



# Teach Me The Way I Learn: Including Children with Autism in the Early Childhood Classroom

AWWA Inclusion Experts Series  
8 March 2025





**Hello!**  
**We are Janice and Tee Yi**

AWWA RESTRICTED



# Learning Outcomes

- 1) Participants will learn **practical strategies to support children with autism in early childhood classrooms**
- 2) Gain insight into fostering **inclusive early childhood environments**
- 3) Explore approaches to **promoting meaningful participation and social relationships**
- 4) Understand the **role of collaborative teaming among families and professionals** in supporting inclusion



# Through the lens of...



**Ethan**



**Cayden**



**Sophia**



# Topics for the session

- Understanding how children with Autism learn
- Three groups of strategies that support learning:
  - **Cognitive:** visual supports, cognitive-based strategies
  - **Sensory:** sensory processing strategies
  - **Affective:** co-regulation strategies
- Embedding strategies throughout the day in the preschool classroom
- Collaboration with families and EI services



# Our intentions (Disclaimer)

- We believe in transdisciplinary practice and wish to make universal strategies accessible to all educators but do not discount the importance of specialist work
- We wish to simplify complex profiles of students in order to illustrate the use of strategies but not to pigeonhole or stereotype children with autism



## **Ethan (5 years old)**



Has a new baby brother (5 month old), also lives with father, mother and helper

Speaks in simple sentences in English, mostly to adults (e.g. Can I go to playground?)

Able to read and write simple words

Struggles with changes in routines

Talks very loudly to friends and teachers

Wants to be first all the time

Attends K1 in a kindergarten 5 days a week for 4 hours each day

Needs several prompts to complete task, often needs an adult to sit next to him, otherwise he would run off to the learning corners

Loves all vehicle and transport-related things

Says that he likes friends but snatches their toys

Ends up playing by himself most of the time

Cries and screams non-stop once in awhile when things do not go his way



## **Cayden (6 years old)**



Only child, lives with mother and father. Grandmother is main caregiver

Mostly "roaming" around in the classroom but gets into safety issues (e.g. tripping over things, knocking into corners)

Loves bumping into things and people

Non-verbal, does not use words to express himself yet

Finds it hard to stay with the group, especially during large group time

Attends K2 in a full-day childcare, 5 days a week from 8 am to 5:30 pm

Spoils materials given to him (e.g. knocking down blocks, pulls books apart, throws pencils)

Likes alphabets and would sit down to interact with toys or materials with alphabets

Attends an EIPIC Centre on Tuesdays and Thursdays, 2.5 hours each time

Has a restricted diet of maggi noodles, packet drinks and cookies





## Sophia (5 years old)



Attends K1 in a half-day Kindergarten and goes to childcare after, 5 days a week, from 800 am to 5 pm

Only child, lives with mother and father. Grandmother is main caregiver

Generally well-behaved and participative in the classroom

Speaks in simple sentences with some use of conjunctions (e.g. and, but, so, because)

Able to read and write according to K1 curriculum level

Loves group games but only when she is the first to take a turn, and she breaks down when she loses

Appears to have intense emotions (jumps and laughs loudly when happy, cries and screams when upset)

Likes characters from "Frozen", and loves dressing up as a princess

The DS-Plus team (preschool-based service by EIPIC provider) supports her once a week for 2 hours each time, in the childcare centre

Has a balanced diet but takes time to try new foods



**Persistent deficits in social communication and social interaction across multiple contexts, as manifested by all of the following**

1. Deficits in social-emotional reciprocity,
2. Deficits in nonverbal communicative behaviors used for social interaction,
3. Deficits in developing, maintaining, and understanding relationships

**Restricted, repetitive patterns of behavior, interests, or activities, as manifested by at least two of the following,**

1. Stereotyped or repetitive motor movements, use of objects, or speech
2. Insistence on sameness, inflexible adherence to routines, or ritualized patterns or verbal nonverbal behavior
3. Highly restricted, fixated interests that are abnormal in intensity or focus
4. Hyper- or hyporeactivity to sensory input or unusual interests in sensory aspects of the environment

**A**

**Autism**

**S**

**Spectrum**

**D**

**Disorder**

- Symptoms present starting from early developmental years
- Symptoms cause significant impact in social, occupational or other areas of daily life
- Symptoms are not better explained by intellectual disability or global developmental delay



# Understanding children with Autism

- Stronger in visual processing than auditory processing
- Understands better when things are concrete
- Thrive on routines
- Communicates through verbal and nonverbal means
- May have difficulties reading social cues, intonation of voice and affect
- May have difficulties organizing or sequencing
- May have differences in processing sensory input



An iceberg floating in the ocean. The tip of the iceberg is above the water line, and the much larger part is submerged. The word "Behaviour" is written in red in the top right corner. The submerged part of the iceberg contains several terms in red and yellow text: "thoughts current", "circumstances", "discomfort", "feelings", "beliefs", "fears", "experiences past", and "values".

