

APPENDIX D: AUTISM SPECTRUM DISORDER INVENTORY

How to Use this Appendix

This appendix is intended to provide team members with a tool for gathering information about the student with ASD. It explores the primary characteristics and associated features of ASD described in Chapter 1.

- **Social relationships** (pages 87-88): explores how a student relates to people in his environment
- **Communication** (pages 89-91): explores how a student interacts using verbal and non-verbal communication and visual supports
- **Restricted Behaviours/Interests** (pages 92-100): explores how a student relates to objects and activities, attends to activities, reacts to structure and routine, and responds to reinforcers and motivators
- **Associated Features** (pages 101-104): explores common challenges to students with ASD, including sensory sensitivities, anxiety, resistance, anger management, problem-solving, independence, and academic achievement

Recommended steps for gathering information include:

1. Scan the inventory before you begin and prioritize sections for completion. It may not be necessary to complete the entire inventory. **Please note:** Completing the overview on page 86 is recommended.
2. Assign sections to the appropriate team member (for example, the Communication section may be assigned to the team's speech-language pathologist). The inventory was not intended to be completed by a single person.
3. Agree upon a timeframe for completing the chosen sections. The team, for example, may determine that some sections are a higher priority than others and attempt to complete them in the short term. Other sections, while important, may be completed in the longer term.
4. Answer the questions in selected sections as completely as possible. Sources of information may include direct observation, school files, clinical reports, and so on. It may be necessary to set up activities or situations in order to gather the necessary information.
5. Summarize the gathered information using the *Inventory Summary Sheet* on page 105. This facilitates the process for developing the student profile and identifying priority learning needs, as described in Chapter 2.

Student _____ DOB _____ Date _____

Participants / Roles _____

Describe the student's typical day—what he does, where, with whom, with what level of support.

Identify which parts/activities of the day/week are:

A. successful/meaningful/pleasant for the student and done with most independence

B. fairly successful with a lot of support

C. generally problematic, requiring complete one-to-one support, or often involving resistant or non-compliant behaviours from student

Social Relationships: Responses to People

Describe student's responses to people. For instance, does student:

- try to keep space between himself and other people, or seek physical closeness to (clinging to, standing next to) students/adults?
- use peripheral vision well to watch actions of others without seeming to look?
- seem to like a particular student/adult in your setting? Who? Any idea why?
- try to connect with other students through play or words but somehow always "gets it wrong"?
- respond with awareness/mild concern?
- use strategies to engage or re-engage attention of adults or peers? Or...?

Social Relationships: Social Understanding/Skills

How/how well does student:

- understand/predict other people's reactions?
- understand impact on others of his own actions?
- attempt to interact socially with peers/adults?
- respond when social attempts are not successful (repetition of his strategy, anger, withdrawal, depression, or...?)
- handle losing in a game?
- participate in group or co-operative learning/class projects/teams? Or...?

Social Relationships: Imitation/Turn-Taking

How/how well does student imitate words or sounds? Gestures or actions? Actions with an object?

Will student imitate adults/peers without prompting, such as lining up when others do, or picking up and using actions such as “high-five” or verbal expressions?

Is imitation immediate or delayed? Different for verbal/motor?

What has been tried/what works to improve ability to imitate?

Describe turn-taking skills with adults. Peers? With what activities?

What works or has worked to improve turn-taking?

Communication: Receptive

Describe kinds of verbal directions student can follow: one step? multi-step? With or without gestures or visual cues? In non-distracting setting only, or in many settings?

Is there a delay for responding to words? To other sounds or visual cues? How long? Worse in a distracting environment?

Describe ways in which student can take in information—spoken words, photos or line drawings, print, demonstration, other? What works best? Can he look and listen at the same time, or does he look away or put head down to listen.

How can you tell that he has understood what he has heard? Does he seem to be aware when he has not understood? How does he communicate confusion?

Describe any situations in which student has seemed confused by figurative language/slang/multiple meanings/humour.

Communication: Visual Supports

How/how well does student make use of visual supports in his environment?
Non-verbal communication (body language, facial expression, body proximity, gesturing, pointing, eye contact, eye gaze, eye shift...)?
Natural environmental cues (placement of furniture or objects such as “finished paper” box, printed material such as signs, logos or pictures, actions of others such as students lining up, or...)?
Organizational and information-giving tools (calendars, TV guide, menus, illustrations, written instructions or directions, or...)?
Specially designed tools (picture or written phrase book to cue speech, pictures/words for steps in a task, menu of choices for free time, problem-solving visuals, or...)?

