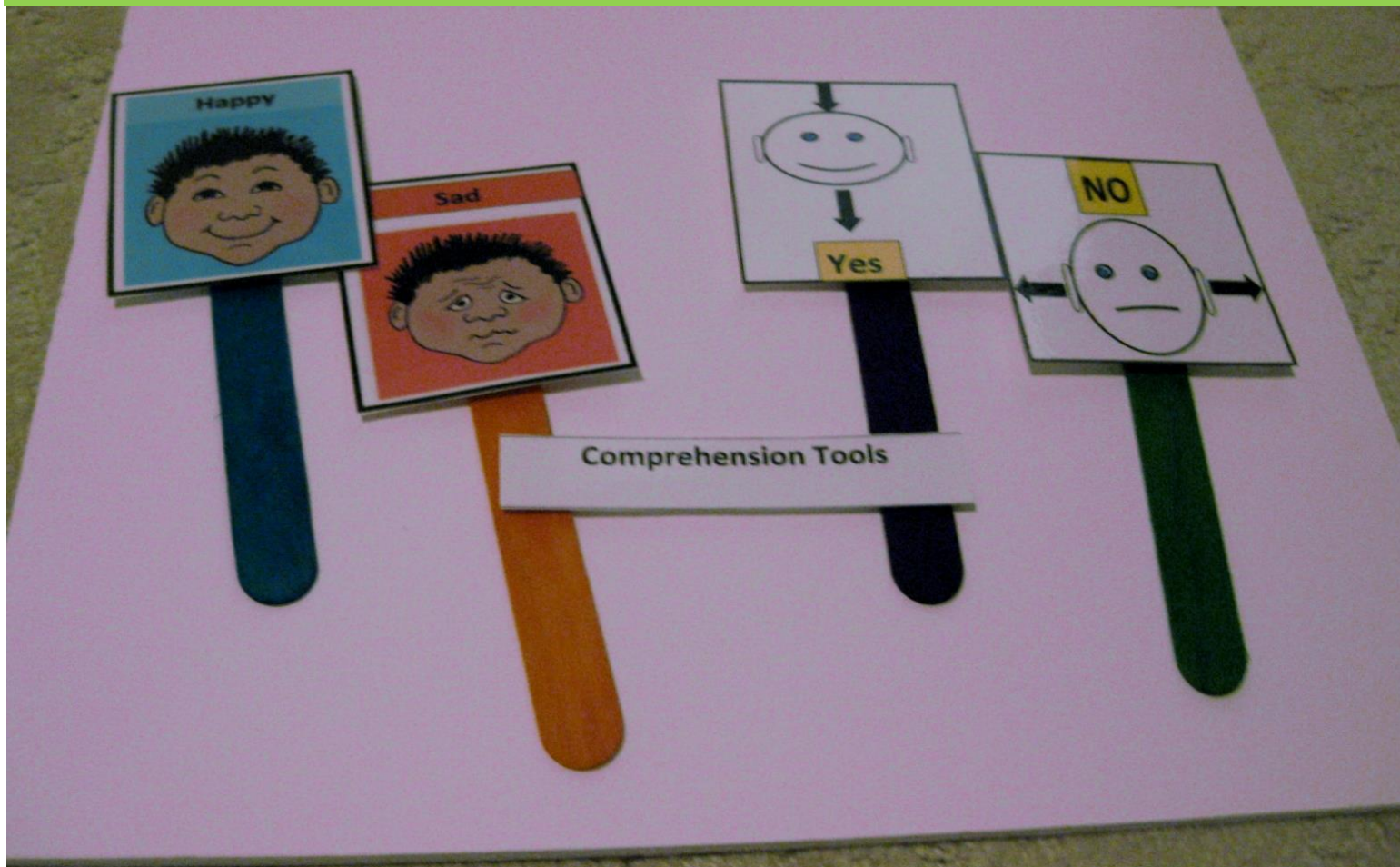
- Present multiple ways for student to actively respond during the activity/lesson:
  - Respond in complete sentences/phrases.
  - Use Yes/No Participation cards
  - Read the text with the aid of the picture cues.
  - Point to pictures or objects related to story as story or text passage is read.
  - Make a choice between 2-3 options given with or without the aid of AT.
  - Touch and manipulate the item
  - Reach for the target item with eye-gaze or body orientation or facial expression
  - Activate an AT device to respond (gain a voice).

