

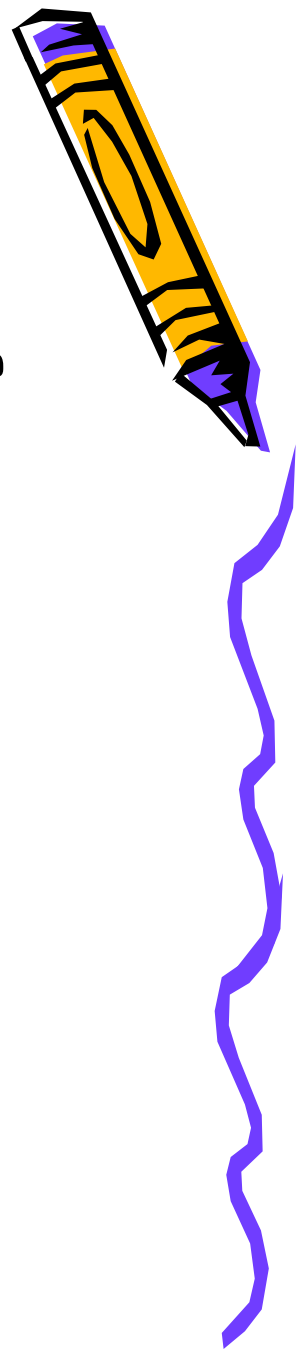


Classroom Strategies from a Sensory Integrative Perspective

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Do you have unanswered questions about some of your students?



1. Why is Emma so disorganized?
2. Why does Jack struggle so much to engage in classroom activities?
3. Why is Haley particular about so many things?
4. Why is Michael so fragile?



What is sensory
integration and how does
it support learning and
behavior?



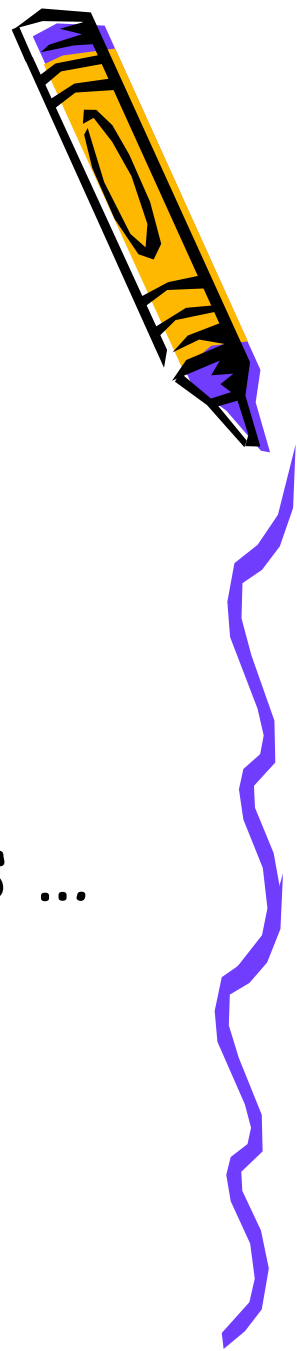
The Theory of Sensory Integration



- The founder: A. Jean Ayres
- Sensory Integration - refers to the CNS capacity to process sensory input.
- Ayres defined it as the ability to organize sensory information for use. The "use" may be a perception of the body or the world, an adaptive response, a learning process, or the development of some neural function.

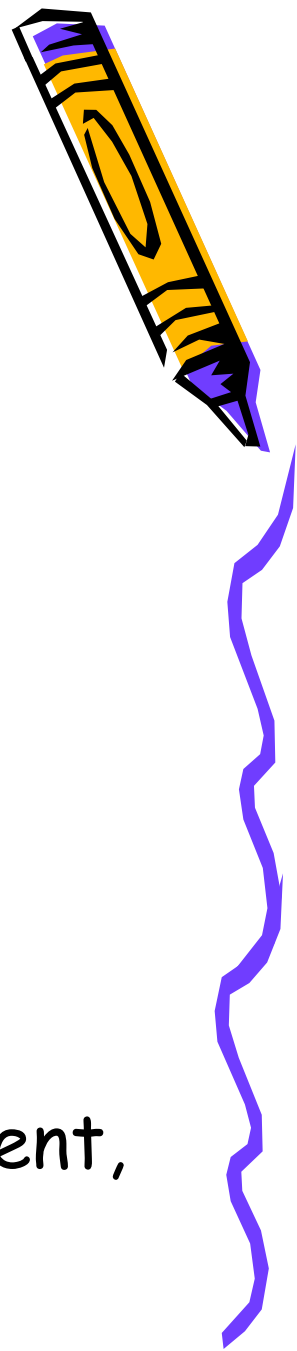


The Sensory Systems



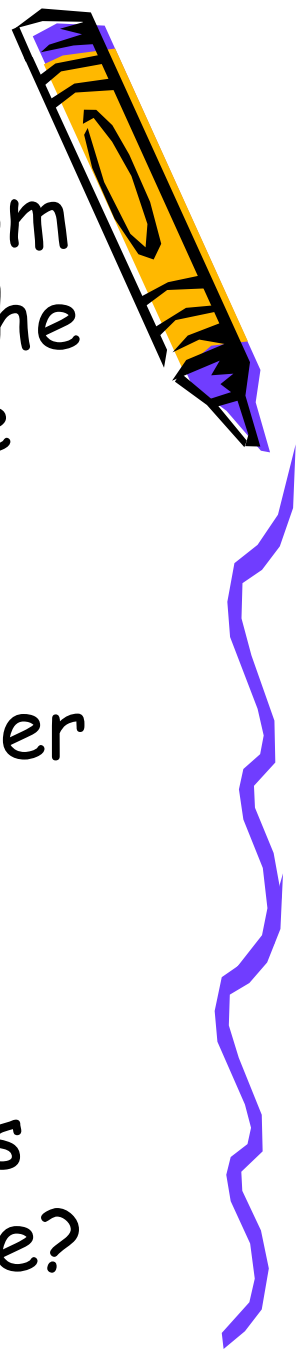
- Forming the foundation for integration are the sensory systems.
- There are seven sensory systems ... can you name them?

