Head to Toes: A Holistic Approach to Writing Readiness

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The Data

• 2017-2018 Ohio Kindergarten Readiness Assessment reported 58.6% of children are entering kindergarten NOT demonstrating readiness. That’s 68,505 children.

(Ohio Department of Education, 2018)
In 2017-2018.....

<p>| | | |</p>
<table>
<thead>
<tr>
<th></th>
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</thead>
<tbody>
<tr>
<td>Stark</td>
<td>61.1%</td>
<td>Not demonstrating</td>
</tr>
<tr>
<td>Summit</td>
<td>59.1%</td>
<td>Not demonstrating</td>
</tr>
</tbody>
</table>
### More Specifically

<table>
<thead>
<tr>
<th>County</th>
<th>Total Enrolled 2017</th>
<th>Not Demonstrating</th>
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</thead>
<tbody>
<tr>
<td>Summit</td>
<td>4967</td>
<td>2930</td>
</tr>
<tr>
<td>Stark</td>
<td>3801</td>
<td>2318</td>
</tr>
<tr>
<td></td>
<td></td>
<td>5,248</td>
</tr>
</tbody>
</table>
What do we know?

July 2018 –

Relationships between Motor Proficiency and Academic Performance in Mathematics and Reading in School-Aged Children and Adolescents: A Systematic Review

(MacDonald, Milne, Orr, & Pope, 2018)
Occupational Therapy

• What do we do?
  • Support function from a holistic point of view in any occupation
    • Client Factors: Motor skills, process skills, social interaction skills
    • Performance Patterns: Habits, Routines, Rituals, Roles
    • Context: Cultural, Personal, Temporal, Virtual
    • Environment: Physical and Social

(American Occupational Therapy Association, 2014)
Person-Environment-Occupation-Performance
Review of Developmentally Appropriate Skills
# Writing Expectations By Age

<table>
<thead>
<tr>
<th>Age</th>
<th>Expectations</th>
</tr>
</thead>
<tbody>
<tr>
<td>2-3</td>
<td>Imitate circular, vertical, horizontal and intersecting</td>
</tr>
<tr>
<td></td>
<td>strokes</td>
</tr>
<tr>
<td></td>
<td>Uses one hand consistently in most activities</td>
</tr>
<tr>
<td></td>
<td>Hold crayon with thumb and finger (not fist)</td>
</tr>
<tr>
<td>3-4</td>
<td>Draw a circle without a model</td>
</tr>
<tr>
<td>Age 4-5</td>
<td>Age 5-6</td>
</tr>
<tr>
<td>---------</td>
<td>---------</td>
</tr>
<tr>
<td>Imitating square</td>
<td>Copying triangle, right and left diagonals, x shape</td>
</tr>
<tr>
<td>Copying cross, square, some letters and numbers</td>
<td>Printing own name</td>
</tr>
<tr>
<td>May be able to write own name</td>
<td>Copying most capital and lowercase letters</td>
</tr>
<tr>
<td>Drawing a recognizable face with eyes, nose, mouth</td>
<td>Drawing a person with at least 6 body parts</td>
</tr>
<tr>
<td>Drawing a basic stick figure with 2-4 body parts</td>
<td>Coloring inside a circle and filling it at least halfway</td>
</tr>
</tbody>
</table>
What building blocks and fundamental skills are necessary to develop writing readiness?
From the Top

• Cognitive Abilities
• Executive Functioning Skills
• Motor Planning Skills
• Eye Hand Coordination Skills
• Visual Perceptual Skills
• Sensory Processing Skills
• Motivation
Gross Motor Development

Proximal to Distal Development

Core Strength and Postural Stability

Upper Body Strength

Wrist stability and Extension

Crossing Midline
Importance of Good Sitting Posture

Start with Stability

In therapy we talk about the **90-90-90 rule**. This means that when seated at a desk, we want to ensure the following:

- Feet flat on the floor 90 degrees at ankles
- Knees bent at 90 degrees
- Hips at 90 degrees
Fine Motor Skills: Hand Development

- Hand strength
- Development of the palmar arches
- Hand dominance
- In-hand manipulation skills
- Hand division
What happens when this development has not occurred?
Red Flags

- Poor Posture during writing tasks
- Inefficient Pencil Grasps
- Poor Writing Endurance
- Muscle Soreness
- Pencil Pressure
- Difficulty controlling the pencil
- Difficulty coordinating both hands together for two handed tasks
- Poor upper limb strength
- Difficulty coloring within line
Intervention
Gross Motor Warmups

1. Core Strength Exercises-promotes postural stability

2. Crossing Midline Exercises-accesses crossing the visual, auditory and tactile midline (cross crawls)

3. Deep Breathing-oxygenates the brain for optimal brain function (smell the flowers – blow out the candles)
Explore grasps (pencil grips, short crayons/pencils, ball pencils, pom poms, pennies)

Strengthening activities to promote hand strength and function (theraputty, tweezers, pop cubes)
Writing Activity

1. Posture/Positioning
2. Grasp/Grip
3. WAIT for instructions
Write

• Happy Thanksgiving
• Happy Birthday
• Great Job
• Happy
• Sad
感恩节快乐
生日快乐
太棒了
高兴
难过
Wrap-Up

Never a one-size fits all

Use OT as a resource

Encourage students to experiment with what works for them

Make it a whole class activity


Questions?
IDEAS FOR IMPROVING PRINTING SKILLS:

Date: ____________________________

Student name: ______________________

The following are suggestions for activities or games to help improve a child's printing skills. These are meant to be enjoyable activities. A child should never be forced to participate in any of these activities. Have fun!