## Behaviour

thoughts  
current

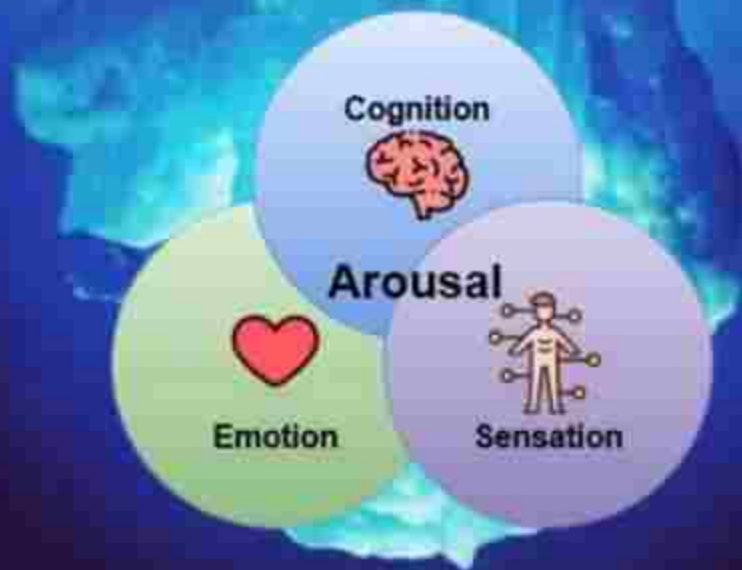
experiences  
past

circumstances

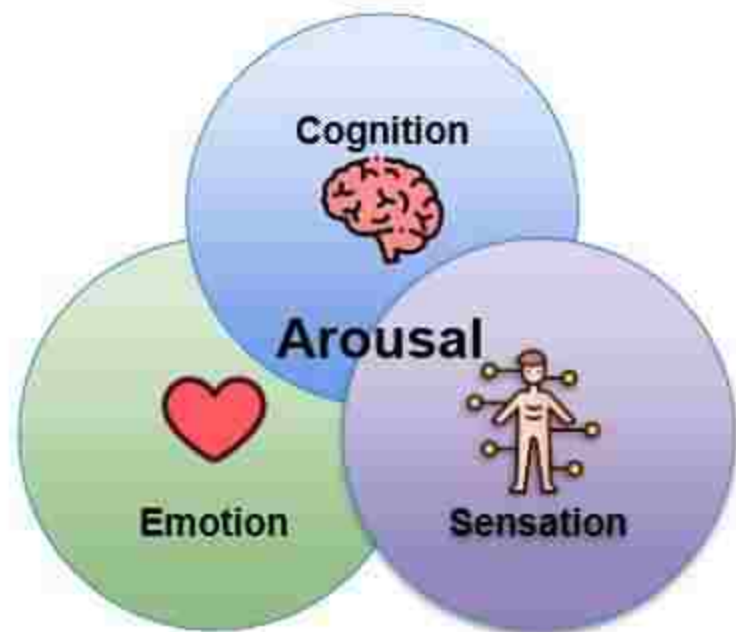
values

discomfort  
beliefs  
feelings  
fears

# Arousal as the foundation of our behaviour



# Arousal as the foundation of our behaviour



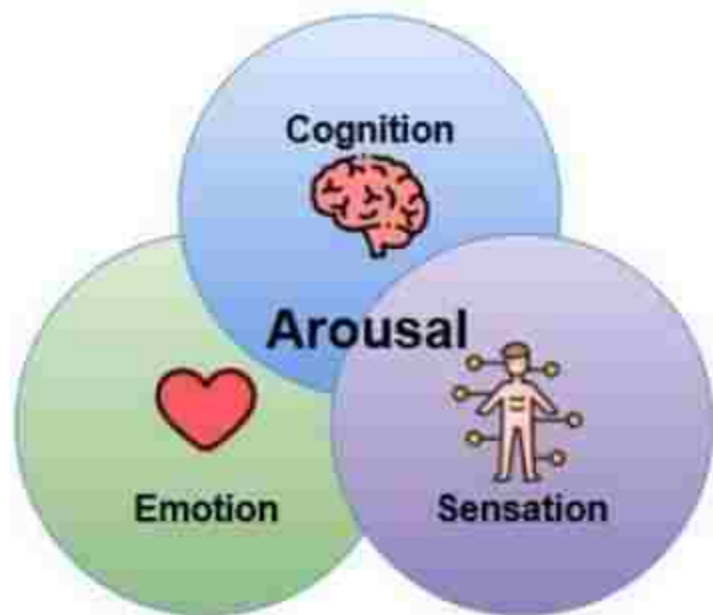
- Arousal levels tell us how alert we are
- Our nervous system needs to be at the right level of arousal to attend, focus and participate in activities
- Every activity or task demands a different level of arousal

**What drives your arousal level?  
Which would you consider your  
weakness? Your strength?**

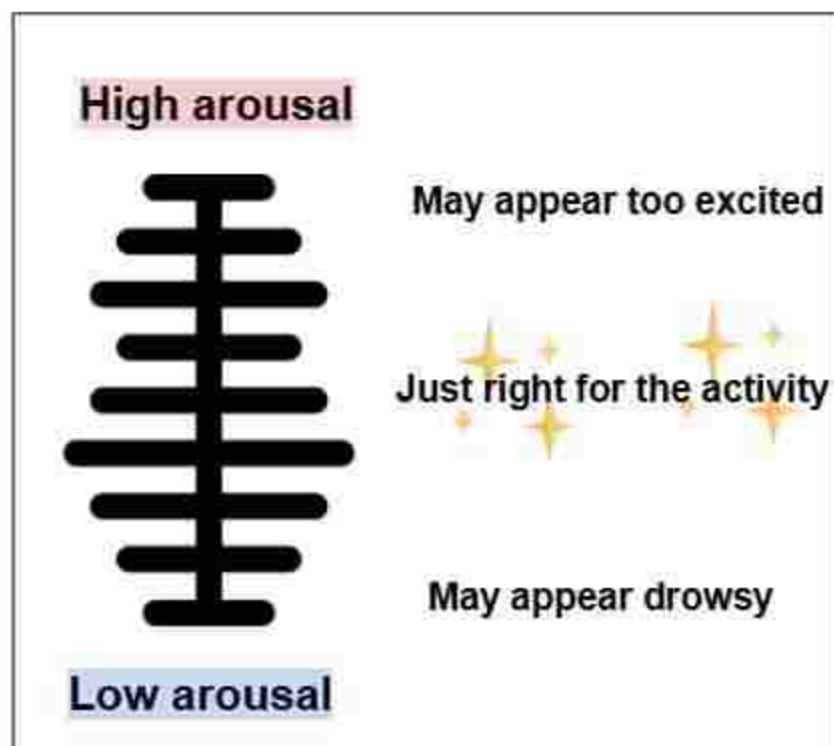
(Kimberly Barthel, 2012)



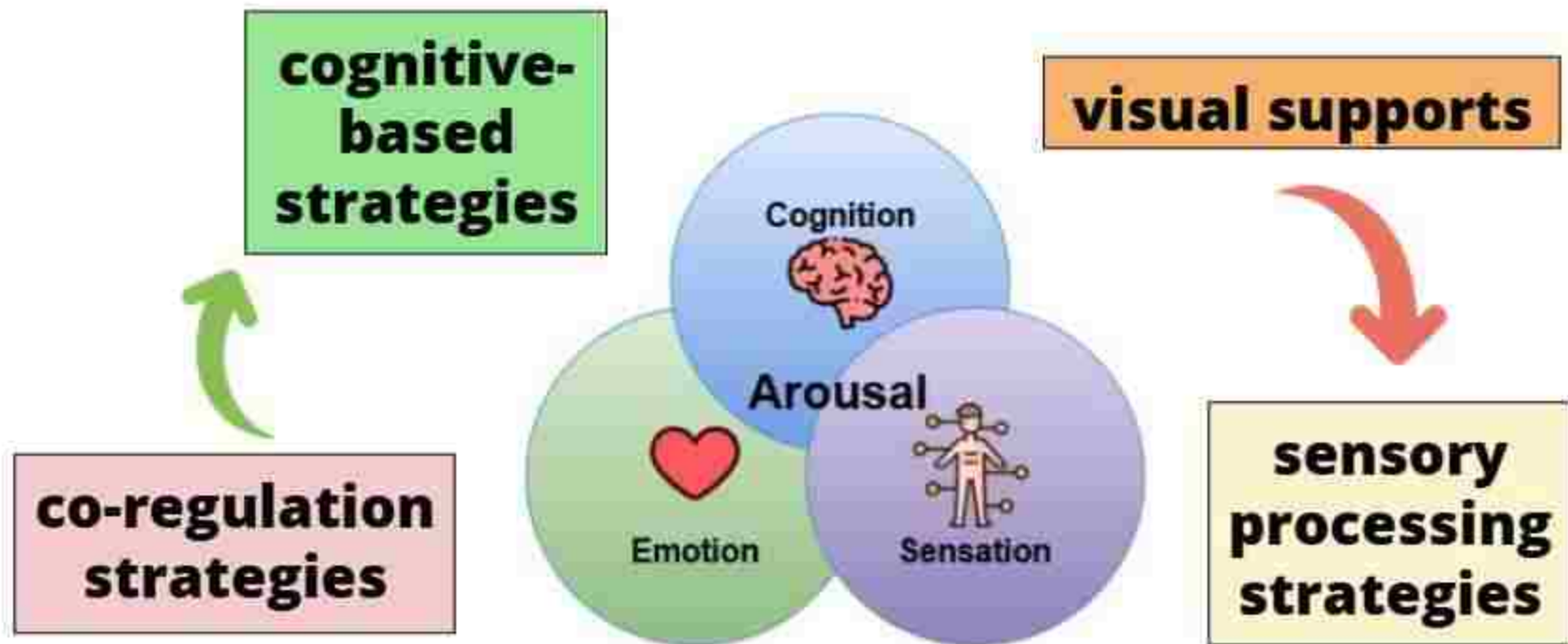
# Arousal as the foundation of our behaviour