The Seven Senses

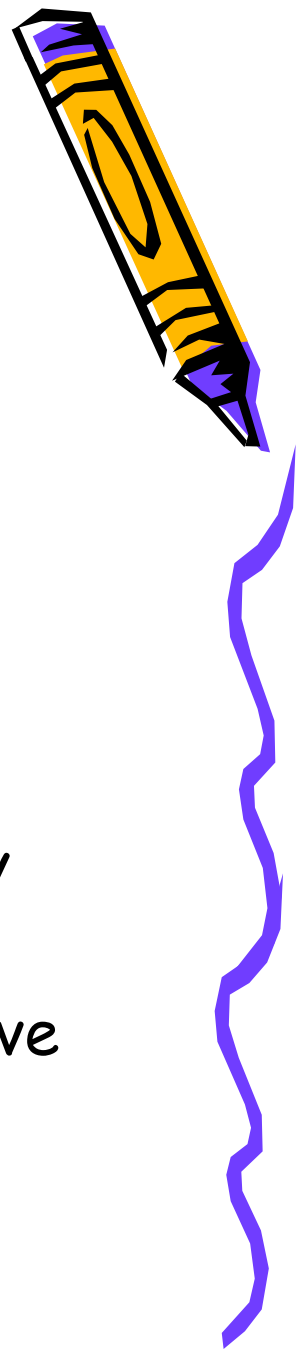


- Visual sense - sight
- Auditory sense - sound
- Gustatory sense - taste
- Olfactory sense - smell
- Tactile sense - touch
- Proprioceptive sense - position and movement
- Vestibular sense - gravity, head movement, and balance

Why is Emma so disorganized? She is constantly running around the room and won't sit still for circle time. She bumps into every piece of furniture and almost every child in her path. She is always making a mess during art time ... she knocks over the water cup and squeezes glue all over her project and the table. She has started to bite other children and chew on toys as well as her shirt. Is this just a lack of discipline at home?

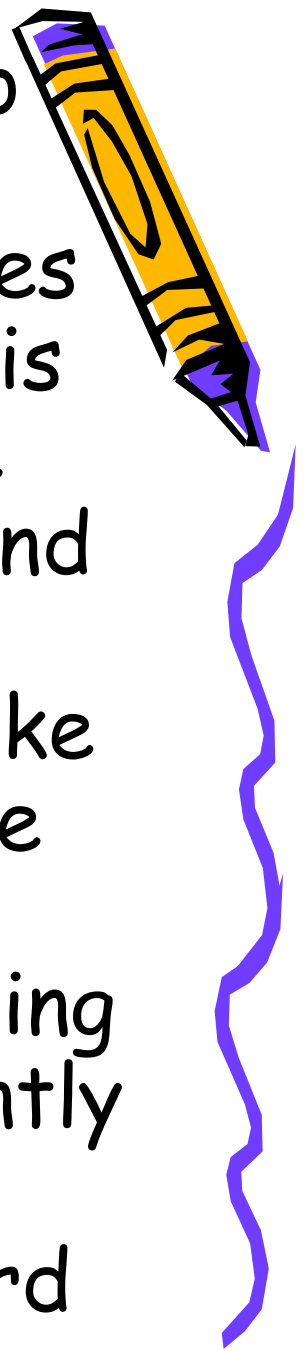


Primary Sensory Systems

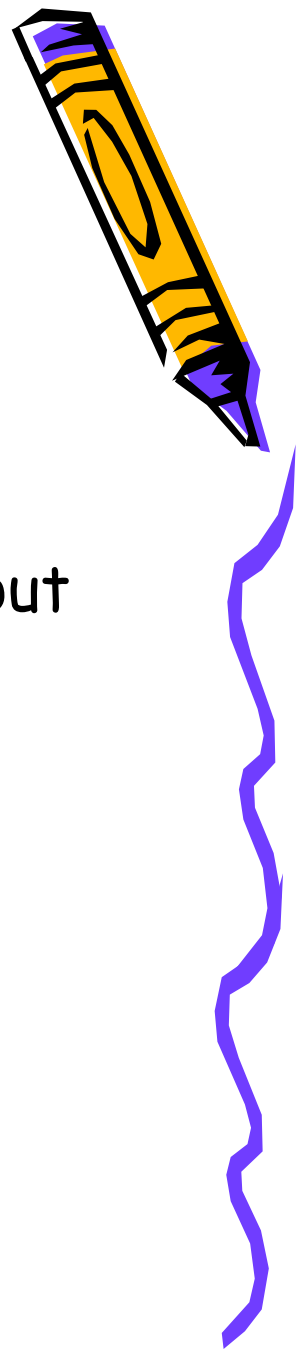


- **Vestibular**
 - Lays the foundation for emotional security through relationship with gravity.
 - Enables mastery of gravity and body movement through space.
 - Works closely with the proprioceptive system.

Why does Jack struggle so much to engage in classroom activities? He never follows directions and it takes him such a long time to complete his worksheets. On the playground, he usually watches the others climb and swing, but he rarely participates. Many of the other children don't like to play with him at centers because he can be so bossy and controlling. He has such a hard time transitioning to different activities and frequently throws tantrums. He seems like a bright child so why is school so hard for him?



Primary Sensory Systems Continued

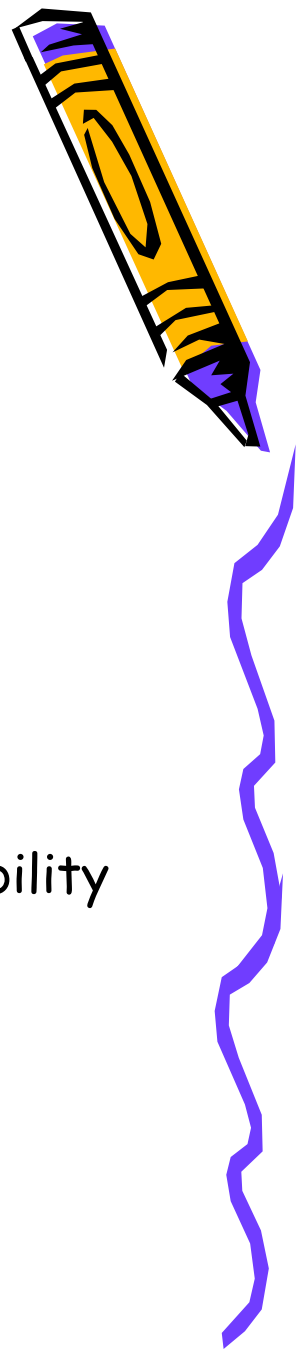


- **Proprioceptive**
 - Modulate vestibular and tactile input
 - Impact on body image
 - Impact on position in space
 - Impacts motor planning/praxis abilities
 - Organization

Why is Haley particular about so many things? She doesn't want to take her shoes/socks off for nap time or put them back on. She doesn't want to take her jacket off, even in the summer. She does not like to play in the sand/water table. She covers her ears during music time and is easily distracted. She always avoids participating in craft time, especially with glue or finger painting. She appears uncomfortable in her clothes as she is constantly tugging at her sleeves and shorts. Walking in line to and from the playground is always a huge issue ... she never stays in her spot and pushes her peers. Is she just trying to get attention?