# Build Concept Knowledge

## Learning Objective: Recognition of Self and others

- **For Attendance:** Create a Power Point Presentation with student photos paired with names and a statement about the student.
- **Student Engagement:** Match photo to photo or photo to name.
  - Have students match a photo card -with their name and photo- to the power point presentation or on an attendance display chart.
- **Student Response:** Use verbal response, Yes/No cards, vocalization, body orientation, eye-gaze, touching, etc. to recognize photo of self and others.

# Communication and Student-Response Tools



# Teach Social Skills



**Greeting Peers and Adults**

# Adapted Calendar

- An **Adapted Calendar** with events and objects to represent the days of the week will promote concept building and problem-solving skills.
- Associate something meaningful and a real event with each day of the week. For example: Say, “Today is Monday.”, “It is nature-walk day.” and “We go on a nature walk today.”).
- Go outside at least for a few minutes and let students bring an item from outside representing ‘Nature’.
- They can bring leaves, a flower, a pebble, a twig, a blade of grass, a feather, etc.



# Adapted Calendar



Pair concrete objects paired with text to the 'Days of the Week' for students to manipulate and to have a tactile experience during a calendar activity.

# Partial Participation

## How does 'Partial Participation' Work?

- Learner may learn to perform several steps or only one step in the task and may be assisted during all the other steps. The adult no longer has to perform them for the child.
- The activity is 'Literacy–Story Reading'. The child's participation may be:
  - Tolerate touching and feeling the book or locate eye-gaze the object attached to the book page
  - Follow a simple teacher-direction related to the reading activity (e.g., making a choice).
- Teach the student gradually to complete 2-3 steps independently.



# Interactive Techniques

Create a Graphic Organizer with concrete objects for the story of 'Giving Tree'



Build concept knowledge

# Technology Aids

## Enlist The Power of Technology and Assistive Technology (AT)



# AT Supports

## Quick Talker



Build vocabulary and  
Communication skills

## Talking Brix Communicator



Learn a sequence of activities;  
Indicate when an activity will begin,  
with 5 minutes to go and the end

## iTalk2 Communicator

Make a choice between  
drink first or eat first;  
Respond Yes/No to questions;  
Choose one or two items or a  
preferred activity



## BIG Step-by-Step with Levels

for a series of instructions or  
recipe directions or a game



## Voice Output Devices

Downloaded photos used by permission from AbleNet  
([www.ablenetinc.com/Assistive-Technology](http://www.ablenetinc.com/Assistive-Technology))

## An Elementary Student

# Meet Sam:



- Greets with a “hi”
- Communicates using a few phrases/words.
- Attends to story/ lesson for 1-3 minutes.
- Able to grasp and hold objects
- Throws or knocks items off his desk.
- Likes to pace around the room frequently
- Likes to listen to music
- Able to eat independently

### UDL Tools:

Power Point Presentations; Adapted Story Summary; Graphic Organizers, etc.

