Sensory Inclusive Settings: Script
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SI1: Intro to Module
Hi there! Welcome to this module on Sensory Inclusive Settings and thank you for visiting Pastel Education. This is a revamp of one of our first modules based off of feedback from you! Thank you to everyone who submits feedback, it truly helps us improve the content we provide.

The focus of this module will be on how sensory integration disorders can impact students with autism spectrum disorder in the learning environment. Although, the context and discussion of this module is specific to supporting learners with ASD, these concepts and skills can be helpful in supporting students with different kinds sensory integration challenges.

This module is split into two parts: sensory hyposensitivities, and sensory hypersensitivities. If these terms are unfamiliar to you, do not worry, as we will learn all about this very soon. In the sensory hyposensitivities portion, we will look at what are sensory hyposensitivies, sensory seeking behaviour, sensory stimulating behaviour, and ways we can support learners to find comfort and focus in the classroom.

In the second section of the module, we will look into what is sensory overload, how we can recognize sensory overload, sensory meltdowns, de-escalating scenarios, and how we can create more sensory inclusive settings.

Please note that not all of these skills will be applicable to your child or children you encounter. Some may be specific to a scenario, while others may be generalized to better support children with or without ASD. Our goal is to provide you with a set of skills that can be practically applied to assist children in situations where you deem appropriate.

As with all of our modules, we encourage you to remember our guiding principles: understanding the individual, empathy, and patience. These are three pillars that really make a difference in helping children, and are especially important in times of sensory overload. If you are looking to learn more skills related to sensory challenges, please check out our Self-Regulation and Functions of Behaviour Modules.

Thank you again for visiting this site. I strongly believe any improvement we make in the education and quality of life for children with exceptionalities can make a huge difference. Let's get started and jump straight into our first video: What are Sensory Integration Disorders?

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SI2: What are Sensory Integration Disorders (Topic)
Hi, in this video we will be looking at a general overview of Sensory Integration Disorders (sometimes referred to as sensory processing disorder). Sensory integration disorder has been described as “impaired responses to, processing of, and/or organization of sensory information” (Miller, 2009) and is experienced by many individuals diagnosed with ASD.

We constantly use our senses to learn about and navigate our environments, and given that this disorder can affect any or all seven senses (vestibular, proprioceptive, and the five basic senses), simple activities of daily life can become very challenging. Some examples include trouble accurately perceiving light and contours, having difficulties balancing, or experiencing typical ambient noise as deafening.

Individuals with sensory integration disorders can have a wide range of sensory impairments, including difficulty with sensory responsiveness, sensory organization and multisensory processing. If we think about when our sensory systems are perceiving appropriately, we are able to attend to and differentiate sensory stimuli, interpret meaning from this input, and respond adaptively. Sensory integration disorders can affect one or all of these functions.

In this module we will focus primarily on sensory responsiveness. This can be thought of as how sensitive an individual is to one or all of their senses. Often, disordered responsiveness will fall into one of two categories: hypersensitive and hyposensitive.

Individuals that are hypersensitive to a particular type of stimuli may exhibit sensory avoiding behaviour, be very sensitive to stimulation, perceive lights as too bright, perceive sounds as too loud, and may get overwhelmed leading to sensory overload and meltdown.

Individuals experiencing hyposensitivities may be sensory “numb”, may seek out stimulation, touch people and objects, hum, and require greater stimulation to reach a responsive level.

Classrooms can be difficult environments for both hypo- and hypersensitive children. Artificial lighting, busy/poster covered walls, and loud group activity periods can be overwhelming for someone who experiences hypersensitivities. At the same time, it can be difficult for someone experiencing hyposensitivities (sensory seeking) to sit and focus when it is time to do quiet individual work or during a lecture style class.

While individuals may fall into one of these two categories, it is important to note that lots of individuals respond with a combination of sensitivities. Some may be hypersensitive to light but hyposensitive to vestibular input. Some may be hypersensitive to sound and prone to sensory overload, but at the same time, seek out vestibular and tactile stimulation. No two individuals are the same, and it is important to understand the individual and their preferences. Please

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note that a person's preferences/sensitivities can change given how the person feels at the time of exposure, amount of stress they are experiencing, and even when they last ate.

Given the diversity of this condition, it may be hard to discern if a child has a sensory integration disorder or if their behaviour is related to a separate issue. In children with ASD, there are a few behaviours that are typical for both hypo and hypersensitive children. Rocking, spinning, flapping hands, tapping their hands or feet, or watching things spin are typical involuntary strategies children may use to cope with sensory integration differences. These behaviours can help calm an individual who is hypersensitive, or can appropriately arouse a child with a hyposensitivity.

We will continue to discuss typical signs of hypo- and hypersensitivities more thoroughly in the following videos. In the videos to come we will also look at how to help an individual manage their sensory needs in the classroom setting.

Thank you for watching!

Hypersensitive	Hyposensitive
- Exhibit sensory avoiding behaviour - Very sensitive to stimulation - Often perceive lights as being too bright or sounds as too loud - Can get overwhelmed → sensory overload/meltdown	- Sensory "numb" - Often seek out stimulation - Touching people/objects - Humming - Need a greater stimulation to reach responsive level

SENSORY HYPOSENSITIVITIES

SI3: Sensory Hyposensitivity:

Hi, in this video we're going to be taking a closer look at sensory hyposensitive (or sensory seeking) individuals. Hyposensitivities to certain types of stimuli may manifest in perceiving colours as dull, sounds as quiet, or physical touch more lightly than most people. Because of this, stimulation of a greater intensity, frequency, duration, or input from multiple sensory systems may be needed to reach an optimal level of arousal.