Primary Sensory Systems Continued



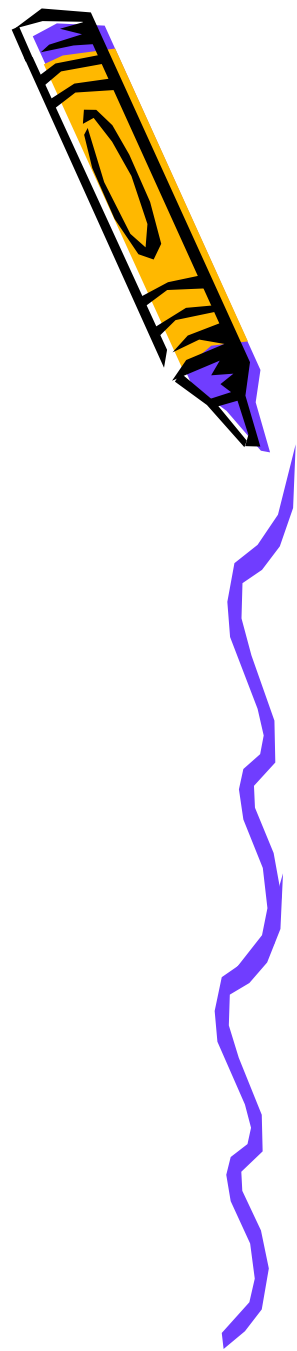
- Tactile
 - Emotional development
 - Body scheme
 - Skills associated with:
 - » Tactile perception
 - » Motor planning/praxis (refers to the ability to plan new movements)
 - » Sequencing
 - » Organization
 - » Visual perception



What is sensory processing disorder and how does it affect a child's ability to learn and play?

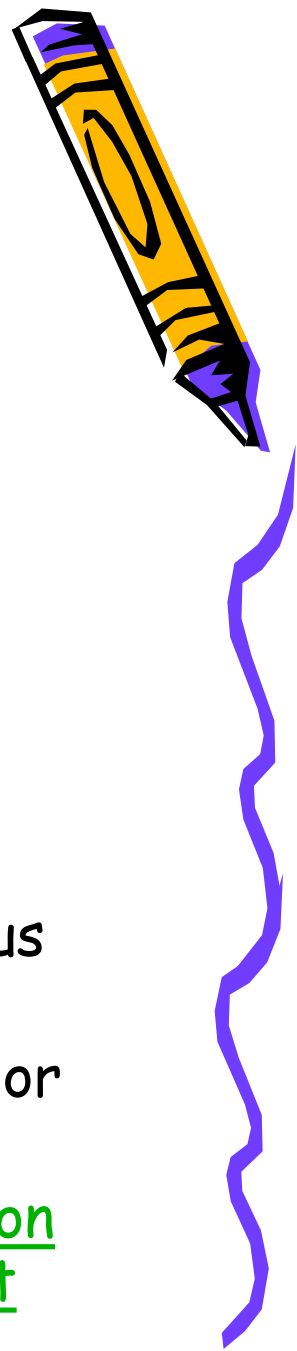


Sensory Processing Disorder



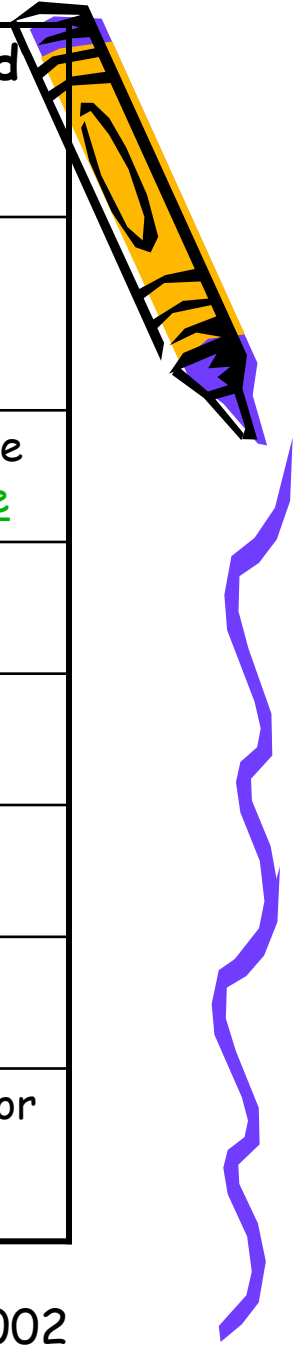
- Result of poor organization of information gathered from our senses
- Hidden problem
- Broad disorder with a variety of specific patterns of dysfunction

Signs of Inadequate Vestibular Development

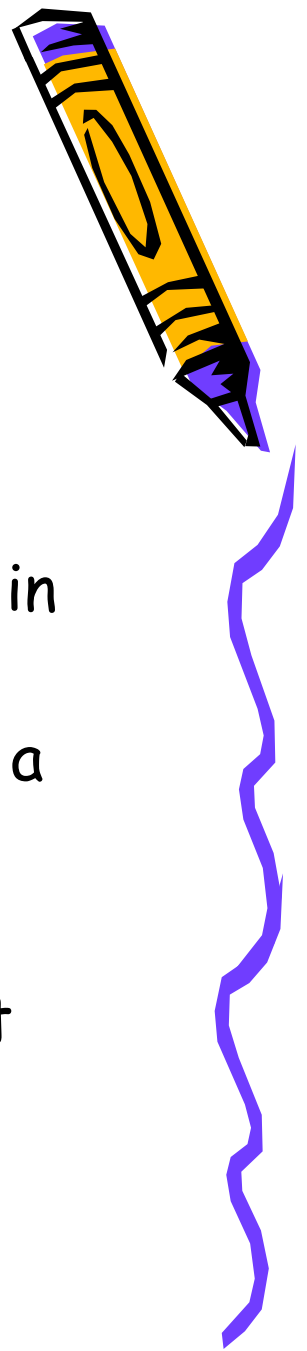


- Poor postural control
 - Adjustment of body to movement
 - Poor equilibrium
 - Poor compensatory eye movements
- Poor bilateral motor skills
- Modulation disorders:
 - Fear with movement; slow and cautious movements (GI)
 - Nausea with movement (intolerance for movement)
 - Poor registration and/or discrimination of movement. Craving movement input (sensory seekers)

Functional areas affected by vestibular-proprioceptive processing	Behaviors that can be observed
Postural control and extensor tone	Slumping, poor posture Rounded upper back Leaning, difficulty with sitting
Gravitational insecurity	<u>Slow and cautious movement</u> , observe for level of <u>anxiety or fear response</u>
Bilateral motor coordination	Difficulty riding a bike and performing jumping jacks
<u>Projected action sequences</u>	Difficulty catching/kicking a ball or running to catch/kick a ball
Oculo-motor control	Difficulty copying from blackboard Poor visual tracking (reading)
Language development	<u>Delayed language development</u>
Level of arousal	Low arousal level, slow to get going, or can be high activity level, <u>seeking movement</u>