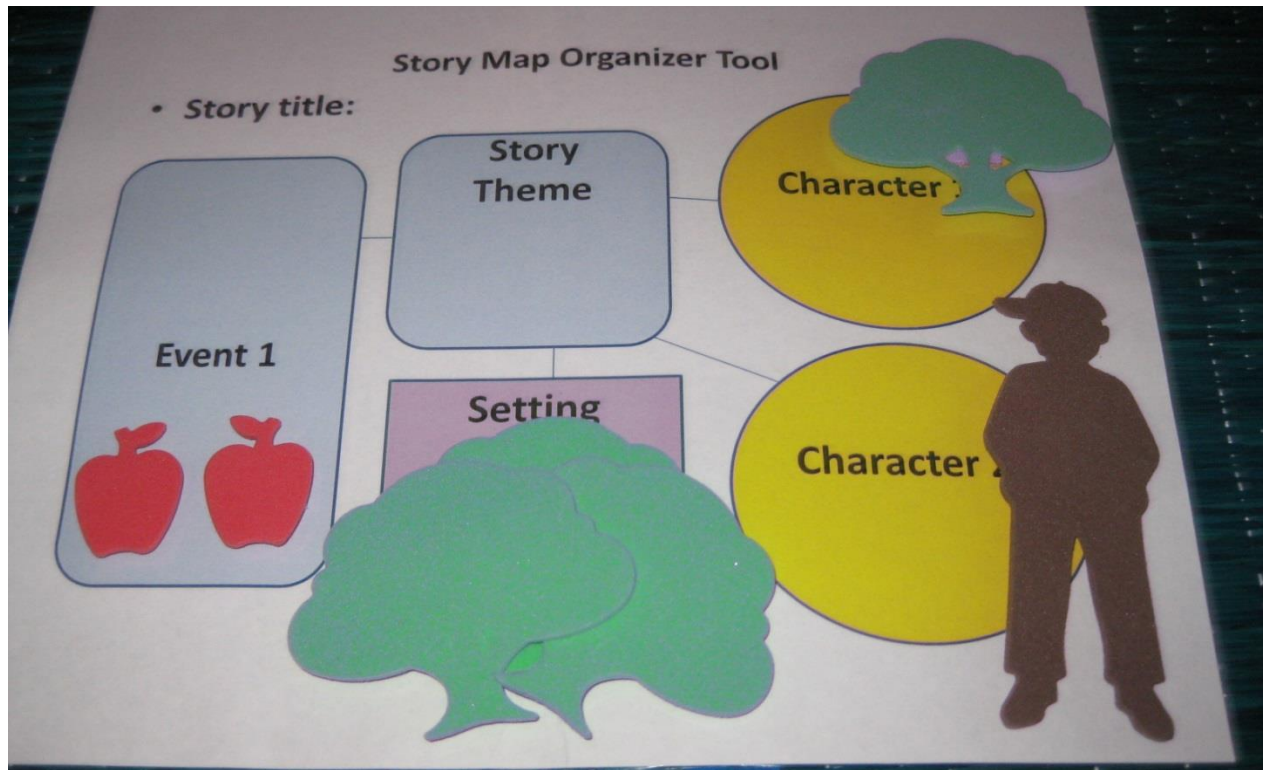
- Use Yes/No cards to respond to questions;
- Frame sentences with picture supports (choices) aided with AT device
- Drama and Role Play to increase communication

### Technology Aids:

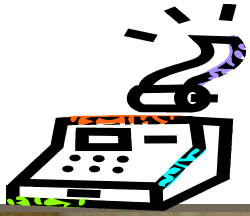
Use Apps and Quick Talker to build vocabulary and increase communication; Step by Step for group participation



# Story Comprehension Tool



**Interactive story props –Velcroed foam story pictures– to engage and sustain attention and facilitate student response**



# A Mock Store



## A Middle School Student

# Meet Diane:



- Participates and responds through eye gaze and vocalization
- Attends to story/lesson briefly
- Uses a wheel chair
- Closed hand-fist position
- Positioned for a large part of the day
- Receives feeding via g-tube
- Needs assistance with personal care

- An object-based activity schedule
- Adapted calendar
- Representational items attached to mini board to teach vocabulary and increase interaction and engagement

- Make adaptation to grasp and hold objects
- Use 'On-the-Go' activities to build concepts and vocabulary while positioned and during feeding
- Age-appropriate items

### Technology Aids

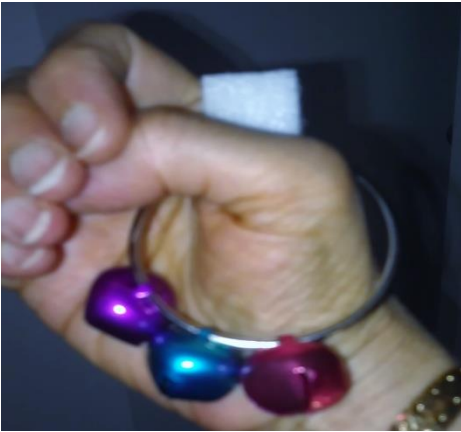
Adapted for environmental control switches; iTalk2 communicator to learn to make choices