To reach this optimal level, children with hyposensitivities will seek out stimulation in a number of ways. It is common to see hyposensitive children rocking in their chairs, rubbing or touching various surfaces, or seeking out messy, reckless and more physical activities. It is also quite common for these individuals to present as clumsy, given vestibular and visual systems are often affected. Delays in both fine and gross motor skills are also common, in turn adding to clumsy behaviour. These delays sometimes manifest as poor penmanship, difficulties with arts

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and crafts or other fine motor activities. If you see a child behaving abnormally, it may be beneficial to stimulate one of their affected senses.

For example, a hyposensitivity to taste or smell may present as a child constantly smelling or licking non-food items (e.g., playdough, grass, markers). A hyposensitivity to vision may present as staring at lights or repeatedly passing objects closely in front of their eyes. It is very common to see children with ASD seeking vestibular stimulation. This could be seen as a child sitting on or swinging on a swing-set for long periods of time. Paying attention to these types of behaviour is a helpful way to begin understanding a particular child's sensory needs. Once you know what sensory needs a child has, it is much easier to develop individual support strategies that a child can use to best succeed in the classroom.

When trying to accommodate to a child's sensory needs, considering the child's environment is a good first step. If a child seated at the front of the class seems to be looking around the room behind them, it may be worth seating them at the back of the class. This could give them more variety in the field of view in front of them and less behind them; encouraging them to look forwards. Other examples of this could involve moving wall posters, moving a child closer or further from the doorway to the noisy hall, turning more lights on or off, and many other possibilities. In a classroom with a variety of sensory needs, it can involve lots of trial and error with various seating plans and surrounding stimuli.

Lastly, hyposensitivities can sometimes lead to outbursts in class, for example yelling to satisfy stimulatory craving. That being said, these outbursts are less commonly associated with hyposensitivities than hypersensitivities. Because of this, children with hyposensitivities are often less disruptive in the classroom and may go unnoticed by teachers.

A child may present as quiet and undisruptive, however they may not actually be learning anything in the classroom. It is important to try and keep a child like this actively engaged. While some kids may be able to focus through a lesson, children with hyposensitivities may require more stimulation throughout the class. In the next video we're going to look at some of the ways to provide individuals with hyposensitivities the stimulation they need, talking about sensory stimulatory strategies.

Thank you for watching!

SI4: Sensory stimulatory strategies

In the last video, we discussed some of the behaviours that a child with a hyposensitivity may exhibit to help them meet their sensory needs. These sensory stimulatory behaviours, such as spinning on a swing for vestibular stimulation, are self-directed and sometimes involuntary coping methods that a child can develop. While some of these behaviours may be appropriate for a classroom setting, others, such as physically touching a classmate, are less appropriate.

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Offering a child an alternative sensory activity can go a long way to keeping a child stimulated while respecting others in the classroom. In this video we are going to look at some strategies that can be used in the classroom setting to help a child with hyposensitivities meet their sensory needs.

Children with hyposensitivities seek out stimulation in environments that may seem dull to them. Introducing sensory tools to your classroom or student can be a great way to provide them with extra stimulation whenever they need it. There are many tools specifically designed for sensory needs, but anything providing the right stimulation can work. Some examples include:

- Handheld tools like fidget cubes, stress balls, or putty are great for tactile stimulation. Scented putty would also stimulate the sense of smell
- Stretchy bands put between the legs of a chair can help add proprioceptive pressure to feet tapping
- Headphones with music or white noise can satisfy auditory needs during an independent work period
- Chewing gum is a common tool for stimulating the sense of taste, smell, and proprioception
- Weighted blankets can help comfort and stimulate proprioceptive nerves

When considering sensory stimulatory tools in the classroom, it is important to address the correct senses. Giving a child with an auditory hyposensitivity a tactile stimulus won't be very effective. As we just discussed, headphones with music could be a better option. Therapists may have specific recommendations for children, but as a teacher you also have the freedom to offer a variety of sensory stimulatory tools to a student, provided this is ok with parents and caregivers.

Sensory stimulatory behaviours work best when they are self-regulated, meaning the child has the freedom to choose when they want to engage in the behaviour. Self-regulation helps enable the child and gives them a sense of comfort and control, and in turn this often leads to a healthier relationship between the child and the teacher. Providing someone with the freedom and tools to engage in sensory stimulatory behaviour will help keep them focused in class and less likely to engage in more disruptive behaviours.

Sensory stimulatory strategies are a great way to improve a students performance and attitude at school, however, they are not guaranteed to meet all of the child's needs every day. A child may continue to engage in other sensory stimulatory behaviour, some of which may be disruptive to the class. It can be important to pick your battles when dealing with sensory integration disorders or ASD. If a child is doodling or humming quietly in class, this may be

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what their senses need at that time, and they may be paying more attention to class material than you think.

If a child is engaging in more disruptive behaviour, try suggesting an alternative sensory stimulatory behaviour or a sensory break. Sensory breaks allow a child to step-away from a distressing situation or moment and give opportunity to privately engage in sensory stimulatory behaviour. Many occupational therapists have recommended personalized “break boxes” for children with ASD or sensory integration disorder. This involves assembling a shoe box sized container filled with a variety of sensory tools specific to that child. We could include gum, putty, headphones, breathing exercises, or any tools that seem to comfort or satisfy the child’s needs.