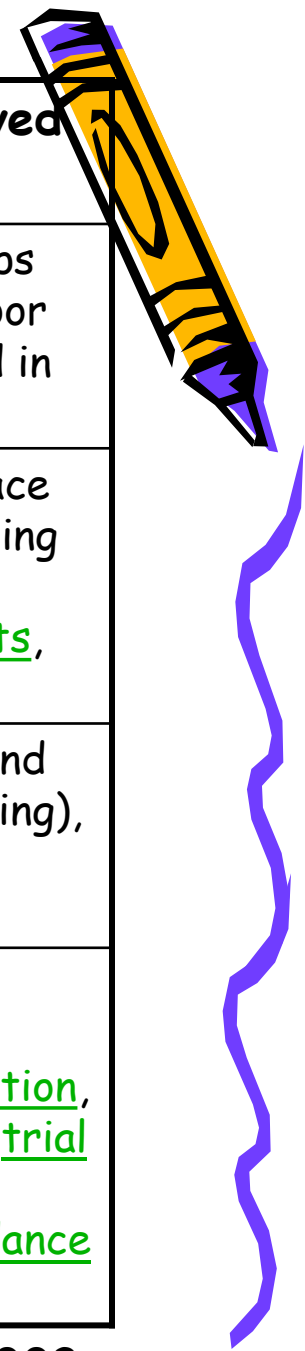


Signs of Inadequate Proprioceptive Development

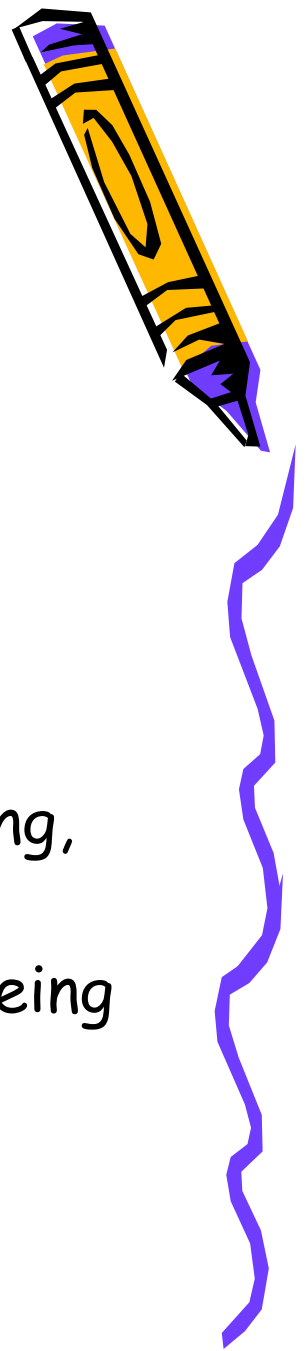


- Lack of fluidity in movement
- Decreased muscle tone or stiffness in joints
- Difficulty with co-activation around a joint
- Poor grading of muscle force
- Tendency to lean or look for support outside oneself
- Craving activities that provide proprioceptive input

Areas affected by processing proprioceptive information	Behaviors that can be observed
Muscle tone	<u>Generalized low muscle tone</u> , grasps objects loosely, fatigues easily, poor grading of muscle force evidenced in poor muscle coordination
Postural control	When moving the supporting surface on which the child is sitting/standing observe <u>postural reactions</u> , <u>compensatory postural adjustments</u> , and awareness of body position
Proximal joint stability	During weight bearing, observe hand adjustment, scapula position (winging), locking elbows and/or lordosis of trunk
Motor control and motor planning	Observe for <u>planning</u> , timing, imitation, sequencing, <u>ability to translate verbal directions into action</u> , and construction. Note amount of <u>trial and error</u> , <u>need for direction</u> , guidance and demonstration, <u>avoidance of new activities</u>

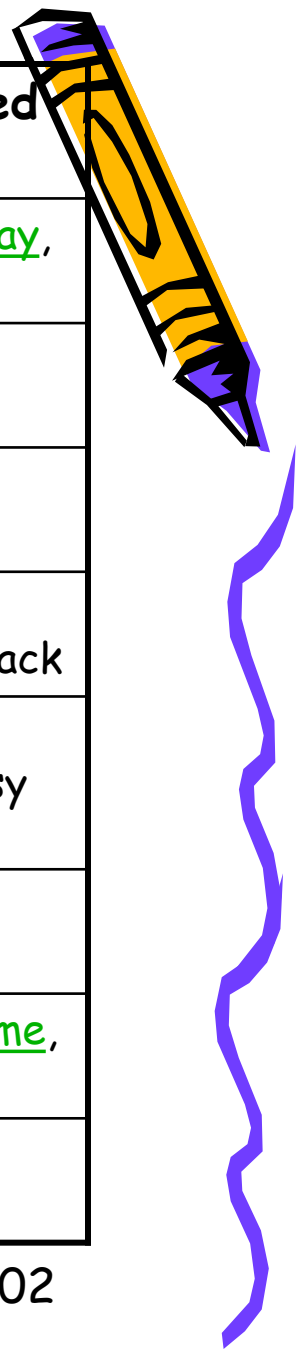


Signs of Inadequate Tactile Processing



- Early feeding problems
- Poor eating patterns
- Difficulty with ADL activities
- Aggressive behaviors (pushing, hitting, pinching, biting)
- Avoidance of contact with others, being held
- Difficulty with development of fine motor skills, praxis

Functional areas affected by tactile processing	Behaviors that can be observed
Emotional reactions to being close to others	Hitting, pushing, shoving, <u>pulling away</u> , arching back
Focused attention	Difficulty filtering input and completing a task
Activity level	High activity level
Irritability	Fussy, <u>whining in response to being touched</u> , pulling away and arching back
Oral motor skills	Drooling, difficulty transitioning to new foods, poor eating habits, messy eater, <u>poor articulation</u>
Hand skills	Poor fine motor/manipulative skills, difficulty with stereognosis
Motor planning	Clumsy movements, <u>poor body scheme</u> , <u>difficulty shifting/transitioning</u>
Sociability	Difficulty making friends



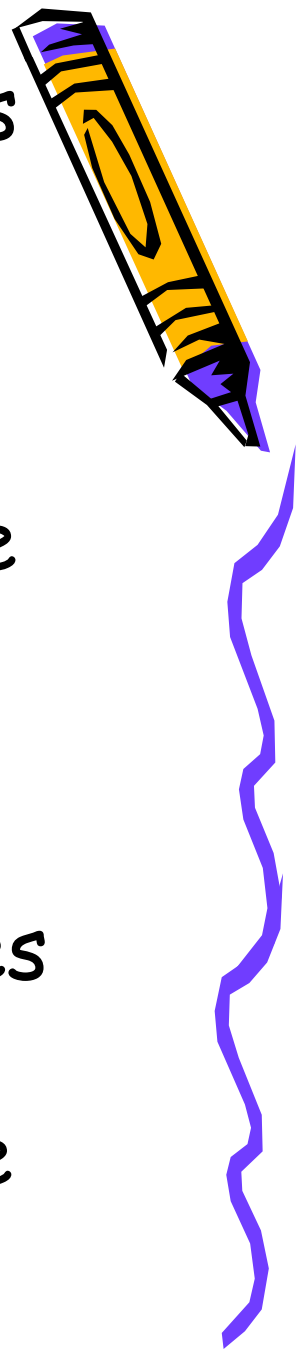
Blanche, 2002

Problems of Modulation

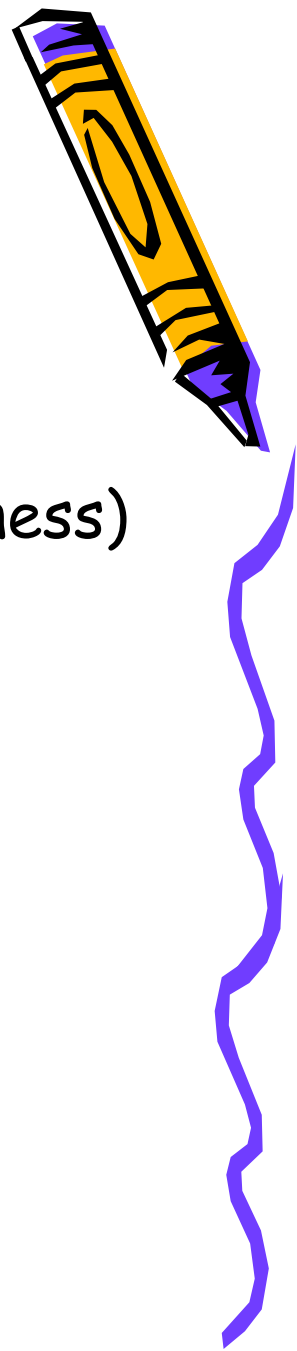


- Modulation: The brain's regulation of its own activity. It is the process of increasing or reducing a neural activity to keep that activity in harmony with all the other functions of the nervous system.
- Under or over responding to sensory input

