

# Supporting children with autism, ADHD, dyslexia and other neurological disorders through occupational therapy

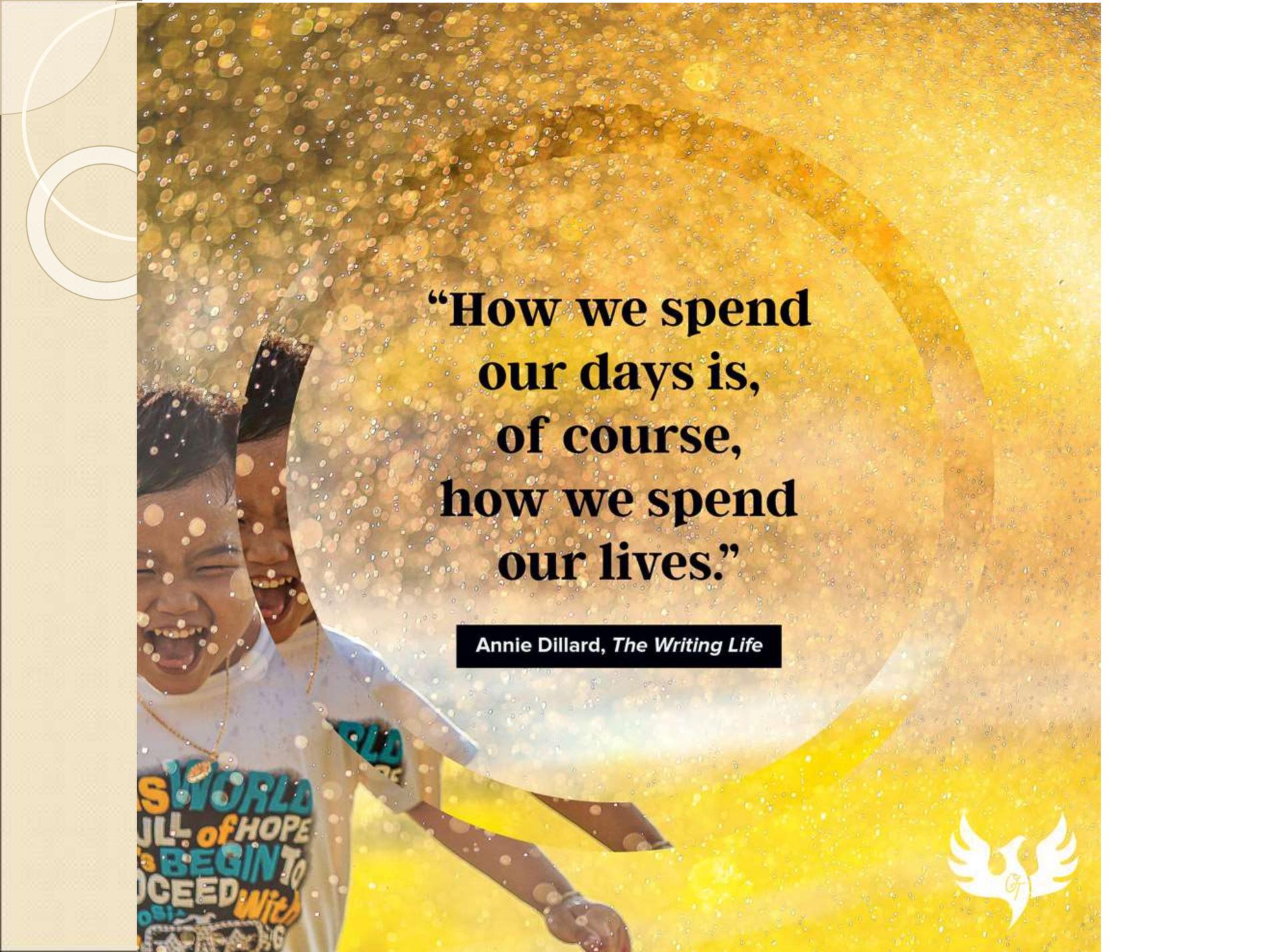


# What is occupational therapy?



- Occupational therapy is a client-centred health profession concerned with promoting health and well being through occupation.
- The primary goal is to enable people to participate in the activities of everyday life.