(Kimberly Barthel, 2012)



# Three groups of strategies



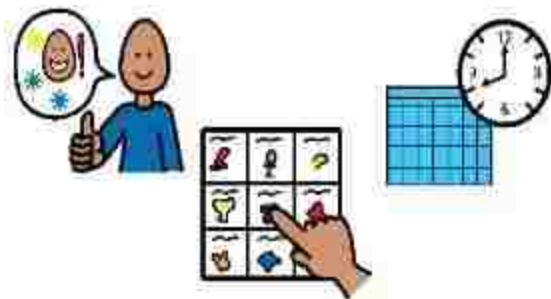




# Visual supports



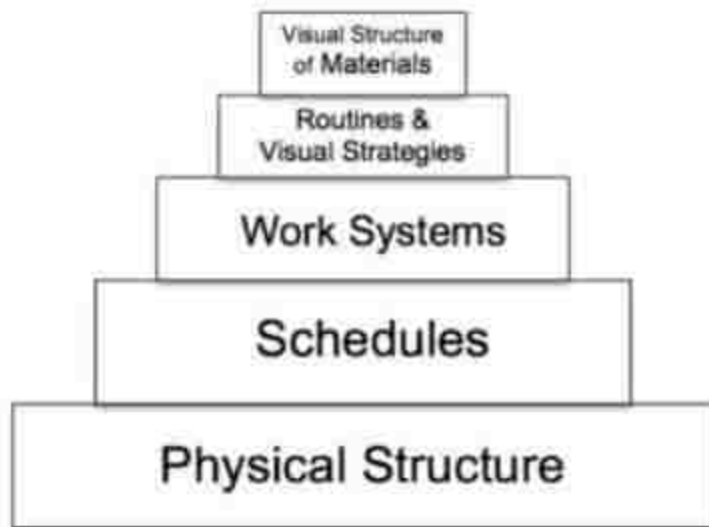
# Visual supports



- Visual supports refer to strategies that provide visual or concrete cues that tells us about an activity or routine
- The Treatment and Education of Autistic and related Communication-handicapped Children (TEACCH) or Structured Teaching is one of the intervention approaches that incorporates the use of Visual Supports
- Sufficient evidence supports the use of Visual Supports in education and intervention of children with ASD (CPCHS, 2023)
- Visual strategies have been used in facilitation of language and communication development, as well as in proactive behaviour management



# Levels of structure



Structured Teaching (TEACCH)

- Understanding structure behind any setting is key to
  - setting expectations
  - facilitate predictability
  - connecting who and what is involved
- With clear structure, all of us feel more secure
- Become more independent
- Participate more meaningfully



## Ethan (5 years old)



Has a new baby brother (5 month old), also lives with father, mother and helper

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# Ethan

## School Routines and Activities



Story Time

Snack Time

Go Home

Play Time

Hello Time

Art and Craft

Work Time



# Structuring the Environment

Structuring the environment helps us understand

- what activity is occurring at each area
- assists us to anticipate the requirements of each setting
- helps us predict what will happen on that day



# Structuring the Environment

Use furniture to define learning areas



# Structuring the Environment

Use placemats and visual labels





# Structuring the Environment

Use materials to cue students



# Structuring Time

Structuring time helps us understand “when” and “how long” an activity or lesson is

1. when is the next activity (transition cues)
2. sequencing two consecutive activities (first-then)
3. overview of segment of day or full-day (visual schedule)



# Object representation level

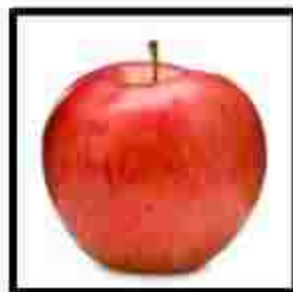
Actual  
Object



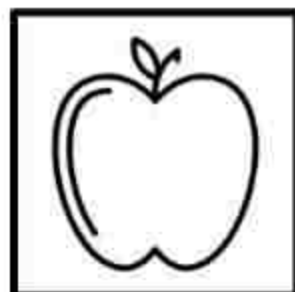
Symbolic  
Object



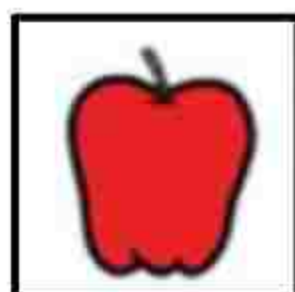
Photo



Line drawing



Picture symbol



Written word

apple



Most Concrete

Most Abstract

Easiest to  
understand

Hardest to  
understand



# Transition Cues

Using visual timers and transition songs



10 9 8 7 6 5 4 3 2 1



## Clean Up Song

Clean up, clean up everybody,  
everywhere!

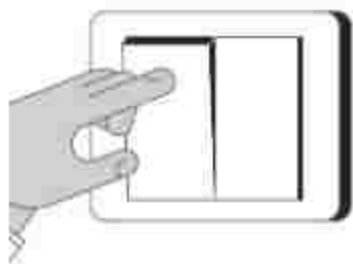
Clean up, clean up, everybody do  
your share!

The more we work together,  
together, together, the more we  
work together the happier we'll be!  
Because your friends are my friends  
and my friends are your friends!  
The more we work together the happier  
we'll be!