Communication: Expressive

In what ways/how successfully does student communicate?
<ul style="list-style-type: none">• to get needs met? • to engage socially? • to participate in conversation? • to protest? • to make choices? • other?
Does student communicate need for help? How? To whom? In what situations?
How/how well does he use non-verbal communication (facial expression/body language/gestures)?

Restricted Behaviours/Interests: Motivation

Kinds of Activities/Materials Enjoyed
<p>Tactile: sand, water, macaroni, rice, finger-paint, plasticine or playdough, slick surfaces such as photos or magazine pictures, vibrating toys, soft fabrics or plush, or...</p>
<p>Edible: Candy, cereal, raisins, potato chips (or other salty foods) or food of only a particular texture such as soft or crunchy, liquids, or...</p>
<p>Visual: tops, helicopters, fans or other things that spin, Marbleworks™ or other toys whose parts move, bubbles, kaleidoscopes, flashlights, toys which open and close such as Jack-in-the-box, books or pictures, computer or electronic games, having adult exaggerate facial expressions or imitate student's movement or actions, or...</p>
<p>Auditory: musical instruments, bells, music tapes/CDs, taped books, singing, having adult change voice tone or pitch, having adult imitate student's words or sounds, listening to sounds made by shaken material or to objects which distort the voice or to sounds made by electronic or computer games, use of familiar slang or repetitive expressions, or...</p>

Restricted Behaviours/Interests: Motivation

Kinds of Activities/Materials Enjoyed
<p>Gross Motor: rough and tumble play, being rolled tightly in a blanket or squeezed into small spaces, running, spinning, rocking, jumping on trampolines, rebounders or hop balls, dancing, riding on bikes/trikes or scooter boards, in wagons, or...</p>
<p>Fine Motor: drawing, painting, plasticine, shape sorters, puzzles, lining up small objects, stacking or nesting objects, inserting objects into small spaces, or...</p>
<p>Cognitive: books, letters, numbers, academic games, worksheets, collecting facts about certain topics, getting a high score, a good grade or an award, access to materials of particular interest to him, access to free time, being allowed to control his own schedule or set the agenda, being allowed to concentrate on mental perseverations, or...</p>
<p>Social: Spending time with a particular peer or adult, being allowed to talk to someone about topics of his interest, having a group of students pay attention to him, being able to make people laugh, taking a directive role in activities, or...</p>

Restricted Behaviours/Interests: Exploratory Style**Describe how student explores an environment with many activities/materials.**

- Preoccupied with some solitary non-play behaviour?
- Passive, waits for adult cueing?
- Reverts to some familiar verbal or physical routine every time he enters area?
- Seems to need to touch or move everything in the room before settling with one thing?
- Picks one activity (the first time, or every time) and resists leaving it for anything else?
- Approaches adult for attention or involvement?
- Does something provocative to get adult attention? Or...?

Restricted Behaviours/Interests: Play/Activity Skills**Describe student's play behaviour.**

- Chooses age-appropriate activities or...
- Plays appropriately with toy/activity or...
- Plays alone only or plays in parallel/interactively with adults/other students or...
- Shows pretend play spontaneously/after demonstration or...
- Plays games with structured rules: if so, how was he taught to do this?
- Shows enjoyment of activities with adults/peers for the interaction itself? Which activities? With which people?
- Seems to feel that winning is the only reason to play a game?
- Acts to get predictable attention from peers, even if it is laughter or scapegoating?

Restricted Behaviours/Interests: Structure/Routine/Repetition

Daily Schedules
<p>To anticipate his daily schedule, how does the student make use of:</p> <ul style="list-style-type: none"> • actual or symbolic real objects? • photographs? • line drawings, coloured or black and white? • written words? • verbal/non-verbal/signed explanations from adults? • watching and imitating other students? Or ...?
<p>Once a schedule is established, how does student manage changes?</p> <ul style="list-style-type: none"> • Becomes upset if schedule is changed? • Wants to repeat the same schedule of activities every day? • Relies on the presence of a familiar adult as his structure or schedule? • Returns to a perseverative activity as soon as an activity is done or his time is unstructured? • Shows distress at leaving a task or activity “unfinished”? Or...?
<p>If the schedule or normal routine needs to be changed, what works best?</p> <ul style="list-style-type: none"> • Tell student well in advance. • Tell him just before change occurs. Or...?
<p>Describe approaches that have worked well to help student manage changes to schedules or routines, and approaches that have not worked well.</p>

Restricted Behaviours/Interests: Transitions**Describe student's difficulty with transitions from:**

- one part of room to another?
- one room or area to another?
- one activity or subject to another?
- one adult to another?
- different rules/expectations with different situations/people?