(World Federation of Occupational Therapists 2012)



**“How we spend  
our days is,  
of course,  
how we spend  
our lives.”**

Annie Dillard, *The Writing Life*



## **Pediatric Occupational Therapy**

- **What is children's "occupation"?**
- **Occupational therapy for children aims to equip them with autonomy and independence to meaningfully engage in everyday activities**
- **OT develops, restores, maintains or modifies daily self-care and play skills**
- **OT contributes to compensating impaired functions by adapting the home, school and external environment**

# Which disorders can OT help?

- Autism spectrum disorder
- Cerebral palsy
- Spina bifida
- Hydrocephalus
- Down syndrome
- Attention deficit hyperactivity disorder (ADHD)
- Learning disabilities, incl. dyslexia, dyspraxia and others
- General developmental delays
- Problems of coordination and balance
- Problems with attention and concentration
- Social and emotional traumas leading to impaired functions

# Sensory integration therapy



- Developed by Jean Ayreas
  - Based on Sensory Integration Theory
  - Sensory integration refers to the nervous system as it responds to incoming sensory information from both the outer world & inner sensations

# Understanding how the brain works and the importance of sensation



- ▶ Most functions of the CNS are related to processing & organising sensory input
- ▶ Sensory information is used for body posture & movement emotions, thoughts, memories, and learning
- ▶ Sensory integration is a neurological process in which sensory impressions arising from one's own body and the environment are arranged, enabling a person to use their body meaningfully within the environment

# Sensory Processing : A Neurodevelopmental Perspective

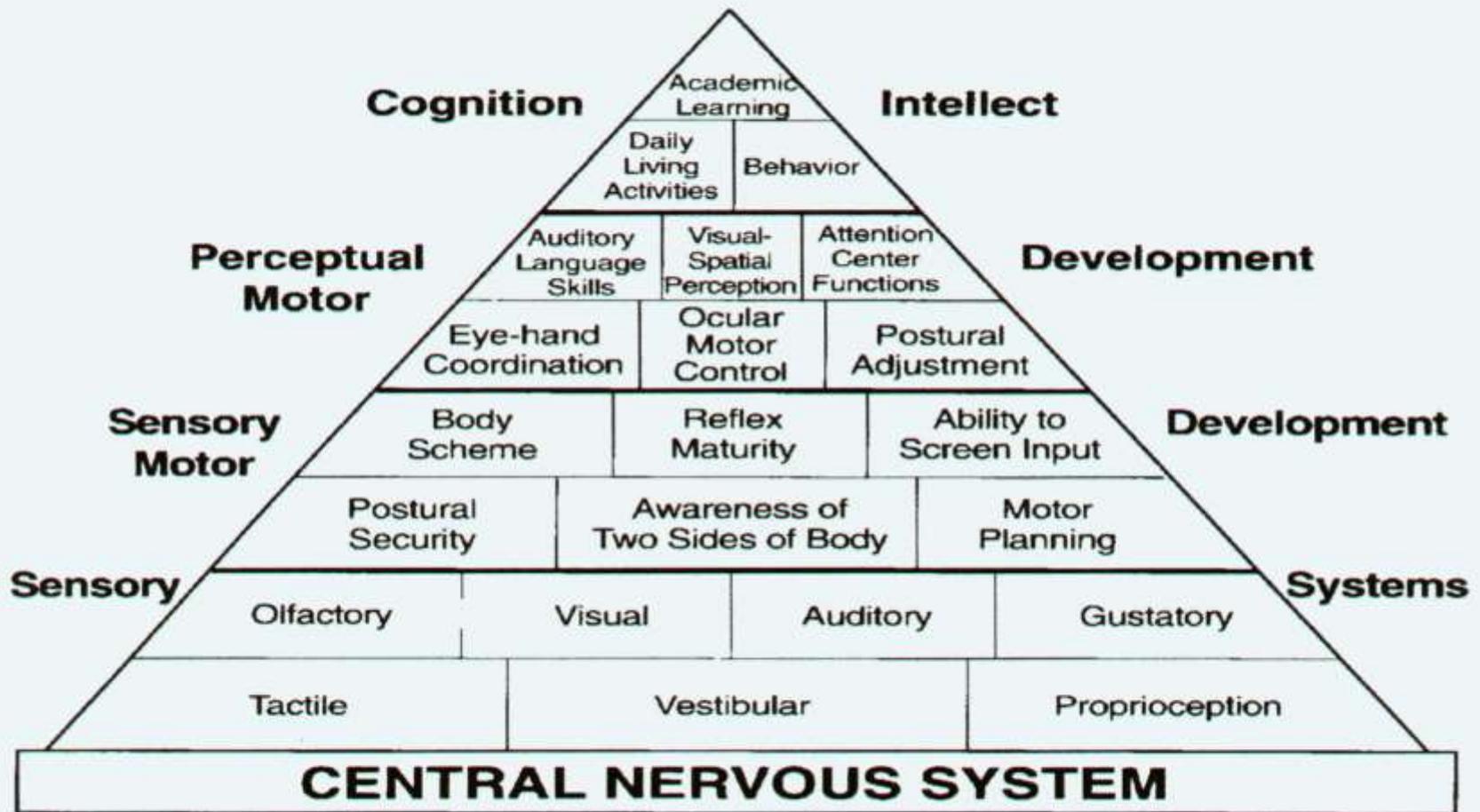


Figure 5. Pyramid of Learning. (Williams & Shellenberger, 1-4)

Williams, Mary Sue and Sherry Shellenberger. "How Does Your Engine Run?" A Leader's Guide to The Alert Program for Self-Regulation. Albuquerque, NM:TherapyWorks, Inc., 1996.