# Transition Cues

Using environmental and object signals



Turning off lights



Number of objects



Finished Basket



An object related to the next activity



Check Schedule Card



# Examples of Visual Schedules

First-Then  
Schedule



Half Day  
Schedule



Full Day  
Schedule



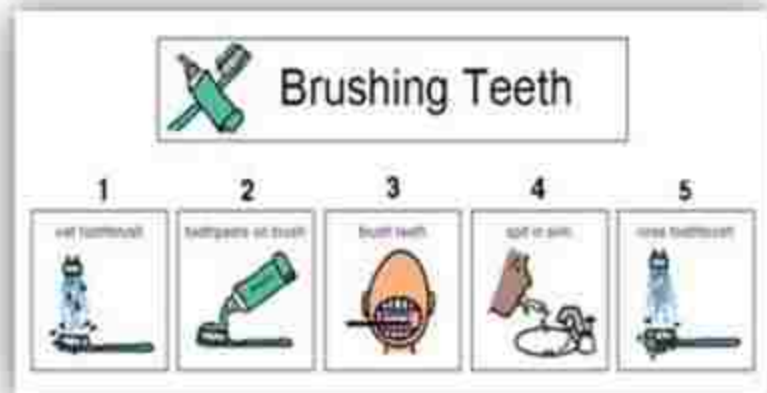
Group/ Class  
Schedule



# Structuring Activities and Routines

Structuring routines and activities help us understand

- the steps required to complete the routine or activity
- the organization and sequence of all the steps
- when the activity is finished

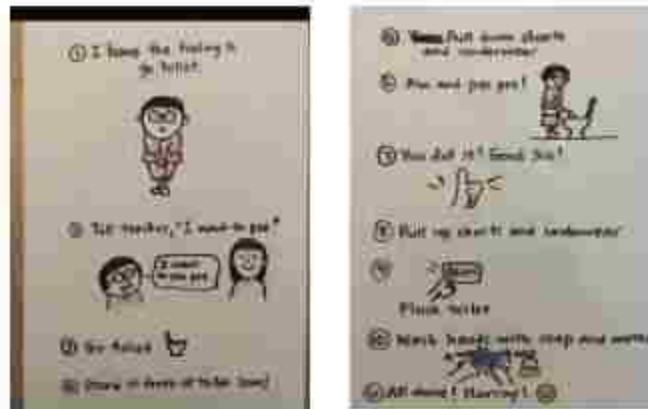


# Structuring Routines

## Hand Washing



## Toileting



*As children go through these routines daily, it gives them good opportunity to practice and master the skills*





# Structuring Activities



<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	
	<b>ART and CRAFT</b>		Finished
1	Take Materials		<input checked="" type="checkbox"/>
2	Make a sail		
3	Paint sail		
4	Wash hands		

Work Time



Art and Craft



# Augmentative Alternative Communication (AAC)

Visuals are also used to create AAC systems to support communication and participation in the classroom



Picture communication systems



# Augmentative Alternative Communication (AAC)



Activity boards



TD Snap high-tech AAC



# I learn better with **visual supports!**

**Structure  
Environment**



**Structure  
Time**

**Structure  
Routines**

**Structure  
Activities**

**Understand and  
express with the  
use of AAC**



# **Collaborate** with others to support me

Ask my EIPIC Teachers for a copy of visuals that work for me



Tell my daddy and mummy if there is an upcoming change so they can help to prepare me

Ask daddy and mummy for the things I like and dislike



# It's time for a 10 minutes break!

Visit our inclusion resource portal for more resources on inclusive education



Sharing AWWA Experiences and Materials



Understanding & Explaining Inclusive Education



Learning from International Practices



Self-Assessment Tools



Other Local Resources



Scan QR code to learn more about inclusion.