# Student Engagement

- Draw student's attention with hands-on activities with multi-sensory features.
- Engage student's attention by tapping on the picture and/or object (on the mini white board associated with the lesson/concept/story).
- Maintain attention by illuminating the pictures and key words in the (adapted text) book with shining a light from behind (Downing, 2005).
- Note all initiations by the student– how the student initiates through sounds, movements and changes in state and affect



# Adapted Tools



Compensate for motor needs

Make an activity choice



Interactive books



Story Characters presented on a mini board



# Teach Social Skills



**Greeting Peers and Adults**

# Participation

- Apply the 'Potato' Test (according to Orelove & Sobsey, 1996), to see if the student is a passive receiver of stimuli or, worse, a mere presence in the activity.
- When attempts at initiation are understood and respected (by adults and peers), student recognizes that the environment can be controlled.
  - Leads to development of choice-making skills
  - Enables participation (at least partially) in natural rhythms and routines of daily life as well as in curriculum activities

Orelove, F.P., & Sobsey, D. (1996). Educating children with multiple disabilities: A transdisciplinary approach (pp 119-159). Baltimore: Paul Brookes

## Age-appropriateness

- **Ensure age-appropriate activities and age-neutral materials are used.**
  - Props used to aid instruction –objects, photos and pictures– should provide access to grade-appropriate materials and respect the age/grade level of the student.
  - Use brief summaries of grade-level stories or high interest-low vocabulary books; teacher-made books; recipe books and cards; adapted menu cards; etc. instead of preschool books.
  - Avoid the use of preschool activities and materials with older students

# Progress Monitoring

- **Monitor progress systematically and consistently to advance student growth.**
  - Use 'Data Probes' to assess and monitor progress d several times a week on specific targeted objectives.
  - Modify instructional strategies, adapted materials and supports, to re-teach and re-assess if it is indicated from the data.

# Resources

- Serving Students with Severe and Multiple Disabilities: A Guide to Strategies for Successful Learning., Sarathy, P. (2005). LRP Publications, PA
- Striking a balance between NCLB and IDEA for Students with Significant Disabilities: Techniques and Tools for Aligning Standards-based Instruction, Alternate Assessment and IEP. Sarathy, P. (2008). LRP Publications, PA.
- Teaching Language Arts, Math, & Science to Students with Significant Cognitive Disabilities., By Browder, D.M., & Spooner, F. (Eds.). (2006). Brookes Publishing, MD
- Teaching Literacy to Students with Significant Disabilities., Downing, J.E. (2005). Corwin Press, CA
- UDL website: (Center for Applied Special Technology (CAST) <http://www.cast.org/research/udl/index.html>

# Resources

- Accessing the Curriculum Toolkit. by Padmaja Sarathy, (2013). Offers diverse tools to engage and enable students with most severe disabilities. Follow the link to see the toolkit – Available from TFH USA Ltd. – to see contents and a brief description:  
<http://www.specialneedstoys.com/usa/mse-kits/2272-accessing-curriculum-tool-kit.html>.
- Content-area Curriculum Guides for Moderate to Severe Disabilities (Elementary/Secondary mini-guides or CD) by Padmaja Sarathy, (2013). For additional details and ordering information, go to: [www.infinitepossibilities-sped.com](http://www.infinitepossibilities-sped.com).
- Interactive Adapted Books, by Padmaja Sarathy, (2013). For additional details and ordering information, go to: [www.infinitepossibilities-sped.com](http://www.infinitepossibilities-sped.com).
- On-the-Go Activities by Padmaja Sarathy, (2013). For additional details and ordering information, go to: [www.infinitepossibilities-sped.com](http://www.infinitepossibilities-sped.com).



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