Why is Michael so fragile? He moves around the classroom carefully and refuses to climb on any of the playground equipment. He starts crying when I pick him up to use the water fountain. He gets so upset when I have him lie down to change his diaper. He won't step up on the stool to wash his hands. And he cries every time he walks up or down the stairs into the classroom. Why is he so moody all the time?

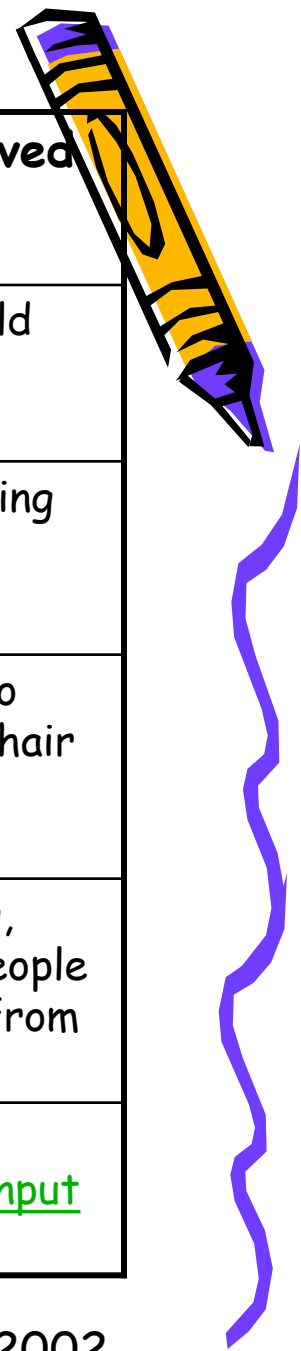


Problems of Modulation

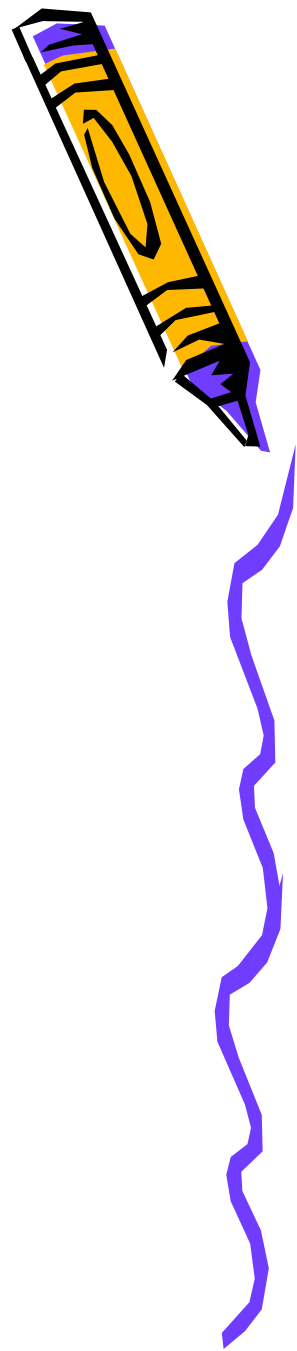


- Four types described:
 - Sensory defensiveness (Tactual Defensiveness)
 - Gravitational insecurity (GI) manifested as irrational fear of:
 - Movement
 - being out of the upright position
 - having one's feet off the ground
 - Aversion to movement (car sick)
 - Under responsiveness (sensory seekers)

Areas affected by modulation of sensory input	Behaviors that can be observed
Arousal, attention and activity level	Fidgety, cries in large groups, child doesn't like B-Day
Social interactions	<u>Aggressive behaviors</u> , biting, hitting Controlling, bossy behaviors Poor peer interactions
Self care	Poor sleeping patterns, inability to dress c/o clothing, dislike having hair brushed, teeth brushed, or face washed
<u>Frustration tolerance</u>	Gets irritated by tags on clothing, gets irritated when handled by people other than caregiver, pulls away from light touch
Attention	Fight or Flight, stays in hi-alert, <u>difficulty with filtering sensory input</u>

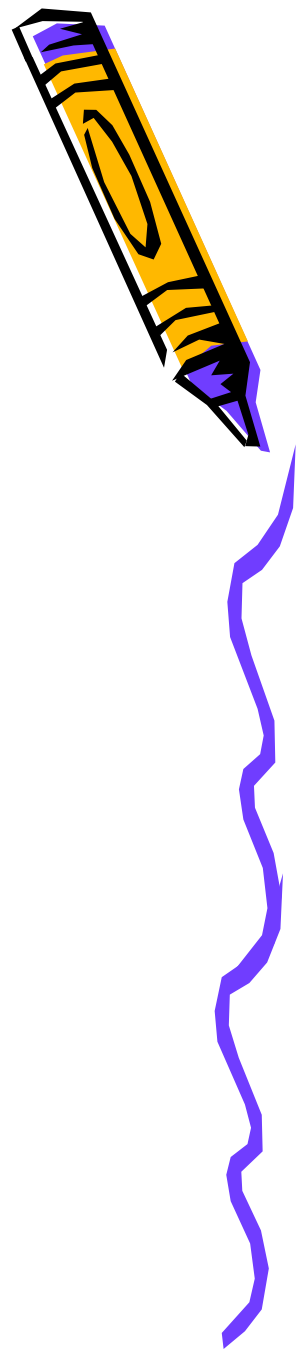


How are you doing with your sensory experience?