This concludes the first half of the module on sensory hyposensitivity and creating more inclusive settings for these learners. In the next video, we will begin our discussion of sensory hypersensitivities. Thank you for watching!

SENSORY HYPERSENSITIVITIES

SI5: Introduction to Sensory Overload

In this video, we will discuss sensory overload. This will review a bit of the information covered from the beginning of the module, and focus on gaining a foundational understanding of sensory overload.

What is sensory overload?

Sensory overload is a response that occurs when an individual receives over-stimulation from one or more of their bodily senses. In certain scenarios, this can lead to sensory meltdown, resulting in self-injury, aggression, attempts to escape the environment or mental shutdown.

As mentioned in our “guiding principles” video, it is important to understand the individual. Everyone experiences and reacts to sensory overload in different ways. By understanding the unique challenges someone faces, you can utilize the proper tools to support an individual. Remember, not all people with autism spectrum disorder experience sensory overload and not all individuals facing sensory overload have ASD.

To gain an initial understanding of what sensory overload is like, its best to look at some descriptions people have offered. Some individuals have described auditory overload as “hearing everything - unfiltered and loud – but not being able to focus on any single sound,” “putting a microphone and speaker on full blast,” and “being suffocated by sound.”

Visual overload is said to be like “having glaring lights from all different directions” and have been reported to give painful headaches. But it is important to realize that sensory overload is

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not just an auditory and visual experience. For many, any or all of the senses may be incorporated.

If we reflect on our experiences in highly stimulating environments, we can help relate to sensory hypersensitivities. Think about your own stressful experiences in crowds with bright lights and loud noises, only amplified.

As we can appreciate, sensory overload can be an extremely stressful experience. For children, this can impact their learning at schools, social interactions, and other daily activities. For example, many individuals on the autism spectrum find it difficult to go into grocery stores due to the overwhelming environment.

By understanding the challenges that sensory integration challenges creates for individuals, we can begin to find strategies to support people in more meaningful ways.

This concludes this short video on sensory overload. Thank you for watching, and in the next video, we will take a look at a representation of sensory overload.

SI6: Simulation Exercise

Now that we have a better understanding of sensory overload, let's take a look at what it might be like to experience sensory overload. The following video, made by The National Autistic Society in the United Kingdom, is a virtual reality simulation from the perspective of a young boy experiencing sensory overload. The simulation allows you to look around 360 degrees, so you are able to see Alex's whole environment. To do so, click and drag your cursor while the video plays. Notice how his perception of lights and sounds changes throughout the video. You can look/scroll up or down as well, notice what Alex does with his hands while experiencing the sensory overload.

This simulation recreates a situation of a child experiencing sensory struggles in a mall, however a child may experience many of the same challenges in a noisy schoolyard or classroom. Although initially comfortable with the environment, triggering stimuli can lead to sensory overload. Through this video, you will be able to gain a glimpse into what it would be like to be in this situation from an audio and visual standpoint, allowing you to compare sensory overload challenges in the current setting.

While watching the video, pay attention to the different stimuli Alex sees and hears. The video is best when using headphones. Try and set the volume at a comfortable level to start, but know that it will get louder as the simulation progresses. The video starts at the beginning of a case of sensory overload and will increase in intensity throughout the video.

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Disclaimer: Volume will get loud and possibly painful - this is what many people with sensory overload experience. This video may be experiences as distressful and may trigger sensory overload.

Video: Autism TMI Virtual Reality Experience - The National Autistic Society (UK)
https://www.youtube.com/watch?v=DgDR_gYk_a8

Please keep in mind that this is not what all people with sensory overload experience. Everyone experiences sensory overload differently and at different levels. This is not a simulation for ASD either, only sensory processing challenges to help you better empathize with the complex challenges that people on the autism spectrum may experience.

In the next video we will discuss how we can recognize sensory overload. Thank you for watching!

SI7: Recognizing Sensory Overload
Hi, there! In this video, we'll cover some common behavioural flags for sensory overload. I just wanted to mention that a lot of this material was provided by Angie Voss, the author of *A Sensory Life*, and has some great content that covers more in-depth sensory challenges and strategies to use in the classroom. She has also created a free handout on different signs for sensory overload which I have linked below.

Recognizing Sensory Overload
Let's begin with recognizing sensory overload. Since there are so many signs to look for, we will focus on the behavioural cues for sensory overload that relate to a child in a classroom setting. By identifying the behaviours of sensory overload, we can pay attention to the antecedent or precursors of this behaviour to identify sensory triggers.

Once we know the triggers, we can be creative in mitigating these to create a more inclusive environment. Please keep in mind that these are some common behaviours of sensory overload and are by no means comprehensive or reflective of all individuals with sensory challenges.

