Are my students *IN THE ZONE* for learning?

WHITE ZONE STRATEGIES to address levels of alertness and sensory needs

Self-regulation is the ability to attain, maintain and change levels of alertness appropriately for a task or situation. Students with Sensory Processing Disorder (SPD) have difficulty reaching their zone of learning, as they are unable to change their degree of alertness. For example a typical student may be able to unconsciously increase their level of alertness during a test or at lunchtime and then calm themselves down to sit quietly during story time.

The purpose of this strategy section is to help teachers provide appropriate strategies for their students with SPD to get in the zone for learning. This is known as co-regulation and with practice the aim is for students to be able to take the strategies of co-regulation and use them independently for self-regulation .

This strategy section has been developed as a tool for teachers and is to be used as a general guide ONLY. Please consult an occupational therapist specialising in sensory processing disorders for assessment and interventions for individual students with complex needs.

When considering which strategies to implement with a student consider:

- Frequency (how often)
- Intensity (how fast)
- Time (when and for how long)
- Type (what activity)

For example; jumping on a trampoline (type) for 5 minutes (time) as high as you can (intensity) before a learning activity (frequency) may help increase the alertness for a student craving vestibular/movement sensory input who may usually be fidgeting and unable to sit still to attend to that task.

Adapted from Northern Territory Dept. of Health and Community Services (2006)

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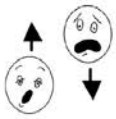
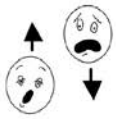


WHITE ZONE STRATEGIES



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- A student in the ***WHITE*** zone is seeking or craving sensory input to regulate their alertness levels.
- These students often give clues as to what sensory input they require for regulating their alertness levels, by their actions and the type of sensory input they seek, for example students who are rocking, spinning or seeking a lot of moving is giving us a clue that they require vestibular movement breaks to regulate their alertness levels.

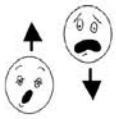
They may benefit from:

GENERAL STRATEGIES

- ☐ Organising input (i.e. regulating sensory input) that fulfils their sensory cravings and enables them to get in the zone for learning.
- ☐ Provide the student with appropriate and safe ways to meet their sensory needs that are not disruptive to the other students, for example access to a chill-out room, regular opportunities to go for a run outside or jump on the trampoline, run an errand, pack away classroom tools etc.

PROPRIOCEPTION (HEAVY MUSCLE WORK)

- ☐ Incorporate whole body heavy muscle work activities:
  - Walking especially upstairs or up hills or while carrying an object
  - Running
  - Swimming.
- ☐ Incorporate pushing and pulling activities:
  - Pushing hands together
  - Standing and pushing against a wall (‘wall push up’)
  - The ‘chair push up’ (lifting one’s body off the chair with their hands on the sides of the seat and straight elbows)
  - Pushing a trolley of books to the library
  - Pushing a shopping trolley on a school trip to the shops.
- ☐ Give the student jobs that require the student to lift and carry heavy objects:
  - Taking out the garbage or recycling
  - Raking leaves, sweeping leaves
  - Watering herbs and plants with a watering can
  - Holding the door open
  - During cooking stirring big pots and kneading dough
  - Kneading and moulding clay or play dough in a craft activity.
- ☐ Incorporate thera-putty into class activities such as moulding the putty into shapes.
- ☐ Incorporate heavy or weighted toys/ pillows/ blankets.
- ☐ Use large, weighted academic tools such as floor puzzles, weighted counting tools, large lego for building.
- ☐ Check that the student is in the right position for learning, e.g. is their chair and desk the correct height (we can attend longer to tasks if seated in a supported posture).



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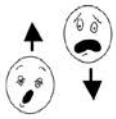

A student in the *WHITE* zone is seeking or craving sensory input to regulate their alertness levels. Strategies form the *RED* zone can also be applied to students in the *WHITE* zone, as well as the following strategies:

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TOUCH

- ☐ Teaching tools that have tactile elements, e.g. felt or sandpaper letters, counters that are textured etc.
- ☐ Provide the student with opportunities to touch different textures during cooking, gardening, car washing, bushwalking and other curriculum activities.
- ☐ Firm touch when giving hand-over hand or physical guidance and high impact sports may support the student's need for tactile input.
- ☐ Access to a 'fidget' toy at appropriate times if they assist the student to focus.
- ☐ Visual stories, explanation charts about appropriate interactions, e.g. at school we give each other space
- ☐ Schedule certain times into their day where physical touch is appropriate, e.g. hand shake on greeting, high fives as rewards.
- ☐ Schedule certain times into their day when it is appropriate to have their shoe and socks off, e.g. rest time, gym class, sand pit.

VESTIBULAR MOVEMENT

- These students often crave sensory input to their vestibular system (inner-ear) and therefore seek to move or watch moving objects/people.
- ☐ They may require "calming up" with alerting input before "calming down" with organising input e.g. jumping vigorously on the trampoline then crawling through a long tunnel before sitting to a task.
- ☐ Complete an indoor obstacle course that may involve crawling and balancing, do an activity that involves heavy muscle work (pushing, pulling, carrying, lifting), do an activity that involves resistance e.g. stretchy theraband, stress balls etc.
- ☐ Some students require constant movement in order to tolerate other sensations such as sound, therefore allowing them to pace or giving them access to a move and sit cushion, a ball chair or a vibrating seat/cushion can help.
- ☐ Allow access to different seating positions for different activities throughout the day to provide opportunities for movement and to assist with alertness, e.g. floor time, bench chair, swivel chair.
- ☐ Provide movement within activities, e.g. active participation in the lesson - coming up to the whiteboard, giving out worksheets etc.