# Tactile Responses

- All Sense systems may respond in either Hypo / Hyper ways : Either Over-responsive or Under-responsive to sensory input



# Symptoms of sensory-integrative dysfunction

## Infancy

- Delayed motor development
- Asymmetry in body posture
- Reluctance to cuddle and be touched
- Severe sleep disturbance
- Problems with nursing, swallowing, drinking, eating
- Atypical reactions to harmless stimuli
- Hyper- or hypoactivity
- Excessive crying and irritability

## Preschool and school age

- Delayed speech development
- Clumsiness and poor praxis
- Regression in acquired skills
- Aggressive, fearful or unusual behavior
- Nocturnal enuresis
- Weak memory and lack of concentration

# Aims of sensory integration occupational therapy



Improving the child's ability to interact with objects and the constantly changing environment through:

- Normalization of sensory processing
- Change in the level of activity
- Improved attention
- Motivation as an "engine" for activities
- Improving motor planning
- Organising behavior



# Skills that occupational therapy can support

- Gross motor skills - walking, climbing stairs, cycling, sitting in correct posture, etc.
- Praxis and bilateral coordination
- Improving the fine motor skills - hold small objects, writing, handling scissors, etc.
- Self-care and self-help activities
- Focusing attention on specific tasks
- Building habits for self-control and self-regulation
- Cognitive skills, such as recognizing the difference between colors, shapes and sizes
- Communication and social skills, developing relationships with peers

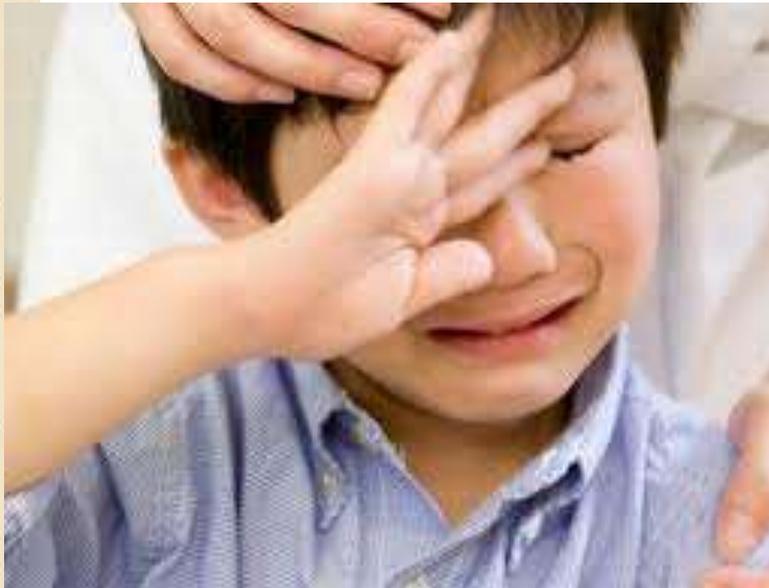
## Guiding principles of sensory integration therapy

- ▶ Sensory activities are essential to development
- ▶ Successful responses to challenges result in integration of the nervous system & behavioral organisation
- ▶ Learning complex skills & patterns is dependent upon consolidation of simple responses
- ▶ Greater motivation results in a child's persistence and improved function
- ▶ Therapy is grounded in play and is child-led
- ▶ Use of graded "just right challenges"
- ▶ Success is measured by improvements to responses to previously difficult challenges



# ENVIRONMENT: IMAGINATION & OBSERVATION

- Altering the environment to elicit a response
- Make the environment more functional
- Make the child more functional within the environment



# What Parents, Teachers & Caregivers Can Do For Sensory Integration Problems

Recognise the problem

Foresee emotional crises related to sensory challenges

Instead of punishment, remove disorganising stimuli and offer organising activities

Maintain discipline and social expectations; let discipline be of the sort that organizes the brain; be consistent

Accentuate the positive, support success and good self image

Control the sensory environment

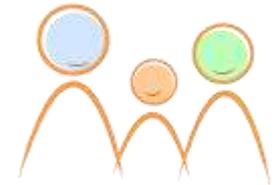
Help the child learn to play







Erasmus+



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Parenting Awareness for Young People



**Thank you for the attention!**