Signs Indicating Auditory Overload
For auditory sensory hypersensitivity some things that we can look for are:

- Being distracted by sounds that are commonly unnoticed by others – such as the pencil tapping or a food wrapper at lunch.
- Being startled or distracted by loud or unexpected noises, for example a chair scraping.
- Possibly plugging ears and wincing at such loud noises that might be perceived as painful

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- Frequently asking others to be quiet, stop talking, singing, laughing or making other noises. Or being very distracted from any of these.
- Dislike of gymnasiums, possibly even refusing to go into the gym

Visual Signs

- Some behaviours indicating a possible visual overload could be:
- Squinting or other signs of sensitivity to lights, possibly complaining about headaches
- Being easily distracted by bright posters or other visual stimuli in the room
- Challenges being in colourful and visually busy rooms
- Avoiding eye contact

Tactile Signs

- The last we will touch upon is tactile hypersensitivity. In hypersensitivity to touch, sensory overload may manifest as:
- Becoming fearful, aggressive or anxious to an unexpected touch
- Having adverse responses to rain drops
- Appearing fearful in close proximity to peers or others
- Avoiding or disliking playing with messy materials like glue or finger paints
- Frequently being distressed by dirty hands and wanting to wash hands frequently

For other children, there may be other hearing, sight, touch, taste, smell, and movement based sensory challenges that they may experience as well. It is best to take time to familiarize yourself with all of these, and to help with that, a list with different common triggers is provided at the bottom of this page.

Concluding Remarks – Emphasis on Collaboration

In this video, we have covered some common signs of sensory overload, so that we can better recognize who might have sensory challenges and when they might impact people. Using this, we can focus on observing the scenario prior to the occurrence of the behaviour and identify triggers we may be able to modify. Before concluding the video, I also wanted to mention that parents, teachers, therapists and other specialists can be very helpful in identifying which situations may be challenging and how different strategies may be beneficial for a child.

For teachers, parents are an invaluable resource in better understanding your student, and it can be extremely helpful to speak with parents before classes to understand what situations in which a child may experience sensory overload or any sensory challenge. Furthermore, being able to observe, gather information and communicate insights to parents, therapists and other specialists can ensure that the child receives supports in all environments (not just home or school) that may be beneficial to them. By creating a collaborative environment for everyone to support the child, we can help increase the quality of life for children on the autism spectrum.

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Thank you for watching this video. In the next video, we will focus on sensory meltdowns and how we may identify them. Look forward to seeing you there!

SI8: Recognizing Sensory Meltdown

Hi again, let's get straight into sensory meltdowns. In this video, we will go over common situations in which sensory meltdowns occur, and help you recognize sensory meltdowns.

What is Sensory Meltdown?

Let's start by defining a sensory meltdown. A sensory meltdown is a fight, flight, or freeze response that occurs due to sensory overload. During a sensory meltdown, it becomes extremely difficult to properly process any information and individuals are often controlled by their instinctual "fight or flight" response. To be very clear, it is not a choice of the individual. We will cover assisting individuals experiencing sensory meltdown in its own video at the end of the module.

From the last module, we know the signs of sensory overload and how to recognize individuals that might be hypersensitive. Let's take a look at some of the common scenarios in which sensory meltdowns occur. Please note that during sensory meltdowns, it is extremely hard to support an individual. It is important to identify triggers and create inclusive environments to prevent meltdowns from occurring.

Often sensory meltdowns occur from intense or prolonged sensory overload.
Sensory meltdown may also occur after a child comes from an environment in which they have experienced sensory overload, such as a loud cafeteria or gymnasium, reducing their ability to cope in the present environment.

Another common characteristic of autism spectrum disorder is discomfort with change, and often changes in routine in combination with other stimuli may cause sensory meltdown. For example, familiarity with a teacher may mean that a student is usually successfully self-managing sensory issues. But when a substitute teacher is brought in, this might break the routine and disrupt the child's ability to self-manage. Since this increases the stress experienced by the child, they may be more sensitive to having a sensory meltdown.

Depending on the child, having time to be in a sensory-comfortable environment may be crucial to managing sensory challenges. If a child faces sensory overload and never has a chance in his/her day to relieve themselves of this stress, they may be more likely to experience a meltdown.

Think about it as a jug of water constantly being filled. If there is never a chance to pour some water out, at some point the jug will overflow. Some days, due to increased level of stress,

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individuals with sensory challenges may have more water in their jug, meaning less water, or stimulation, can cause the jug to overflow. Good sleep, eating well, and other self-care activities can help individuals lower their state of stress and be able to handle more stimulation. When we teach self-regulation skills, as you can find in our self-regulation module, we can think of this as making the jug bigger, or teaching students ways to pour some water out in a controlled way.

Recognizing Sensory Meltdown
So, what might sensory meltdown look like? As with anything related to sensory challenges and ASD, it varies between individuals. It's important to understand each child and not generalize across individuals. That being said, here are some common associated behaviours that may signal that someone is experiencing sensory meltdown. Since many experts in the field consider sensory meltdown as a "fight, flight or freeze" response, we will list the behaviours in these categories.

Fight:
For "fight" responses, some common behaviours to look for are:

- Hitting, kicking, biting, spitting, pushing or any other aggressive behaviours.
- As well as self-harming behaviours, such as banging their head against the wall, or yelling and pulling their hair.

Flight:
Flight responses may include things like:

- Trying to run away or escape from the environment
- Trying to hide or retreat under a desk or into a quieter environment
- Covering eyes or ears

Freeze:
Freeze response are also considered shut-down behaviours. In these situations, individuals may:

- Stop speaking or responding to any stimulus
- Or even fall asleep unexpectedly
- This is what was seen in the sensory overload simulation video

Depending on the behaviour, these situations with sensory meltdown may be dangerous for the child or others around. Just to emphasize again, once someone is experiencing a sensory meltdown, it is very difficult to support them, highlighting the importance of preventing triggers and creating inclusive environments.