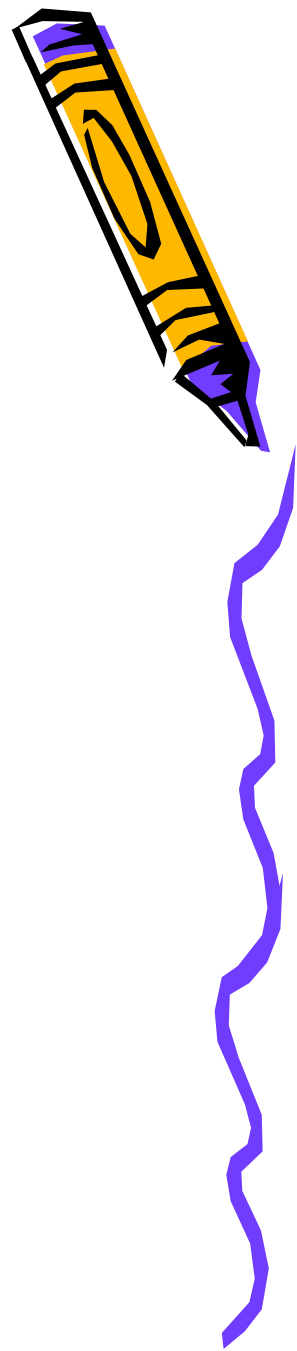


- Are you having difficulty paying attention?
- Are you doing anything to help yourself modulate?
- Did you already habituate to it?

What can be done to
help children with
sensory processing
concerns?

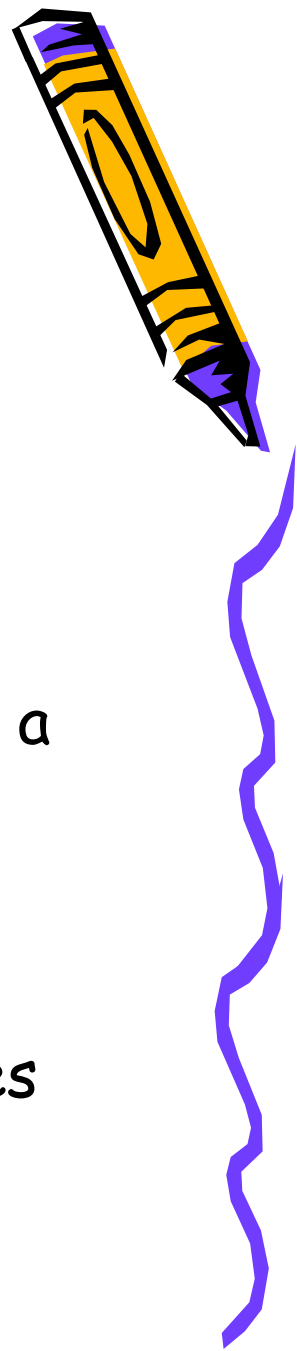


Classroom Suggestions



- Trouble staying seated:
 - Provide more opportunities for movement
 - Incorporate whole-body movement breaks
 - Arrange different types of seating areas
 - Consult with OT/PT for alternative seating devices

Classroom Suggestions



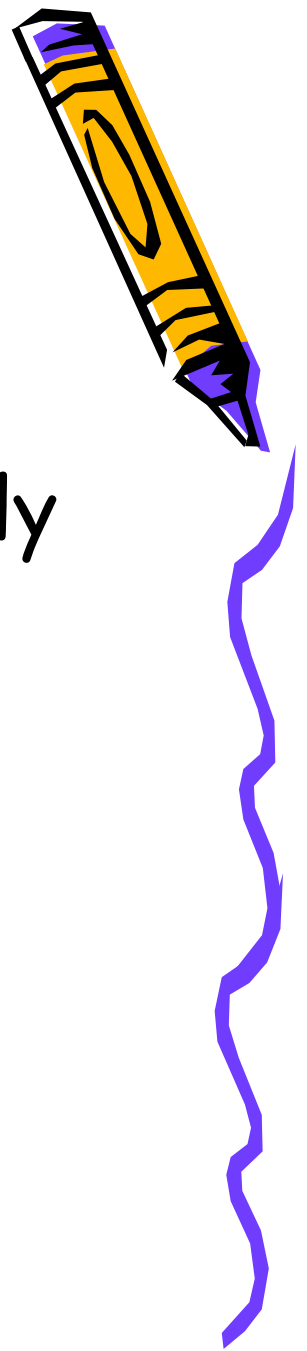
- Difficulty paying attention:
 - Limit visual distractions
 - Use natural lighting
 - Position child in front of classroom
 - Incorporate tactile feedback by providing a fidget
 - Use movement to reinforce a concept
 - Play soft classical music
 - Make "heavy work" and movement activities available
 - **DO NOT TAKE RECESS AWAY AS A CONSEQUENCE**

Classroom Suggestions



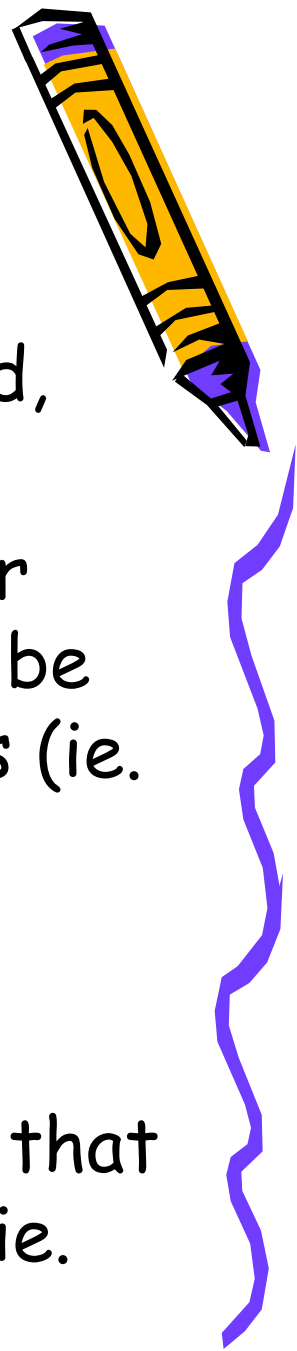
- Difficulty with motor skills:
 - Limit verbal directions while the child is attempting the skill
 - Determine if child develops skill better by imitation or following verbal directions
 - If verbal or visual instruction has limited results, "move" the child through the motion with gentle hand-over-hand guidance
 - Help the child determine the first step and how to get started
 - Provide feedback during actions
 - Use songs and rhythm to reinforce patterns of actions
 - Allow additional time to learn and practice skills in the absence of other children

Classroom Suggestions



- Markers - for special occasions only
- Small, broken crayon pieces to facilitate pincer and tripod grasp
- Modeling clay and play-doh
- Gum for organization

Classroom Suggestions/Observations



- If child is overly sensitive to touch, sound, smell, etc. (Tactually Defensive - TD):
 - Acknowledge that some people "feel" or experience sensation in a way that can be more irritating than they are to others (ie. limited wardrobe).
 - Help the child recognize the offensive sensation.
 - Prepare child in advance for situations that might involve the offensive sensation (ie. fire drills).

