

SENSORY PROCESSING

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Growth and Development:

Occurs through interaction with one's environment during every day activities

1. Interest and motivation in the environment and activity
2. How meaningful and purposeful is that activity to the child
3. Environmental affordance: Is the activity so the child / adult is successful in doing the activity.

Purpose of Sensory Motor Processing related to the Daily Occupations of a Child:

1. Exploring: Investigating and feeling comfortable in one's environment
2. Social Play / Organization of Behavior: Play promotes typical development. Ability to sustain eye contact, listen to others, initiate and sustain communication with peers and adults, and identify own interest and goals. Accept winning and losing, maintain personal space, respond to limits, and respond to transitions.
3. Self Care: Motor skills to execute self-care skills rely on sensory discrimination.
4. School work: Self-regulation and attention require higher levels of processing. Motor Skills are needed to execute skill tasks.

Movement:

School Significance When Challenges Are Present

1. Fearful of Movement: these children over react to movement. They prefer to be sedentary and avoid playground equipment. They can become extremely alarmed when feet leave the ground or the head is tilted back.
2. Seeks Movement: These children are always on the go. Movement appears to be disorganized and non-purposeful.
3. Poor spatial awareness: falls out of the chair, trips over own feet, uncoordinated movement, etc.
4. Poor balance (both sitting and standing) and equilibrium responses
5. Poor postural background movements in gross motor activities (i.e. catching a ball when thrown off center).
6. Poor muscle tone
 - Limited co-contraction of opposing muscles for stability at the neck, trunk, and shoulder.
 - Scapular winging and trunk sag when bearing weight onto the arms.
 - Hyperextension at the elbows and finger joints.

Activities to Help:

- Popcorn game (play music, have children wiggle around)
- Bouncing around
- Out door play (swings, teeter totter, slides, etc.)
- If a child is not interested in playground equipment, encourage him / her to participate in it.
- Playing on larger therapy balls, scooter boards, etc. with supervision

- Calming Vestibular Activities (slow rhythmic movement, linear slow swinging, slow rocking in a rocking chair, etc.).
- Swings
- Rotating in an office chair
- Lying and rolling on a large therapy (stomach, back, and sitting)

Body Awareness

School Significance When Challenges Are Present

1. A student with poor body awareness may have difficulty knowing where his/her body is in relationship to objects (i.e. scissors, pencil, paper).
2. This student may frequently break toys, exert too much pressure when putting things together or pulling things apart.
3. Difficulty with motor skills because he/she does not know how to control movement.
4. Poor postural Stability: Muscle tone, strength, endurance, balance, coordination, and trunk stability.
5. Poor fine motor coordination because he/she has difficulty in feeling exactly where the arm, hands and fingers are.
6. This child may appear sloppy, clumsy, or have disorganized personal belongings.

Activities to Help:

- Deep pressure purpose is to calm and organize oneself (self-regulation). Deep pressure and “heavy work” activities (against resistance or gravity) provide a great deal of proprioceptive input. This could include having the student lift, push, pull, hang, tug, or carry. Increasing this input throughout the day may help him organize and increase his attention and ability to focus. The following are some suggestions of activities that provide proprioceptive input:
- Perform activities that require weight bearing, pushing, and pulling (i.e. animal walks, wheelbarrow walks, chair push-ups, doing schoolwork on the floor on stomachs, etc.)
- Jump up and down
- Move heavy objects with hands (i.e. carry in groceries or carry laundry basket).
- Move objects with feet (play a game to push box across room with feet)
- Play tug-of-war
- Body Stretches (i.e. yoga positions)
- Squishing self between pillows
- Sitting in enclosed spaces (i.e. small play tent, tunnel)
- Clay, play dough, or “theraputty”: could squish, pull, roll, and/or pound.

Tactile System

School Significance When Challenges Are Present

If a child has difficulty interpreting touch he/she may be hypersensitive or hyposensitive to touch.

1. The hypersensitive (tactile defensive) child may appear aggressive in his interaction with others.

- He/she may avoid activities that cause tactile discomfort (art, getting dirty while playing, etc).
- Difficulty standing in line
- Difficulty sitting during circle time
- Hits other children (protective response)
- Dislike lunch (may be too hot or too cold)

2. The hyposensitive child may be unaware of being touched and not react normally to painful experience.

- Self abusive behavior
- Likes extremes of hot or cold

Activities to Help:

- Art activities
- Play with different textures (finger paint, rice / bean bowls, string different shapes of macaroni and have child reach into bowl to retrieve shapes).
- Introduce to slimmy / rough / in-between textures (great for science), etc.
- Make play doh
- Circle games (hot potato, telephone, etc.)
- Tag

Praxis (Motor Planning)

Definition: Motor planning is the ability in which we figure out how to use our hands and our bodies to do skilled tasks. It is believed that certain motor skills are genetically programmed (i.e. walking) and others are learned (i.e. using an utensil to feed self or write). Motor skills evolve as a direct response to sensory input from the environment (i.e. an infant turning his head to rattle).

School Significance When Challenges Are Present

1. If a child is dyspraxic, he will appear clumsy, uncoordinated, and have difficulty in learning new motor tasks.
2. Poor sequencing, imitation, problem solving, timing / rhythm

Activities to Help:

- Obstacle courses (sequencing)
- Simon Says (imitation): Start with imitations of simple symmetrical movements, and progress to asymmetrical and crossed positions. Gradually increase expectations for precision. Take turns to keep it fun.
- Follow the Leader: Take turns. Use novel movements and movements which require careful planning and placement to get over, under, around and through obstacles.
- Try unfamiliar movement sequences when appropriate, such as jumping with feet apart, together, or walking with one leg crossed over the other as each step is taken, or alternately walking on heels, toes, etc.
- Give directions with visual demonstrations
- Break up the number of steps to do an activity.

Movement Breaks:

1. Incorporate movement breaks throughout the day.
2. Movement breaks depend on each student.
 - Some students may need a 1-2 minute movement break every 5 minutes
 - Some students may not need a movement break for 30 minutes or longer.
 - For students who can really attend (i.e. high school student), I do recommend a movement break at least once every 45 movements.
3. If a child is getting restless they need a movement break.
4. Give choices
 - Some kids you, can just ask: “what do you want to do”
 - Some kids you may give 2 to 3 options (do you want to do _____ or _____)
 - Use your phone to take pictures of activities (i.e. non-verbal children, younger children, etc.). Then have child select activity his / her choice from 1 to 3 pictures.
 - Be strategic in choices you offer (especially if child always picks same choice).
5. See above activities for ideas. Don't offer TV or Screen Time as break
 - Have the child move their entire body.
 - Have the child use their hands to explore and play. Do in standing at table, sitting on floor, outside, etc.

My Favorite Websites:

<https://theinspiredtreehouse.com/occupational-and-physical-therapy-home-program-activities/>

Provides fine motor, handwriting, visual motor / visual perceptual, and sensory (motor) processing.

<https://www.lwtears.com/programs/distance-learning>

Handwriting Without Tears and Typing without Tears. They are offering free online resources through July 31, 2020.