That concludes this video, I hope that you have a better understanding of scenarios in which sensory meltdown may occur and how to recognize it. Thank you again for watching. In the

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next video, we will talk through a framework to supporting sensory sensitivies. See you in the next one!

SI9: Supporting Sensory Sensitivities Framework
Thank you so much for watching up to this point. I really do hope you've learned some valuable skills that will help your children and students grow.

To begin, let's take a look at a 3-step approach we can take to supporting students experiencing sensory overload. The first step is to identify a behaviour or cluster of behaviours that informs us of sensory overload. This is where we can apply the information on recognizing sensory overload and meltdowns from the previous two videos. For example, covering ears during instruction is a behaviour that can signal sensory challenges.

Observation and understandin g the child is key, and this leads us to our second step: basic behavioural observation. Understanding the occurrences of each behavior and what is happening in the environment before that behaviour helps to clarify why a child is acting in a certain way.

When we focus on the behaviour alone, many times it just seems that behaviours are occurring arbitrarily. This is where many of the day to day challenges can lie in supporting children on the autism spectrum – as challenging behaviours may seemingly occur for no reason. Functional behaviour analysis is covered in our Behaviour 1 module, but I want to introduce you to what is referred to as the *antecedent* of a behaviour response.

The antecedent is the trigger or precursor to the behaviour. In sensory issues, by focusing on what happens before the challenging behaviour or what is consistently present in the environment during a behaviour, you can begin to understand what is causing the sensory overload and why the challenging behaviour response is occurring. In our example of a child covering their ears, this may be due to the sound of chalk scraping across the blackboard.

We should keep in mind that sensory challenges can be multi-faceted in that they can involve multiple senses, or multiple stimuli for a single sensory modality. For example, other common auditory triggers in a classroom may include: humming of lights, pencil tapping, moving chairs, and multiple background conversations.

Through repeated observations, you can begin to build a consistent pool of knowledge that can then be drawn from by you, parents, and/or therapists to provide proper assistance to the child.

The last step is to help address sensory challenges, and this quite simply involves asking: how can we prevent these triggers and create a more inclusive environment? By identifying which

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triggers are present, we have actually done most of the work. Preventing these triggers is largely about getting creative with the environment and your resources to accommodate individuals. For example, use of a white board or smart board instead of chalk on blackboards, having noise cancelling headphones available for special circumstances, modifying seating, digital rather than ticking clocks, or not playing background music where appropriate.

In reality, there are some environmental triggers that cannot be controlled. However, that does not mean it is not important to understand what stimulus may be uncomfortable for individuals. Sometimes allowing for someone to find a quieter area can go a long way. In addition, it may be beneficial to teach students to communicate appropriately to deal with their triggers. These might include asking for breaks or turning down the volume. It's also important to note that there may be other things that are contributing to the behaviour – for example not wanting to do school work. This may be hard to determine without some effort to collect data.

That concludes our 3-step process on creating sensory inclusive settings: identifying sensory behaviours, basic behavioural observation or recognizing triggers, and addressing sensory challenges. Thank you so much for watching, and in the next video, we will take a look at applying this framework in a classroom scenario.

SI10: Applying the Framework Pt 1

Hi there! Now that we have learned how we can create more sensory inclusive settings, let's try applying this framework to a classroom scenario. The focus will be on the process of identifying the behaviour responses that inform us of sensory overload, then evaluating scenarios to identify the antecedent or triggers of the behaviour, and finally looking at creating a more inclusive setting for the individual.

Initial Incident

In our hypothetical scenario, we will play the role of a teacher in a first-grade classroom, with a student on the autism spectrum named Johnny. Let's assume prior to the first day of school we do not know anything about Johnny that we would not know about any other student.

During the first day of school, everything seems to be as usual (normal is a word with a lot of judgement and connotations). It does seem that Johnny is particularly shy and is not interacting much with the other children. The students all break for recess outside.

When they come back, as the students begin settling into their chairs, Johnny starts screaming, plugging his ears, and has retreated underneath his desk.

Looking at the situation, we might guess that Johnny is experiencing a sensory meltdown. What are some signs that this is happening? As we learned previously, children may be more prone to sensory overload or meltdown when returning from recess. During break time, Johnny

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may have been exposed to a variety of tactile, visual and auditory stimulus in an unfamiliar environment, filling his jug to the brim. Johnny may be sensory overloaded from recess coming back into the classroom.

Additionally, we learned that children with ASD often prefer routine, and may become more stressed when deviating from predictable schedules. Since this is the first day of school, in addition to anxiety from being in a new environment and around new peers, Johnny may be dealing with added stress as this is a big deviation from the day-to-day routine he is used to. Furthermore, his most secure relationship, his mother, is not there to support him. This is similar to having his jug already half full before he even goes out to recess.

Johnny's screaming and accompanying behaviour is reflective of the "fight, flight or freeze" response that typical occurs with sensory overload. Screaming may be a "fight" response, or a reaction to try and drown out other painful noises, plugging ears and retreating under a desk are both "flight" responses.

When we take a look at all the potential stressors that may be affecting Johnny and his behaviour, it may help give us more certainty that this is a sensory meltdown. However, just from one instance we cannot be sure that this is definitely the case.

So, as the teacher, what can we do in this situation to help? One great way to verify this would be talk to the parents after school. In this situation, let's say we approach Johnny's mom after class and discuss with her the incident that occurred during the day. She mentions that this is something that they are aware of, and that their child has difficulty with the scraping of chairs.