What works to handle problems with transitions?

- Verbal warning of coming transition?
- Non-verbal cue such as holding two fingers, then one finger up?
- Picture/drawing cue?
- Calling student's attention to peers and getting him to imitate?
- Showing object to be used for next activity?
- Letting him carry object to be used for next activity?
- Verbally or visually "finishing" the activity? Or...?

If transitions are/have been difficult for this student, what approaches were tried? What worked? What didn't work?

Restricted Behaviours/Interests: Instructional

What new activities or skills have been taught in your setting?

How were they taught—verbal instruction, demonstration by adult or student, written instruction, reading, hands-on experimentation or practice, watching videos, or...?

What supports are needed to help student transfer a skill from one setting/person to another?

How long or how many practices does the student usually need to master a new activity or to learn new information?

Does student understand “first..... then” (doing something to get something he wants)? If he understands, how well does he accept/work within this structure?

What kinds of skills/activities are the easiest for the student to learn? The hardest?

Restricted Behaviours/Interests: Motor Skills**How are student's fine motor skills for:**

- manipulating small objects?

- dressing and other self-care tasks?

- paper/pencil/scissors/keyboarding tasks?

- using both hands at the same time?

- putting right amount of pressure on pencil, keyboard, etc.?

- age-appropriate games (cards, trading cards, board games, computer...) Or...?

Is student perfectionist about appearance or formation of his printed/cursive letters/numerals? How does he show this? Does anything help to increase his tolerance for imperfection?

How are student's gross motor skills for:

- Moving around classroom/home/community?

- Sports or activities requiring running, climbing stairs or ladders, jumping, balancing, use of balls or other equipment? Or...?

Restricted Behaviours/Interests: Attention

Attending and Focus
<p>What are indicators that the student is attending to you?</p> <ul style="list-style-type: none"> • Student stills body movements or turns body toward you, even though he doesn't appear to look or make eye contact? • Student follows your verbal/gestural directions? Or...?
<p>What are indicators that the student has tuned out?</p> <ul style="list-style-type: none"> • Student's eyes glaze or seem to lose focus or to look through you? • Student looks at something else? • Student joins in conversations in which he isn't included or answers questions being asked to someone else in the room, even without looking at the other people involved? • Student leaves seat or makes a particular physical movement? • Student returns to a particular self-stimulatory action or a perseverative verbal topic or barrage of questions? Or...?
Refocus: What works to re-engage the student's attention?
<p>Tactile/Proprioceptive/Vestibular: deep pressure on joints, stroking, tickling, touching student's shoulder or hand, finger play or some other familiar interactive game, standing up and leaving area and then returning, gross motor activity, chewing something cold or crunchy, or...</p>
<p>Visual/Auditory: bubbles, something that spins, changing light level in room, gesture toward task or reinforcer, gesture toward visual schedule; singing, changing pitch or musicality of voice, using a musical or noise-making toy, whispering, reducing noise in the room, verbal reminder or reinforcer of schedule or activities, having student repeat instructions or rules or sequence of tasks verbally, or...</p>

Restricted Behaviours/Interests: Perseverations

Describe perseverative activities that student does (repetitive activities with no other obvious function)?

- Rocking or spinning his body or spinning objects?
- Lining up objects or looking at objects by squinting or using peripheral vision or moving his hands or objects in front of lights or in front of his eyes?
- Repeating things he has heard (songs, movie dialogue, or particular words/phrases?)
- Asking repetitive questions or fixating on one topic of conversation? Or...?

Does student seem to use perseverations to

- calm anxiety?
- signal overload/anxiety/confusion?
- meet need for a particular kind of stimulation?
- screen out distractions?
- avoid a task demand or avoid sensory input such as sound or light?
- fill a gap in his schedule? Or...?

Are you able to use any perseverations as rewards for task completion (rocking chair, completing puzzles, reading/drawing on favourite topics, talking to adult about favourite topics, or...)?