- Have child practice letters using Magnadoodle™, a salt tray (cookie tray filled with salt), sidewalk chalk, popsicle sticks, cooked spaghetti noodles, foil board (foil wrapped around a sturdy piece of cardboard) with a “popsicle stick” pencil, Wikki Stix™, etc.
- Use a sheet of sandpaper under writing or coloring paper to provide sensory feedback for children who use inappropriate pressure on pencil or crayon.
- Create your own “space man”: Draw an astronaut on a popsicle stick and have child place stick between words when writing sentences to assist with correct spacing. Other ideas to promote spacing include using wooden coffee stirrers, stickers, mini M & M's™, small stamps (such as stamps on the end of markers), child’s finger, another pencil, etc.
- To promote correct line placement: On three line paper, color above the dotted line with a blue highlighter for the “sky”, color below the dotted line with a green highlighter for the “grass”, and refer to below the solid baseline as the “dirt”. Have the child learn what categories the letters are in. The “sky letters” include b, d, f, h, k, l, t. The “dirt letters” include p, j, q, y. The “grass letters” include a, c, e, i, m, n, o, r, s, u, v, w, x, z.

__________________________________________  __________________________________________
Occupational Therapist:                    }

____________________                       ______________________
Copyright © 2007. All rights reserved by L. Kontos, OT/RL and N. Tissler, OT/RL
Published by Stenotom Educational Publications, Inc.
IDEAS FOR IMPROVING SENSORY PROCESSING SKILLS:

Date: _____________________________

Student name: _______________________

The following are suggestions for activities or games to help improve a child's sensory processing skills. These are meant to be enjoyable activities. A child should never be forced to participate in any of these activities. Have fun!

- Make cookies. Have child help make cookies and then decorate with frosting and sprinkles.
- Animal walks: For example, crab, bear, or kangaroo.
- Cotton ball races: blow cotton balls with straws.
- Bubbles: have child blow and poke bubbles with finger.
- Shaving cream: make hand prints, shapes or letters.
- Hot dog: roll child in blanket and add ingredients by applying firm pressure all over their whole body.
- Swing child in blanket.
- Pillow sandwich: use large pillows or beanbags to "squish" child between them. You can have child participate in a fine motor activity while doing this or do this as a stand alone activity.
- Blow toys: whistles, party noisemaker, kazoo, harmonica, etc.
- Wall push-up's and wheelbarrow walks: have child do these before participating in a structured activity to help organize their sensory system.
- Playground: swings, monkey bars, and climbing on equipment.
- Move 'N Sit cushion: this allows child subtle movement while seated at desk.

Occupational Therapist: ____________________________________________

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Keeping Calm in the Classroom: Readiness Exercises

The following exercises may be completed as a class or independently by individuals, given adult cues to use the strategies when needed. They are quiet exercises that can be completed at a desk or when sitting on the floor during class lessons with minimal disturbance to other students in the vicinity. These exercises offer deep pressure and heavy work to the joints and muscles, which can have a calming effect on the nervous system and facilitate improved focus.

1. Palm presses - Place palms together in front of chest with elbows bent and fingers pointed towards the ceiling. Press hands together firmly to the count of 10 (encourage child to count silently in their head).

2. Hand pulls - Bring hands together at chest level with elbows bent. Turn one hand towards the ceiling and the other towards the ground. Curl the fingers and lock them together (see illustration). Pull arms apart with steady force for a count of 10 while maintaining fingers in the locked position.

3. Chair push-ups and pulls - While seated in a classroom chair, grasp both sides of the chair and lift the body off the chair. Ensure students are using their arms to perform this lift without using their legs to assist. Complete one set of 10 push-ups. Next, grasp the sides of the chair and pull the body into the seat for the count of 10. Note: The push-up component of this exercise can also be completed while seated on the floor.

4. Desk or wall presses - Place hands palm down on desk while seated at desk. If standing, position feet at arm's length from the wall and place palms against a wall at shoulder level. Press down on the desk or into the wall with as much force as possible while counting silently to 10.

5. Body hugs - Cross forearms across chest, grasping the opposite arm. Squeeze or hug arm towards body using as much force as possible, maintaining the hug for the count of 10.

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67 ways to a peaceful and productive classroom

yoga4classrooms®

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