As a passionate, motivated teacher, we set out to create an inclusive environment. That night, we work with the other wonderful staff at our school to put tennis balls on the bottom of chairs to prevent this from happening.

That concludes the first part of our scenario, and we will discuss the rest in the next video! Thank you for watching!

SI11: Applying the Framework Pt 2

Knowing that Johnny may sometimes struggle with hypersensitivity to certain stimulus, we decide to pay a little more attention to Johnny's behaviours to make sure that he is comfortable in the classroom. Over the next two weeks of observation, not only have we gained a better understanding of Johnny himself, we realize that sometimes Johnny seems more anxious, stressed, and irritable in certain situations. There are a couple observations that we make:

- Johnny seems to squint or put on his hood when sitting at his desk.
- Johnny rubs his legs during class, often distracting others.

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These are two great leads for us to take a bit more time to observe and gather data. We should remember to be open minded about sensory stimuli we may not notice. Let's focus a bit more on each behavioural response.

For the response of covering his head or squinting, we begin to realize that when Johnny has the opportunity, he chooses to play on the side opposite to the area where his desk is. Many of the areas where he plays are the more dimly lit areas of the room. As we pay more attention, we realize that he is actually choosing to avoid the side of the classroom with windows. From these observations, we might hypothesize that the antecedent to his squinting or hooded behaviour may be the brightness of the sun.

After we identify this, we can start creating some solutions. In this case, changing the seating plan to have Johnny away from the windows may be a suitable option. After we implement this, we will also want to keep an eye out to see if the same behaviours continue to occur. If they do, we may have not addressed the proper issue, or another issue may exist, and we might need to repeat this process again. Remember, children with ASD may be uncomfortable with change in routine, so before changing the seating plan it is important to clearly communicate to Johnny that this change may occur so that he may mentally prepare.

The second observation that Johnny rubs his legs, is a bit trickier to understand. Let's go through the process and see if we can come up with a hypothesis for why this behaviour is occurring.

First, we might compare whether this leg-rubbing behaviour happens during larger classroom instruction, group activity sessions, and quiet work time. From this we realize that this seems to occur primarily during quiet work time, and occasionally during larger classroom instruction. To begin, we might ask, what differences in the learning environment and activities during quiet work time might contribute to this?

The first and most obvious difference between group activity and quiet work time is the amount of stimulus from the environment. Group activity can be very loud and busy, while quiet work time has little noise and movement, and students are sitting in their seats for longer periods of time. As we observe more closely, we realize that this leg-rubbing behaviour tends to occur 10 or more minutes into quiet work time, and during lessons, usually involve longer periods of sitting and listening. Based off of these observations, there are multiple potential functions for this behaviour, and we might hypothesize that this may be a sensory stimulating behaviour to address a hyposensitivity.

We can verify this by asking Johnny's parents if he has challenges with sensory hyposensitivities, and if he practices any sensory stimulating behaviours at home. If their

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parents confirm our ideas of hyposensitivities, we can go onto being creative about solutions. If we are able to, we can provide Johnny with a weighted blanket to provide this stimulation, in addition to incorporating sensory breaks for Johnny to provide sensory stimulation in private.

By being more cognizant of the classroom environment, our own actions, and the sensory stimuli we may not notice, we can find solutions to better support a learning environment for Johnny, without negatively impacting the learning of others. In this exercise, we have gone through a process of identifying sensory behaviours, basic behavioural observation or recognizing triggers, and addressing sensory challenges.

Of course, in this exercise there are some aspects that are greatly simplified, and it is a depiction of one set of challenges that should not be generalized to all children with sensory challenges or all children with autism spectrum disorder. However, the process may be continually utilized and adapted as you see fit to best support your children or students.

If other resources, such as parents, educational assistants, behavioural specialists, or therapists are available to help, they can greatly support teachers and parents in this process to help create more inclusive spaces for children with ASD. Thank you for watching. In our next video, we will cover some guidelines for assisting individuals experiencing a sensory meltdown. See you there!

SI12: De-escalating and supporting children experiencing sensory meltdown.
Hi, welcome to our video on de-escalating and supporting a child experiencing sensory meltdown. It is important to remember that once someone has begun a sensory meltdown, it is very difficult to reverse the process or change the behavioural response – but we can always support the child in some manner, such as altering stimuli or removing the child from the environment.

Much of interacting and assisting children during a sensory overload involves not increasing the amount of stress and severity of sensory stimulus for the child. It is important to be aware of your own instinctual responses and recognize how these might make the situation worse.

To help understand this, let's bring this back to the simulation with Alex in the mall. As we saw, Alex was experiencing overload and begins to manifest as a panic like response, with heavy breathing and progressively fuzzier vision. Alex's mother tries to reassure him while his overload worsens. She tells him that she won't be long, and later reminds him to focus on his breathing and to just pay attention to her.

We want emphasize, we are in no way criticizing Alex mother's actions, and her reaction is understandable. Actions like trying to reassure, and reminding him of breathing strategies, can sometimes help someone to regulate. But, if we look at this from Alex's perspective, in his

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state of sensory overload, it is very difficult for him to focus on anything someone might be saying. Additionally, the voice and eye contact may serve as additional sensory input that only contributes to the total overwhelming amount of stimulus.

As you can see, from Alex's perspective, these actions, although well-intentioned, may actually increase the stress for the child. It is only once leaving the highly stimulating environment that it appears Alex begins to find calm and understand what his mother is telling him.