Videos

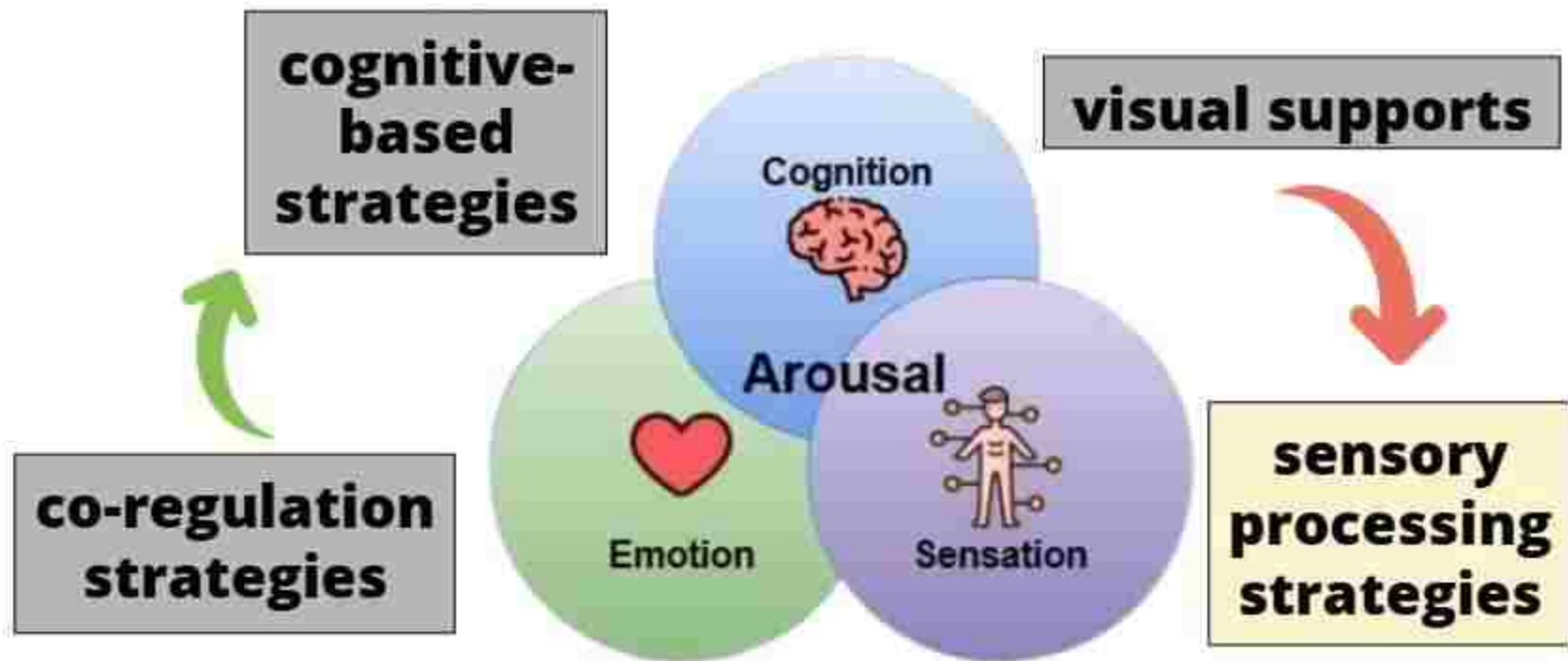


Printables



Blogs

# Three groups of strategies





# Sensory Processing Strategies

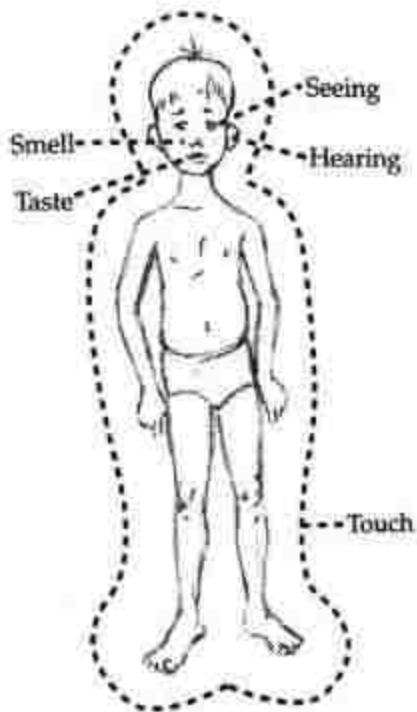




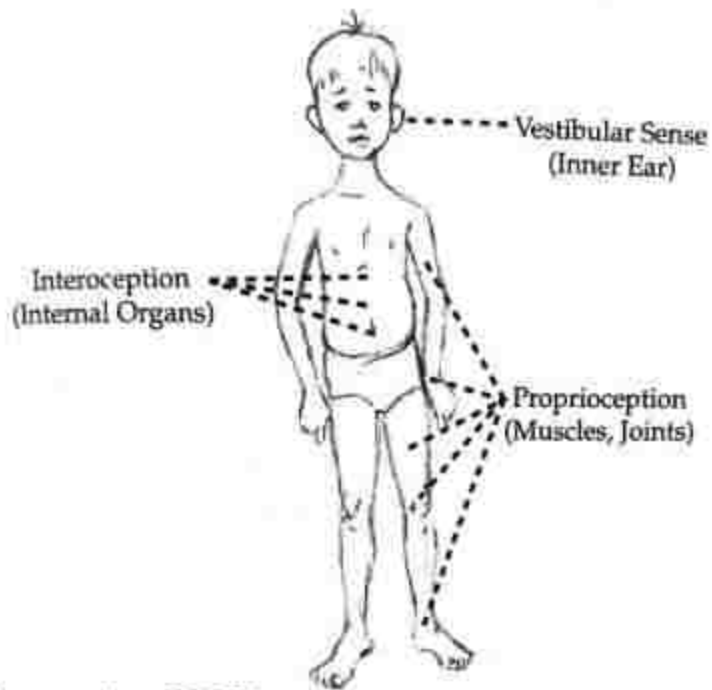
# Sensory Processing

Sensory processing is the normal neurological process of organizing sensations for our use in everyday life (Kranowitz, 2003)

*The External (Environmental) Senses*



*The Internal (Body-Centered) Senses*



(Kranowitz, 2005)



# Sensory Processing



## Over-responsive

(e.g. sensitive to people touching, smells, food textures/temperature, does not like clothes tag, gets motion sickness, avoids sand play, water play, paints, does not like climbing up the playground, lights are too bright, covers ears to block out sounds)



## Under-responsive

(e.g. is not aware that mouth is dirty after meals, "butter fingers", may not notice obstacles in his/her way, responds better to animated, loud voice/sounds, may enjoy extreme tastes without reaction)



# Sensory Processing



## **Sensory-craving**

(e.g. appears to want “more” of everything - digs through sand play, rummages through toys, overturns toys, chews on objects/own shirt, bumps into people, cannot seem to stop moving, loves hugs!, likes shiny, spinning, bright objects, loud sounds, likes to lick to taste objects that are not edible)



Only child, lives with mother and father. Grandmother is main caregiver

Mostly "roaming" around in the classroom but gets into safety issues (e.g. tripping over things, knocking into corners)

Loves bumping into things and people

Non-verbal, does not use words to express himself yet

Finds it hard to stay with the group, especially during large group time

## Cayden (6 years old)



Attends K2 in a full-day childcare, 5 days a week from 8 am to 530 pm

Spoils materials given to him (e.g. knocking down blocks, pulls books apart, throws pencils)

Likes alphabets and would sit down to interact with toys or materials with alphabets

Attends an EI/PIC Centre on Tuesdays and Thursdays, 2.5 hours each time

Has a restricted diet of maggi noodles, packet drinks and cookies



# Proprioceptive System



- 1) Proprioception tells us about our own movement and body position
  - a) where our body is in space
  - b) how our body parts relate to one another
  - c) how much and how quickly our muscles are stretching
  - d) how fast our body is moving through space
  - e) how much force our muscles are exerting

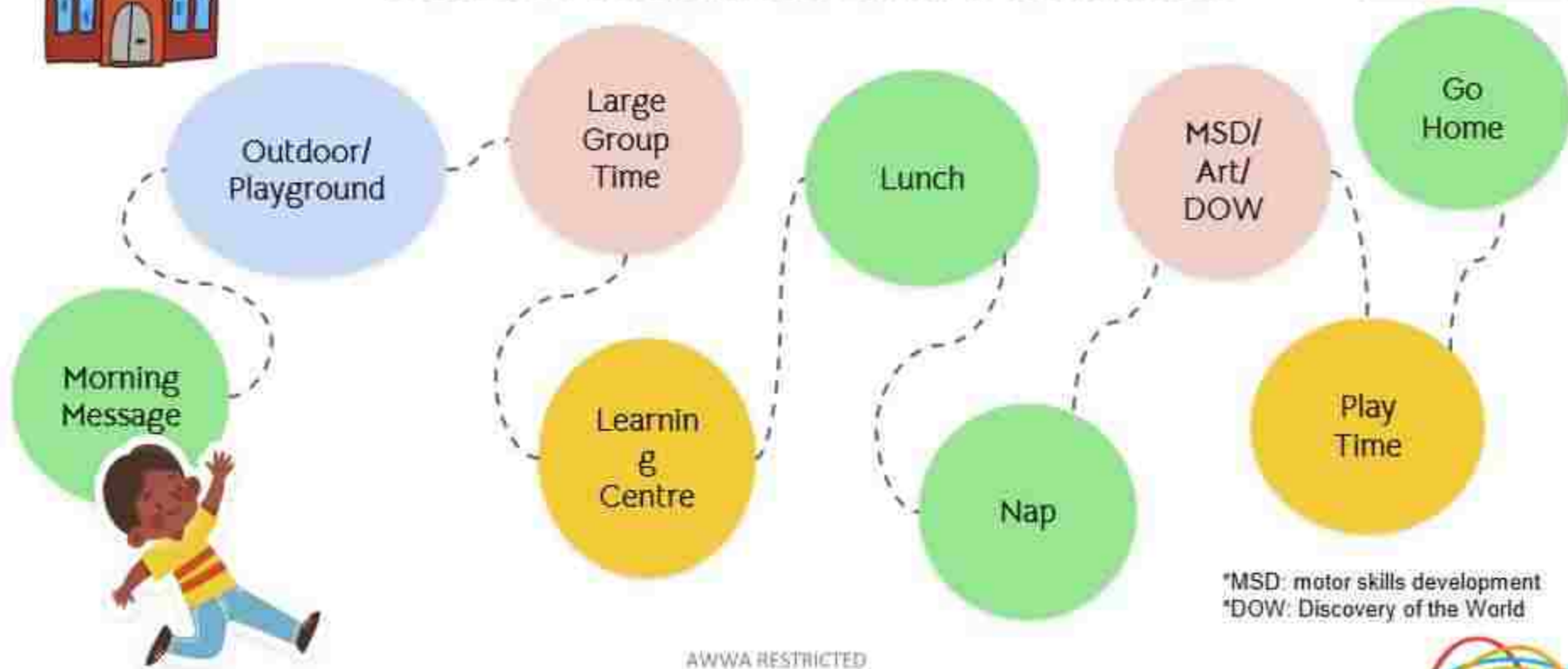
- 1) Proprioceptive input is **organizing** and it can be alerting or calming



