

## **Supporting Students with an ASC to understand and make Inferences**

Students on the autism spectrum often have good reading accuracy scores but much poorer scores for reading comprehension. They may take both spoken language and written language literally and can be blind to the context of a story, picture or event and so interpret these differently (Vermeulen, 2012). A student with an ASC is likely to find the communication between characters in a story confusing when information is omitted - the writer assuming the reader can fill in the missing pieces and understand intent.

Many students on the autism spectrum have weak central coherence (CC) focusing on the details rather than on the gist of the story. They may lack theory of mind (ToM) which affects their ability to imagine another person's thoughts and feelings in order to make sense of their actions and to predict what they may do next. Some students will have problems in executive functioning, as seen in their inability to plan, organise, stay on task or shift attention and multi-task (Baron-Cohen, 2008). This will have a considerable influence on their ability to process and understand the text of a story or novel effectively – particularly works of fiction rather than fact.

### **What does it mean to make an Inference?**

An inference is an idea or conclusion that's drawn from evidence and reasoning. Predicting is a part of inferring. When reading a text, making an inference requires using clues from the text to figure out something that the author doesn't tell you explicitly. A reader is required to fill in the blanks left by an author.

We engage in making inferences every day. The small detail in everyday scenarios and conversations omitted as most people can infer that information, but this is a core difficulty for those on the autism spectrum. For example;

- We infer it is raining when we see someone with an open umbrella.
- We infer people are thirsty if they ask for a glass of water.
- We infer that it was windy during the night if we wake up to see tree branches on the ground and lawn chairs turned upside down.

Guessing, implying, hinting, suggesting, and reasoning are just a few of the mental processes in which we draw inference.

## How do I teach Inferences?

Regardless of the cognitive ability of those students with an ASC, it is essential to continually model and teach making inferences. Let such students know that making inferences is a skill they already use in life. Share different meaningful scenarios and encourage them to tell you what kind of inference they would make in that situation. Emphasise the idea that we already have experience of this skill in real life and now we just need to apply it to reading will help the student feel more confident for the lessons to come.

- **Explain how writers don't always completely explain things** and that we must piece things together like detectives, to figure out what what's going on. Talk about how we take all our background knowledge and our experiences, called our schema, and combine this with clues from the text (what the author does tell us). These two things together, the text plus our schema, helps us make an inference, which allows us to more fully understand the meaning of the text.
- **Use pictures from a magazine or book.** Ask your students about what is happening in the picture or what the story will be about. Think aloud as you make connections between the facts and your prior knowledge, using phrases such as, “The picture looks like... or I know that because...” If there is no text to complicate matters, students can gain some strong inference skills with pictures. Having only illustrations and no text, forces students to carefully observe what is going on and to notice small details in order to understand the story's meaning. Find opportunities to stop and think aloud, to model for students the thinking processes which are involved in making inferences.
- **Watch Pixar Short Films.** Another way to illustrate and rehearse inference is to watch Pixar short films in class. Pixar so brilliantly makes a story about inanimate objects into a heartfelt emotional masterpiece without language - a brilliant tool for teaching inference to those with an ASC. Stop in key places and think aloud, modelling for students the thinking processes which are involved in making inferences. Many Pixar titles can be found on YouTube. Ideal Pixar short films for inferences: For the Birds, The Blue Umbrella, La Luna, Presto, Lifted, and Geri's Game.
- **Model making inferences while reading – be explicit.** Use phrases like, “*The text says... and I know \_\_ because \_\_*”.
- **Highlight simple sentences and descriptive passages that they can draw inferences from.** Encourage and support the student to infer the author’s intention behind the descriptive passage.
- **Write it out.** Make use of dry-erase boards to quickly illustrate the thought process behind making inferences. Many students with an ASC are visual learners so only

providing the auditory teaching of modelling the thought process is not enough. You may need to write / draw it out too.

- **Use graphic organisers.** Graphic organisers are great way to help students structure their thoughts and provide some visual cues on the process of developing inferences. Remember – even the higher functioning learners need visuals too!

Name \_\_\_\_\_ Date \_\_\_\_\_

### Making Inferences: Reading between the Lines

**Directions:** Read the text to make an inference based on the information provided and what you already know. Remember, you want to reveal what the author isn't telling the reader directly.

What I know from **the text**:

What I know from **my brain**:

My Inference

Name: \_\_\_\_\_

### MAKING INFERENCES

Use the clues from the text and what you already know in order to make an inference. Write your inference below.

What I Already Know	+	Words From the Text	=	What I Infer

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