Classroom Suggestions/Observations



- If child is TD:
 - Develop strategies the child can use when things feel uncomfortable.
 - ALWAYS approach a child from the front.
 - AVOID LIGHT TOUCH. Firm touch is generally more acceptable. Bear hugs may be more easily tolerated than "ticklish" touch.
 - Be cognizant of the child's facial expression. It will tell you whether to touch or to *leave the child alone.*



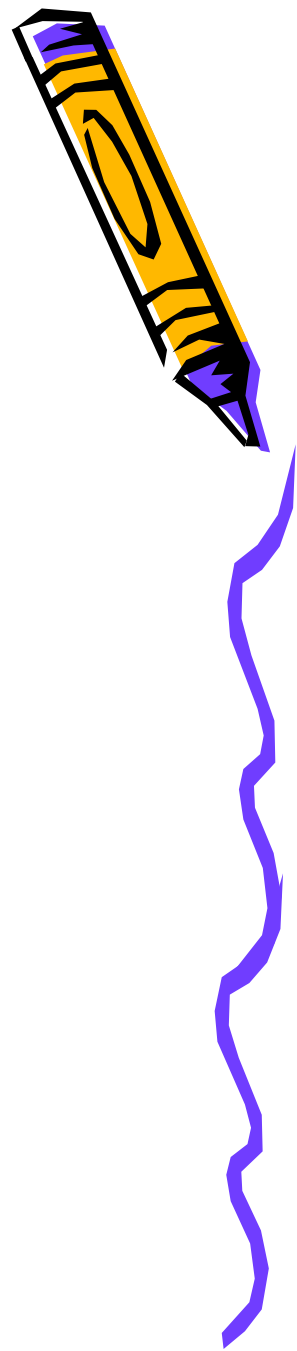
Classroom Suggestions/Observations



- If child is TD:
 - In a group situation, allow the TD child to be at the periphery of the group or at the back of the line.
 - Bright lights and loud noises may be distressing to the child. Strong odors may elicit nausea.
 - Certain types of textures of food may be unpleasant (limited repertoire of food selections).



Classroom Suggestions/Observations



- If the child is TD:
 - Routine hygiene activities may be distressing.
 - Bathing
 - Grooming
 - Dressing

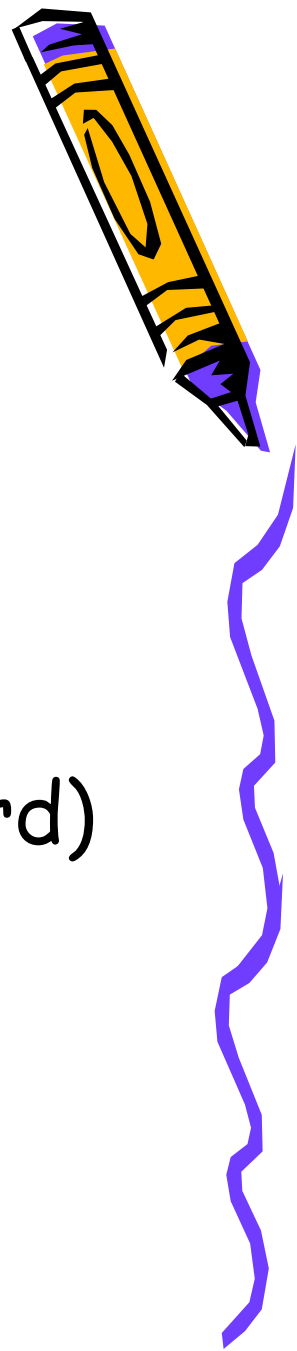
Classroom Suggestions/Observations



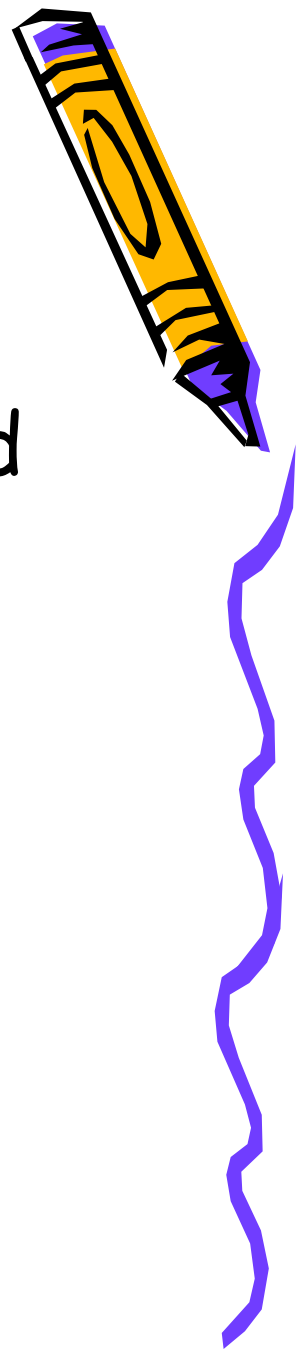
- If the child is TD:
 - He may appear to be aggressive (kicking, hitting, biting, growling, etc.)
 - He may appear to be bossy and controlling.
 - He may frequently go into flight, fight, or freeze reactions.

Ways to Calm a Child

- Deep pressure touch/bear hugs
- Dim lighting in the room
- Slow rocking (rocking chair)
- Use a soft, nurturing tone (code word)
- Quiet time in a secluded area
- Heavy work activities

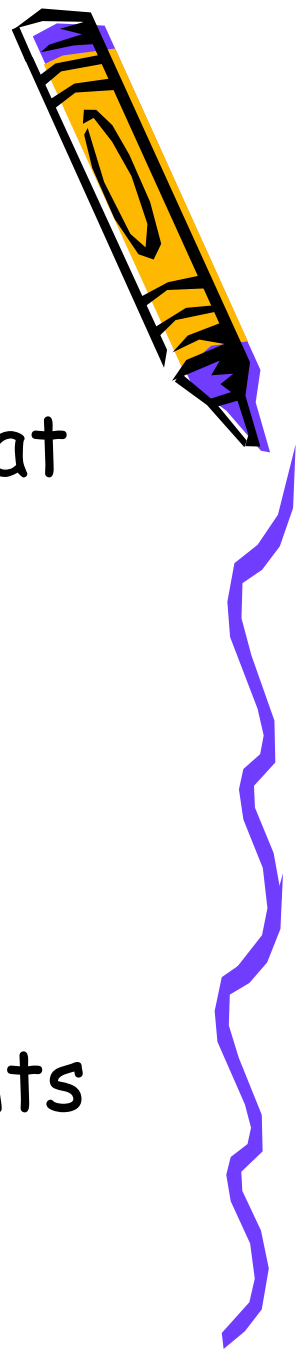


Successful Implementation



- Identify sensory triggers (how and why)
- Recognize early signs of sensory overload
- Prepare for challenging activities with sensory activities
- Provide sensory "breaks" to reorganize between activities

Successful Implementation



- Allow for ongoing sensory input that is organizing
- Sensory strategies are best used before a child shuts down, breaks down (aggressive) or before the child's sensory seeking behaviors become disruptive to other students