To summarize this scenario, some suggestions are:

- Refraining from trying to talk the individual through the situation, especially by raising your voice or yelling.
- Try not to demand or focus on eye contact.
- do not physically restrain the child.
- Most importantly, ensure safety for the child.

From the perspective of the child these are just added stimuli that contribute more to sensory overload.

Some things that you can do to help a child might be:

- Assess the environment and remove any distressful stimuli if possible.
- Visual communication such as a visual card/prompt to remind students of their strategies.
- Offer a sensory break, or quiet area for the child to recover.
- Offer sensory tools, such as a weighted blanket, noise cancelling headphone or fidget tool.
- Talk to the parent to better understand some self-regulation strategies they might have practiced with the child. Parents often have experienced these situations before and may offer valuable insight into more personalized ways to support their child.

Lastly, from a conceptual level, it is important to acknowledge that sensory meltdown is a response to the environment and the child's state of stress. A meltdown is not a behaviour done to garner attention or other motives. That being said, please note that sometimes seemingly similar behaviour may reflect several purposes and not be tied to sensory challenges. We need to observe the behaviour to understand the function. By practicing the principles of understanding the individual, empathy, and patience, you may be able to make a world of difference in the child's life.

Thank you for watching, and in the last video, we will do a wrap-up and summary of the module.

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SI13: Summary

Hello, welcome to the final video of our sensory inclusive settings module and thank you for watching. I hope that the last 12 videos have given you a better understanding sensory integration disorders, how they can affect an individual, and some things that you can do to help support an individual with sensory processing difficulties.

In the this module, we discussed only two, of many ways, in which sensory integration disorder can manifest, hyposensitivities (or sensory-seeking individuals) and hyper-sensitivites (sensory-avoiding or -defensive individuals). While we discussed these two topics separately, please keep in mind that children will often present as being a mix of both, perhaps hyposensitive to touch but hypersensitive to sound. It is also important to remember that multiple senses can be affected.

If you are unsure if a child has a sensory integration disorder, pay attention to how they interact with their environment and those around them. Try to look for sensory stimulatory or sensory avoiding behaviours such as spinning on swings or covering ears at recess. Remember that while some behaviours are commonly associated with sensory integration disorders, no behaviour is a tell-tale sign.

If a child who you know or suspect has a sensory integration disorder is having a difficult time at school, consider the use of sensory tools and break-boxes. Remember to use available resources, including parents, school support staff, and therapists, to help find what strategies and tools work best for that child.

Try and learn what triggers a child might be sensitive to and create an environment that is best for them. If the noises from the chalkboard seem to be a trigger, try moving them to the back of the class. Some triggers may be unavoidable, and new triggers may present themselves. If you notice someone exhibiting an uncomfortable response to a stimulus, try and remove them from the situation for a sensory break.

We hope this module given you some tools to help design a classroom that is sensory inclusive. But, even in an inclusive environment a child may still experience sensory overload or a sensory meltdown. Look for the fight, flight, or freeze response to detect a sensory meltdown.

Once a meltdown is occuring it can be helpful to remove the child from the environment, but this is not always possible depending on the child's state. If this is the case, try and remove potentially stressful stimuli from the environment. Some examples include dimming lights, quieting the room, avoiding talking, and avoiding eye contact with the child.

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Depending on the meltdown, it may be important to remove others from the area for their safety and to not worsen the meltdown. Our goal is to safely help a child find calm. When it seems that the child is calming down, reassure them and offer a sensory break with a break-box, weighted blanket, or other sensory tool.

This concludes the module on sensory inclusive settings. I hope we have been able to provide you with some practical skills that will benefit your child or student. Remember, skills take time to practice, and as you utilize these principles, you will become better at supporting children with ASD. Thank you to Angie Voss, author of the book: A Sensory Life for helping with this module, and lastly, thank you so much for watching and t!

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Sensory Tools Cheat Sheet	
Tactile	Therapy brushes Fidget cubes Tactile pads (spikey pads for feet)
Visual	Liquid motion toys Lava lamp Visual mazes
Auditory	Noise cancelling headphones Therapeutic music White noise machines
Olfactory	Scented putty Scented markers
Oral	Taste: Chewing gum Motor: Chewable jewelry Vibrating toothbrush
Vestibular	Rope swings Swiveling stool
Proprioceptive	Weighted pad/blanket Foam rollers Elastic band for chair Chewing gum

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Appendix:

~~**No real triggers in the video - for Eric to edit**~~

~~**SI6: Identifying Triggers in The Simulation; Mitigating Triggers in Simulation; Simulation Reflection (?min)**~~

Objectives:

Gain an experiential understanding of audio-visual sensory overload to develop empathy when working with children with ASD. (3min)

Understand challenges in environments that *neurotypical* individuals may take for granted.

Content:

Setting up the simulation

Reflecting on the simulation: how does this compare to the real experiences of people?

Welcome to the third video in this module on sensory overload. If you have not, please try out the "*Autism TMI Virtual Reality Experience*" simulation before beginning this video. In this lesson, we will break down the simulation, working through ways to identify triggers and prevent this scenario of sensory overload from occurring, ending with how to create a more inclusive environment for children with hypersensitivities.

In this simulation, there were elevated levels of background noises that most people naturally tune out. However, Alex is hypersensitive to auditory and visual stimuli and struggles to do so. Although certain lights and sounds may be distracting and unpleasant, there is a triggering stimulus that begins the escalating auditory and visual response.