Associated Features: Sensory Sensitivities

Over-reaction	Under-reaction
<p>Hearing Easily distracted by soft sounds or any background noise, covers ears, screams, gets anxious before predictable loud noise, or...</p>	<p>Doesn't respond to sounds, doesn't distinguish speech from other noises, creates constant or repetitive sound as if to stimulate self, or...</p>
<p>Sight Easily distracted by anything visual in environment, closes eyes or squints to avoid light or glare, uses peripheral rather than direct vision, responds as if threatened by movement around him, or...</p>	<p>Oblivious to light or things in his environment, bumps into people or objects as if they are not seen, has trouble tracking objects or people if they move, difficulty with eye-hand coordination and telling objects from their background, or...</p>
<p>Touch Has difficulty with light touch, activities such as hair-washing, teeth-brushing, or swimming, or materials such as sand, glue, many kinds of clothing, or...</p>	<p>Seeks deep touch or pressure, tight clothing or shoes, touches others to get information, doesn't understand personal space, high pain threshold, or...</p>
<p>Taste/Smell Eats a limited diet, difficulty swallowing, reacts to strong odours or to odours others don't notice, or...</p>	<p>Chews or mouths objects inappropriately, smells or licks objects or people, doesn't notice strong odours, or...</p>
<p>Vestibular/Proprioceptive Avoids or has difficulty with movement activities, especially those requiring feet off the ground such as climbing, walking from one surface to another, somersaulting, bending over to pick up object from floor; uses inadequate pressure to hold objects or to print; motor planning and sequencing of actions or speech, or...</p>	<p>Seeks constant movement, especially over-stimulating spinning, may deliberately bump into people or objects or sit down hard, may have low muscle tone and lean on people or objects, uses too much pressure to hold or touch objects, motor planning and sequencing of actions or speech, or...</p>

Associated Features: Self-Management**Anxiety/Calming**

In what situations/settings do you think the student feels anxious? How can you tell? What do you think may be the reasons for his anxiety:

- Not knowing what comes next?
- Different physical setting/different people?
- Fear of failing at the task?
- Fear of not being perfect or the best?
- Overwhelmed by environmental stimuli? Or...

Please list any approaches or methods that you have observed the student to use, or which adults have used, to help calm the student when he seems anxious/upset/overwhelmed.

Organization

What strengths/weaknesses does student show with organization or planning (work or living space, locker, belongings, time management, or...)?

Can student generate his own structure for managing time, sequencing and completing tasks, using free time, etc.? Will student accept someone else's structure?

Associated Features: Self-Management

Resistance
Is resistance seen with particular tasks or people or in particular settings or times of the day or times of year, or...?
Does student resist with passive withdrawal, verbal/physical aggression, or...?
<p>Does resistance seem to happen because</p> <ul style="list-style-type: none"> • task demand made before relationship established? • task involved something unpleasant for physical or sensory reasons? • task made no sense to student, or was too difficult or too large? • task had no meaningful reward attached? • student was over-stimulated or under-stimulated? • student resists anything new or any demands, familiar or new, as a reflex or habit? Or...?
What has been tried to manage resistance? What works? What doesn't work?
Anger Management
In what settings/situations does student seem to show anger? What triggers it? What are the first signs? What usually happens next? How long do outbursts last?
What approaches have been used by the student or by adults to manage student's anger? What works/doesn't work?

Associated Features: Self-Management

Problem-Solving/Independence
<p>How does student respond to a problem or difficulty? Describe examples.</p> <ul style="list-style-type: none"> • Waits passively for help? • Communicates need for help verbally/non-verbally? • Tries one strategy over and over? Tries different strategies? • Tantrums? • Gives up immediately? Or...?
<p>What problem-solving strategies have been taught to the student? What works? What doesn't work?</p>
<p>Have efforts been made to reduce student's dependence on adult assistance? In which settings? How is it working?</p>

Associated Features: Approaches to Learning

<p>Are student's comprehension skills for written material in academic areas (locating information, identifying main idea, sequencing, inferring, concluding, analyzing, math problem-solving) on par with his rote memory skills in those areas? How has that been assessed?</p>
<p>Does student show awareness (self-corrects, stops reading, or looks puzzled) when he has missed the meaning in what he reads, or is he reading just to get to the bottom of the page? Can he/does he ask adults/peers for repetition or clarification?</p>
<p>What strategies/techniques have been used to help student improve comprehension of written material or ability to solve math word problems?</p>

Inventory Summary Sheet

Name _____ Date _____

Areas	Strengths	Priority Learning Needs
Social Interaction		
Communication		
Restricted Activities and Interests		
Associated Features Environmental Sensitivities Anxiety Anger Management Independence Academic Comprehension		