# Cayden



## School Routines and Activities



# Activities that provide proprioceptive input

## 1) Incorporating exercises during outdoor time, at the playground or MSD and games

\*MSD: motor skills development

Pulling friend on wagon



Crawling (through tunnel)



Climbing



# Activities that provide proprioceptive input

## 2) Integrating use of equipment or tools into storytime, games, pre-writing time

Body Sox™ / Lycra activity



Scooter board relay as a pre-writing activity

Stacking foam blocks





# Activities that provide proprioceptive input

3) Embed within routines of the classroom, throughout the day!



Carrying books/help to distribute to friends, pushing books in wagon



Pouring activity/sensory play



Putting back/rearranging furniture, setting up cot for naptime



Wiping tables



Pushing doors open



# Activities that provide proprioceptive input

## 4) Play a game!



Wall push-ups!



Stand up while  
back to back



Body squeeze



# Activities that provide proprioceptive input

## 5) Help out in household or classroom chores!



Carrying laundry basket



Sweeping and mopping

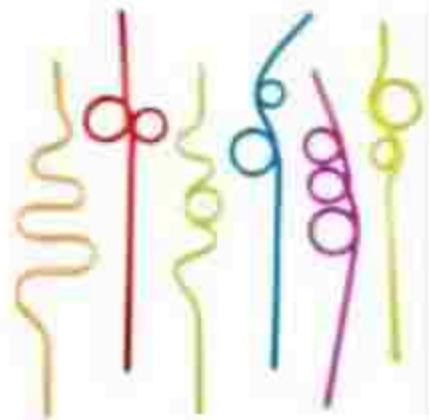


Changing bedsheets



# Activities that provide proprioceptive input

## 6) Oral-motor activities



Drinking from a straw

Providing crunchy or  
chewy food textures



# Sensory Processing



- 1) When in doubt, try proprioceptive input
- 1) Plan activities that provide proprioceptive input throughout the day and especially before activities that may be demanding for the child (e.g. large group time, work time)
- 1) Observe child's response to the input given
- 1) Be mindful of the complexity of the motor action required and response of the child especially in relation to fatigue



# I learn better **when my body is ready!**

**Just-right  
arousal level**



**Embed proprioceptive  
activities throughout the  
day**



# **Collaborate** with others to support me

Ask my OT for any helpful activities



Ask my daddy, mummy and grandma to involve me in household chores

**NO SCREEN TIME!**



## Sophia (5 years old)



Attends K1 in a half-day Kindergarten and goes to childcare after, 5 days a week, from 800 am to 5 pm

Only child, lives with mother and father. Grandmother is main caregiver

Generally well-behaved and participative in the classroom

Speaks in simple sentences with some use of conjunctions (e.g. and, but, so, because)

Able to read and write according to K1 curriculum level

Loves group games but only when she is the first to take a turn, and she breaks down when she loses

Appears to have intense emotions (jumps and laughs loudly when happy, cries and screams when upset)

Likes characters from "Frozen", and loves dressing up as a princess

The DS-Plus team (preschool-based service by EIPIC provider) supports her once a week for 2 hours each time, in the childcare centre

Has a balanced diet but takes time to try new foods





# Sophia

## School Routines and Activities



Outdoor/  
Playground

Literacy

Snack

MT  
(Mother  
Tongue)

Go  
Childcar  
e

Group  
Time

Learnin  
g  
Centre

Numeracy

Play  
Time



\*MSD: motor skills development  
\*DOW: Discovery of the World



Sophia returns to the classroom, saw another friend carrying the group's stationery tray to the table.....

Sophia stomped up to friend, screamed at her and cried out

**"BUT I AM THE GROUP LEADER TODAY!!!!"**

During Literacy, Sophia does not ask for permission to speak, instead she....

**...shouts** out the answer at the top of her voice quickly each time she wants to share an idea

At a paired work activity, Sophia wants to be the one cutting the paper and her partner wants it too!

Sophia cried and screamed

**"BUT IT'S MINE!!!!"**



An iceberg floating in a blue ocean under a blue sky. The tip of the iceberg is above the water, while the much larger part is submerged. The word "Behaviour" is written in red above the tip. Three white text boxes describe internal struggles: "Have difficulties understanding how my actions, words and feelings have an impact on others around me" on the left, "Struggles with perspective taking" at the bottom left, "Have difficulties managing own emotions" on the right, and "Have difficulties with flexibility and thinking of alternatives" at the bottom right.