What were the triggers in this exercise?

So, what was this main trigger? As you likely figured out, the main trigger in this simulation was the scraping noise of the moving chairs. Each scraping noise made Jarod more stressed, leading to an escalating response. The increasing distress that was caused from the chair scraping made other noises within the classroom more unbearable. Other stimulus and potential triggers progressively built into an overwhelming and painful experience. Notice that in this scenario, by the end it was almost impossible to distinguish the conversations and dialogue within the simulation. This is something to keep in mind in communicating to individuals experiencing sensory overload.

What would you do as Jarod?

Covering ears. Wincing when the chair scrapes. Maybe even other behaviours such as screaming to drown out the noises. Possibly when break time begins, knowing that many people are about to move their chairs, you might pre-emptively plug your ears to protect yourself.

This is an example of why understanding the child and being able to put yourself in their shoes is so important. These are all common behaviours that may result from experiencing sensory

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overload like in this simulation. Of course, there are numerous other behaviours that may also have manifested, such as aggression to others, self-harming behaviours, retreating under a desk, attempting to exit the area or not wanting to enter a classroom.

Observation and understanding the child is key. Understanding the occurrences of each behavior and what is happening in the environment before helps to clarify why a child is acting in a certain way.

When we focus on the maladaptive behaviour alone, many times it just seems that these behaviours are arbitrarily occurring. This is where many of the day to day issues lie in supporting children on the autism spectrum – these challenging behaviours that seemingly occur for no reason. We will cover the functional behaviour analysis more in-depth in a different module, but I want to introduce you to what is referred to as the *antecedent* of behaviour.

The antecedent is exactly what we just talked about, the trigger or precursor to the behaviour. In sensory issues, by focusing on what happens before the behaviour or what is consistently present in the environment during a behaviour, you can begin to understand what is causing the sensory overload and why the behaviour is occurring. Through repeated observations, you can begin to build a consistent pool of knowledge that can then be drawn from by yourself, parents, and/or therapists to provide proper assistance for the child.

In this situation, the trigger prior to the stressful response was the chair scraping, this is the *antecedent*. The distress from this auditory stimulus may be the cause of any irregular behaviours that Jarod may have in this situation, such as shouting or hitting. After identifying the trigger, we can work to prevent this through a simple solution such as adding tennis balls onto the bottom of chairs to prevent this noise. Knowing this, as a parent or teacher we can create a more inclusive environment that not only better supports Jarod, but Jarod enjoys and feels more comfortable in. The benefits of this may be that Jarod looks forward to being in class, since it is no longer a painful experience, and that Jarod is more focused on learning and interacting with his peers. As you can see, if we can identify pre-behavioural circumstances, or antecedent of behaviour, we can modify the environment, or interaction with the child to prevent these escalating sensory overload responses and the behavioural manifestation of these from occurring.

What were other potentially sensory triggering stimuli in this situation?
Sensory challenges can be multi-faceted as well. Other common triggering auditory stimuli in the classroom that are reflected in this simulation include: humming of lights, pencil tapping, chalk scraping on the black board, and multiple background conversations. Whereas Jarod was particularly sensitive to chair scraping, different children may find different types of stimuli challenging. Now that you have had an experience that resembles sensory overload, it might be beneficial to take the time and just be aware of which sounds, sights, smells, touches, and

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tastes you naturally tune out in an environment that others may find unpleasant. Many times, identifying triggers is a combination of being more cognisant of the environment and understanding how an individual responds to different settings.

Preventing Triggers – Creating a more inclusive environment
So, how can we prevent these triggers and create a more inclusive environment? By identifying which triggers are present, we have actually done most of the work. Preventing these triggers is largely about getting creative with the environment and your resources to accommodate for individuals. For example, tennis balls on chairs, white board or smart board instead of chalk on blackboards, having noise cancelling headphones available for special circumstances, modifying seating, digital rather than ticking clocks, or not playing background music where appropriate.

In reality, there are many environmental triggers that cannot be controlled. However, that does not mean it is not important to understand what stimulus may be uncomfortable for individuals. Sometimes allowing for someone to find a quieter area can go a long way. In addition, it may be beneficial to teach students to communicate appropriately to deal with their triggers. These might include asking for breaks or turning down the volume. It's also important to note that there may be other things that are contributing to the behaviour – for example not wanting to do school work. This may be hard to determine without some effort to collect data.

Simulation Reflection/Concluding Remarks
Just before we end the video I would like to bring up a few things about the exercise. As a simulation, it is important to remember that it is impossible to incorporate the emotional stress that accompanies these situations. No touch, smell, or taste was incorporated, which may be part of sensory overload for certain individuals. This activity was a simplified version of what people may experience.

As a thought experiment, the feeling of being overwhelmed during sensory overload has been described to me as being alone and lost in a giant crowd at a carnival – only 10 times worse. Now in that same crowd, imagine a close friend, family member, or significant other with you. Imagine how much less stressful that situation may be.

This thought experiment demonstrates the need to build relationships and understand the child with sensory overload. As a parent, it may be beneficial to set-up a meeting with school teachers to help them communicate and form a relationship with your child. As teachers, it is important to understand the child and not be discouraged by initial challenges.

That concludes this video. Thank you again for watching and in the next video we will take a more in-depth look into recognizing sensory overload.

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