Successful Implementation



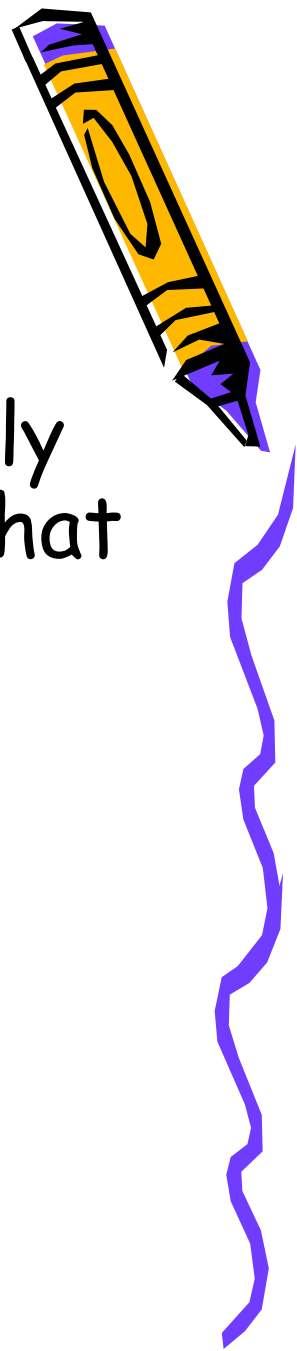
- To limit distraction of sensory strategies:
 - Set "rules" or guidelines for their use
 - Have a safe, accessible place for fidget tools when not in use
 - Test out the success of fidget tools by observing attending behavior and asking questions about listening
 - Sensory strategies must be available frequently enough that the child is insured they will get it as often as they need it

Successful Implementation



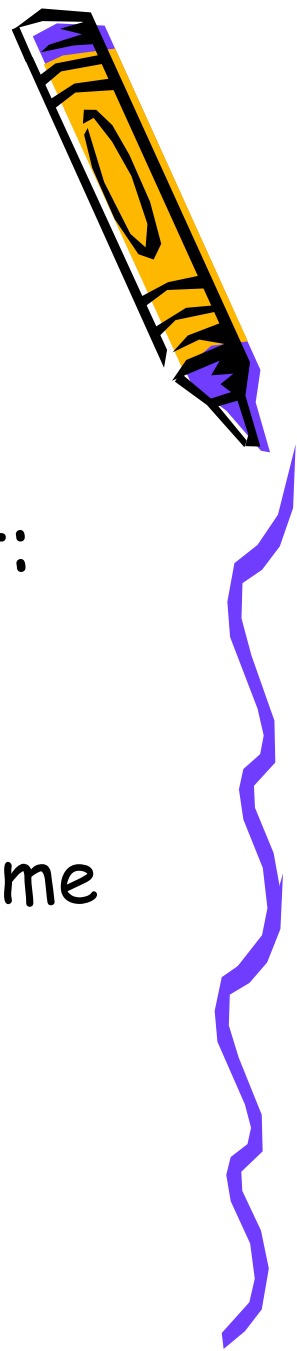
- Attach fidget tools to:
 - Body/clothing: necklace, pinned to shirt, hooked on belt-loop, bracelet
 - Desk or Chair: bungee or theraband around desk/chair legs, velcro strip on/under desk to run fingers along
 - Pencil: erasers, pencil toppers, rubber bands, textured grips, glued on textures (sand paper, turf grass)

Successful Implementation



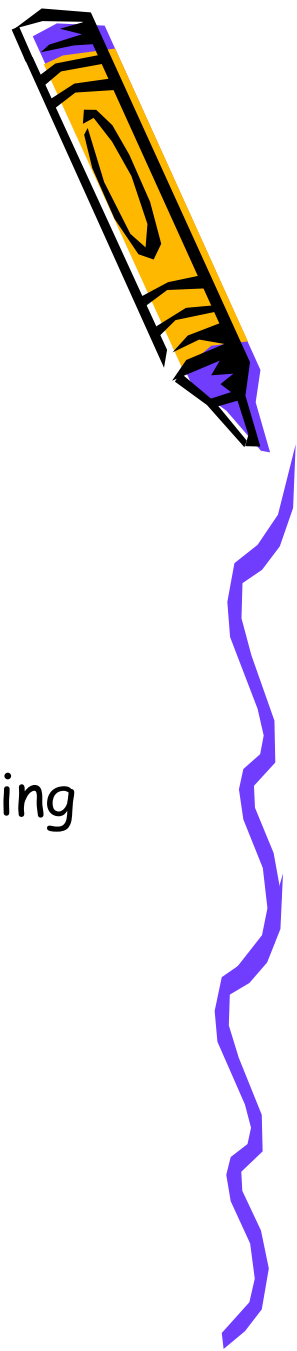
- Consider the most typical, culturally acceptable, and low-tech options that can meet the student's needs:
 - Paper clips
 - Pliable erasers
 - Stress balls
 - Pencil fidgets
 - Doodling
 - Getting a drink of water
 - Classroom "chores"

Successful Implementation

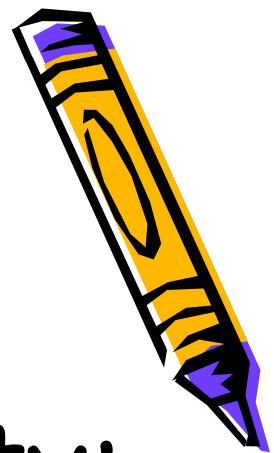


- Sensory strategies must “fit” the environment as well as the student:
 - Developmentally
 - Socially
 - Compatible with teacher's values, frame of reference, sensory processing
 - Classroom routine
- Monitor over time: give it a chance/trial and modify as needed

Favorite Pieces of School Equipment



- Weighted vest/blankets
- Beach balls any size
- Sit-n-spin
- Super large soft blocks
- Trampoline
- Tactile Box
- Scooterboard
- Chewy
- Inner Tubes
- Cloth tunnel
- Therapy ball for sitting
- Simple climbing structure
- Balance beam
- Open Tunnel
- Spandex
- Therapy Putty, shaving cream
- Bubbles
- Soft mats
- Bean bags/pillows
- Tent
- Parachute



"A teacher affects eternity;
he can never tell where his
influence stops."

- Henry Adams

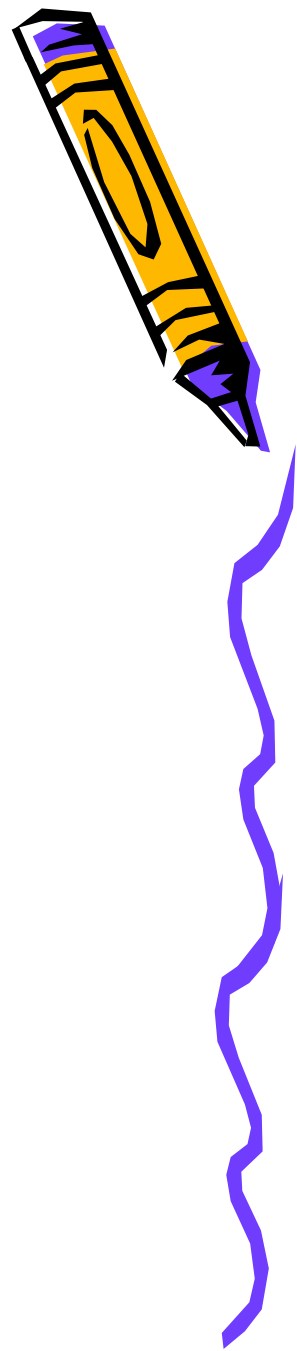


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