## **Behaviour**

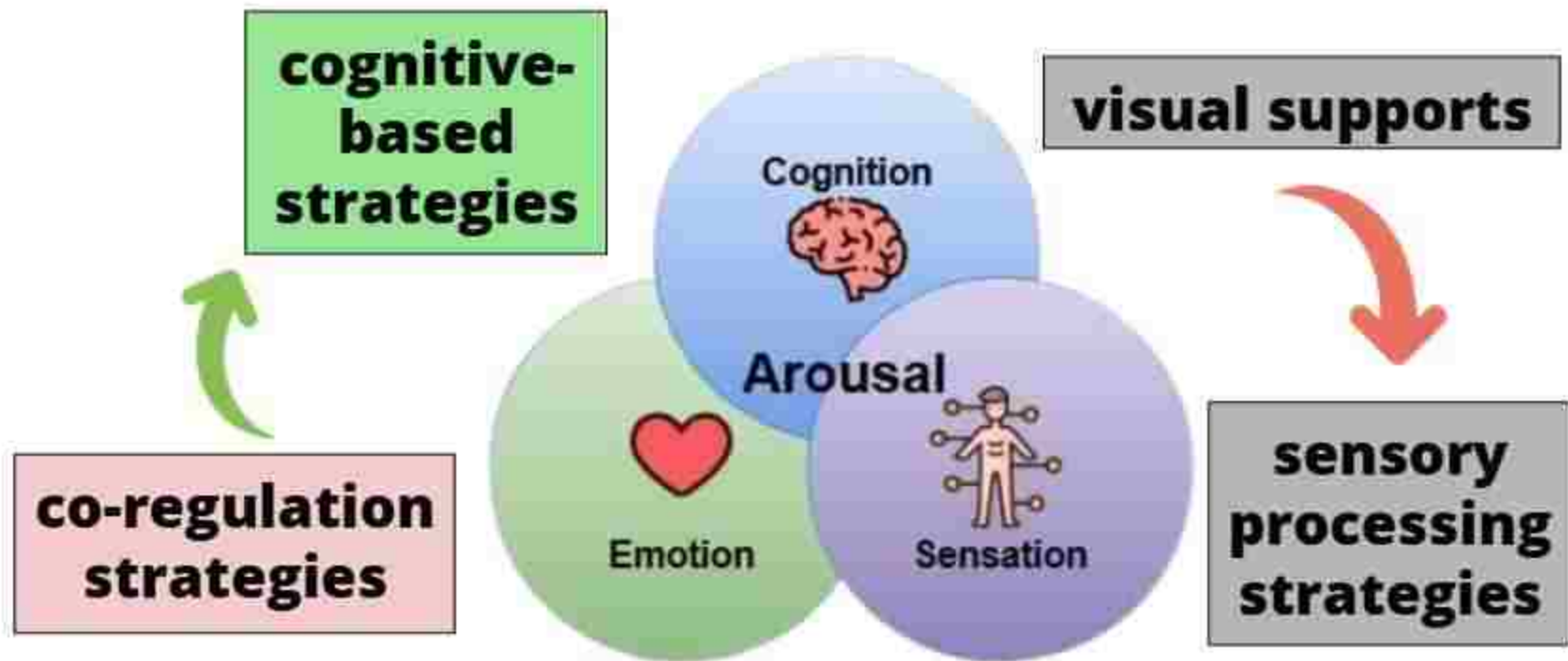
**Have difficulties understanding  
how my actions, words and  
feelings have an impact on  
others around me**

**Struggles with  
perspective taking**

**Have difficulties  
managing own emotions**

**Have difficulties with  
flexibility and thinking of  
alternatives**

# Three groups of strategies





***'All Learning begins with affective and emotional engagement.'***

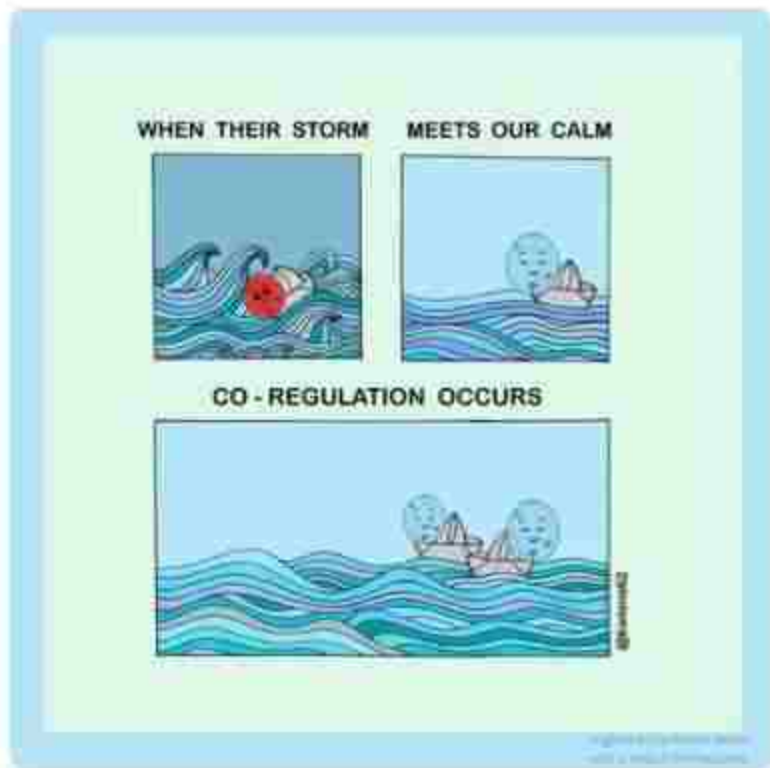
- Dr. Stanley Greenspan



# Co-regulation & Cognitive-based Strategies



# Co-regulation



**Co-regulation** is when two individuals are in-sync, and are able to alert or calm each other to be engaged

This can be done through affect (emotion, attachment or mood) or sensory motor activities



# Co-regulation

## **Build relationship**

- a) Show genuine interest in the person
- b) Focus on connection not compliance

## **Identify own emotional state**

- a) How are you feeling when the child has a meltdown?
- b) Why do you feel that way?
- c) Pause and check your own emotional state before approaching the child

## **Seek to understand**

- a) Make fewer assumptions about the behaviour but be genuinely interested in what the underlying reasons are
- b) Understand the child's needs and sensory preferences



# Co-regulation

## **Co-regulate by matching the child's affect**

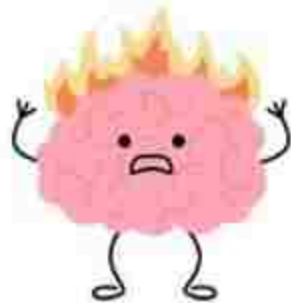
- a) Simplify your language
- b) Slow down your speech
- c) Check your tone of voice
- d) Stop and read the child's cues with both your eyes and ears



# Cognitive-Based Strategies

Cognitive-based strategies are intended to help children

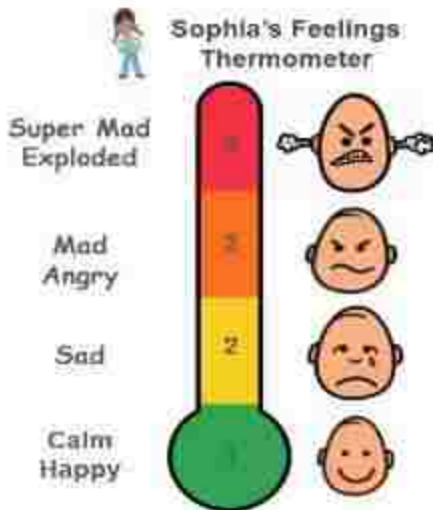
- develop self-awareness, regulate emotions, and approach social conflicts with problem-solving skills
- supports children in building skills to think through their emotions and social situations instead of acting impulsively