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AUDITORY (SOUND)

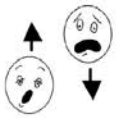
- ☐ This student may benefit from opportunities to listen to high impact music with a full sound and strong beat however they can also experience heightened levels of alertness if music or sounds are high pitched and/or variable in rhythms. Therefore, the effects of the auditory input need to be monitored carefully and music chosen carefully to suit the needs of the student.
- ☐ Opportunities in the class program to incorporate sound and music, e.g. participating in a drumming group.

VISUAL

- ☐ Observe and record what the student is visually seeking-(i.e. looking at and looking for).
- ☐ Students that are watching moving objects such as fans, leaves, spinning objects may be in need of more movement experiences and input to the vestibular system, e.g. jumping, swinging, dancing with movement of the head (and inner ears) in different directions.
    - This student may also benefit from grey zone visual strategies.
- ☐ A student who is looking through the corner of their eye or squinting, looking through fingers or putting items in their visual field could be attempting to filter visual input and focus on a particular object or figure out visual information such as foreground and background. This student may benefit from red zone visual strategies.

TASTE/SMELL

- This student may be seeking strong odours (sometimes inappropriate smells such as dirty nappies or sweaty armpits).
- ☐ They may benefit from strong fragrances that are appropriate for the setting, e.g. deodorant for their body, smelling herbs and plants when gardening, smelling soap or detergent when washing up or carrying out personal hygiene routines, adding essential oils to play dough, paint or other non-edible mediums. Closely monitor how these fragrances affect students.
- ☐ Opportunities to chew on chewy tubes, chewelery etc
- ☐ Opportunities to drink from a straw
- ☐ Opportunities to eat crunchy, salty snacks
- ☐ Opportunities to chew on ice



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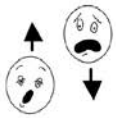

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IMPROVING RESPIRATION

Many of our students experience low muscle tone, postural weakness and have difficulty regulating their alertness levels. Heart rate and respiration are closely connected with these difficulties. These students will often be breathing in a shallow way which makes it difficult for them to get adequate levels of oxygen to their brain or to be able to take deep centreing breaths to calm themselves down. Some students hyperventilate (take short, shallow, rapid breaths) which exacerbates the panic or fright/flight/fight state they may already be in. Daily respiration (deep breathing) exercises will assist all students to develop an important self-regulatory tool that can help them to calm down, refocus and get in the zone for learning.

- ☐ Blowing with force and singing with expression and actions may help to fulfil a student's need for high impact.
- ☐ Encourage deep breathing through extended exhalations which then encourage deep inhalations
    - Hissing sound
    - Humming competition
    - Songs with long vowels
    - Resistance whistles and breathing exercises
    - Heavy muscle work that increase heart rate and encourages deep breathing (e.g. chair push ups, jumping on the spot, bouncing on the gym ball)

WHITE ZONE STRATEGIES

Additional information to assist the teacher in understanding their student.

PRAXIS, MOTOR PLANNING AND MOTOR IDEAS

Praxis is the process of forming an idea and creating and executing a motor plan by taking in feedback through the senses. For praxis to occur smoothly all the senses need to be integrating well and providing accurate information. Many of our students experience motor and verbal praxis difficulties; often referred to as dyspraxia.

This student may:

- Have difficulty with tasks with multiple steps.
- Become confused about the correct sequence of steps.
- Have difficulty imitating or copying actions.
- Have difficulty coming up with ideas during play activities or when manipulating objects, e.g. building blocks or drawing.
- Tend to play the same game or interact with the same activity with repeated movements.
- Not seem to be able to figure out what to do with certain objects or how to manipulate them.
- Not notice the impact of his or her actions on others or the environment, e.g. knocked over a tower of blocks or dropped an object but didn't notice.
- Go about a task in an inefficient or awkward manner.
- Seem to need adult help and feedback more than other students.

MOTOR LEARNING STYLES

This student may:

- ☐ Need to be in a quiet environment to learn.
- ☐ Be more successful with one on one teaching rather than within a group of students.
- ☐ Need help to regulate their alertness level before starting the learning process, e.g. be provided with sensory input to alert or calm themselves so they are in the zone for learning.
- ☐ Need multi-sensory input to learn, e.g. touch, sight, sound, taste combined
- ☐ Need more feedback through their bodies as well as verbal feedback, e.g. writing on sandpaper provides a lot more tactile feedback than writing on paper.
- ☐ Need the task broken down to simple steps (including explicit instructions such as bend your elbow, look down etc.)
- ☐ Need repetition of the steps to a task.
- ☐ Need to watch before trying.
- ☐ Benefit from video modelling and a visual sequence.
- ☐ Need help to generalise the skill into different contexts.

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