# Cognitive-Based Strategies

## Emotional Thermometer:

- A simple visual scale to help children think through and label the intensity of their emotions (e.g. calm, happy, sad, mad, angry, very mad)
- Teach, model and practice strategies to calm down before reaching the “red zone”



# Cognitive-Based Strategies

## Individualised Visual Card

- Incorporating children's interest into visual cues may increase the likelihood for children to remember what to do



# Cognitive-Based Strategies

Helping Children to "Think It Through"



Picture cards with different social situations



Provide structure to problem solving

## Problem Solutions Wheel



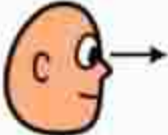



Practice possible solutions



# Cognitive-Based Strategies

Incorporating visual supports of expected behaviors (e.g. Group Time)

Group Rules			
			
Quiet	Listen	Look	Raise Hands to speak



Volume Thermometer		
5	Yelling Voice	
4	Loud Voice	
3	Talking Voice	
2	Near Voice	
1	Whisper	
0	Quiet Mouth	

# I learn better **when I feel secure!**

**Co-regulate to  
alert or calm**



**Help me learn to  
think about my  
emotions**



# **Collaborate** with others to support me

Ask my DS-Plus Key Worker to model how to use the visual supports with me



Share helpful visuals with my daddy and mummy

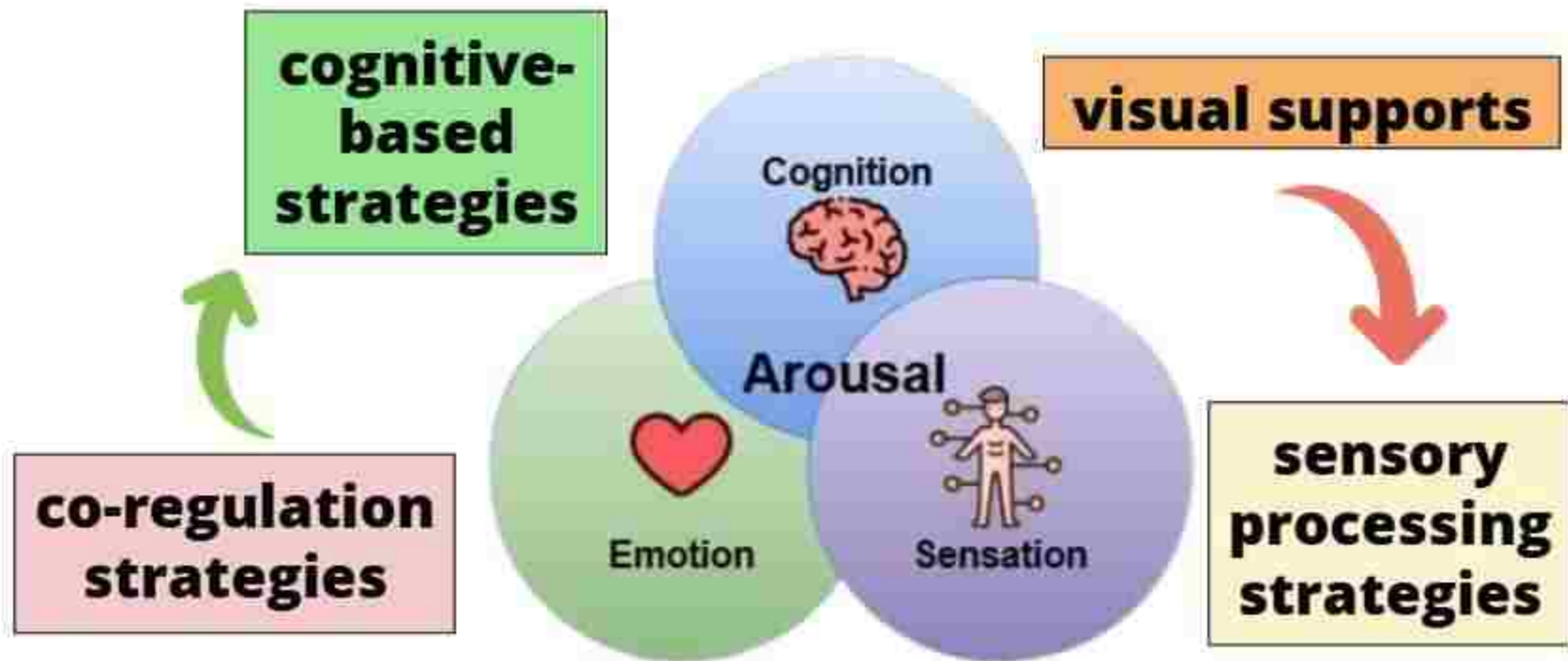
Co-plan and Co-teach with my DS-Plus Key Worker

Ask daddy and mummy what will upset me





# Three groups of strategies



# Summary

**Be concrete**

**Use structure**



**Be aware of your own emotions**

**Plan activities with proprioceptive input**



**Break things down into steps**



# Resource List

## Websites

- AUTISM Little Learners (<https://autismlittlelearners.com/>)
- Boardmaker (<https://get.myboardmaker.com/license>)
- iCAREcommunity (<https://icare.cph.sg/>)
- Social Thinking (<https://www.socialthinking.com/>)
- TEACCH ([www.teacch.com](http://www.teacch.com))
- Teachers Pay Teachers (<https://www.teacherspayteachers.com/>)
- TD Snap AAC (<https://www.mytobiidynavox.com/store/TDSnap>)
- Twinkl (<https://www.twinkl.com.sg/>)
- Weave Chat AAC (<https://www.weavechat.com/download>)

## IG accounts

- [@chanafavors](#)
- [@inspiremyplay](#)
- [@ohhappyplayday](#)
- [@theottoolbox](#)



# Resource List

## Podcast/Vodcast

- Autism Little Learners (<https://autismlittlelearners.com/the-autism-little-learners-podcast/>)
- Kelly Mahler (Interoception) (<https://www.kelly-mahler.com/free-resources/>)
- SLP Talk Show | Cari Eibert (<https://slptalkshow.podbean.com/>)
- The OT Butterfly - The sensory W.I.S.E. solutions podcast for parents (<https://theotbutterfly.com/the-sensory-w-i-s-e-solutions-podcast-for-parents/>)

## Books

- The Out-of-Sync Child: Recognizing and Coping with Sensory Processing Disorder ([https://www.amazon.sg/dp/0399531653?ref=mr\\_referred\\_us\\_sg\\_sg](https://www.amazon.sg/dp/0399531653?ref=mr_referred_us_sg_sg))
- The Out-of-Sync Child Has Fun: Activities for Kids with Sensory Processing Disorder ([https://www.amazon.sg/dp/0399532714?ref=mr\\_referred\\_us\\_sg\\_sg](https://www.amazon.sg/dp/0399532714?ref=mr_referred_us_sg_sg))
- We Thinkers! Series (<https://www.socialthinking.com/products>)



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# Q&A



# THANK YOU

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