Disclosure

✧ I declare that aside from materials I have authored, I, or my family, do not have any financial relationship in any amount with a commercial interest whose products or services are discussed in my presentation. Additionally all Planner’s involved in today’s presentation do not have any financial relationship.

✧ Non-Financial:
  ✧ FLASHA: VP Convention

✧ Financial:
  ✧ Professional Communication Services, Inc.: President
  ✧ Author, intellectual property
  ✧ SCSHA registration

My Books

Reading
Word attack skills are typically excellent but comprehension is the problem

...or is it?

Typically prefer non-fiction to fiction.

If the topic is an area of interest, do you think they will read it?

Huh?

But they don’t understand fiction…

...or do they?
Did you ask him to read a high interest novel?

But what if it’s not of interest?

How many of you enjoy a good Russian novel?

Why?

Nonfiction does not require the understanding of emotions and intent


This creates...

Deficits Related to ToM


- Difficulty explaining one’s own behaviors
- Difficulty understanding emotions
- Difficulty predicting the behavior and emotional states of others
- Problems understanding the perspectives of others
- Problems inferring the intentions of others
- Lack of understanding that behavior impacts how others think and/or feel
- Problems with joint attention and other social conventions
- Problems differentiating fiction from fact
Executive Functions

Definition: how you process, plan, and carry out a procedure to complete a task

Example: Time Management

Requires 4 significant skill areas:

1. Flexibility of Thought
   - Definition: the ability to determine the best option for a task
   - How does AS impact flexibility of thought?
     - thought shifting
     - changing an idea
     - hyper-focus on a specific area (OCD)

2. Identification of Relevance
   - Definition: determining what is important and not important to the task at hand
   - How does AS impact identifying relevance?
     - detail oriented
     - fail to see the global picture
3. Experiential Learning

- Definition: the ability to learn from and draw upon past experiences
- How does AS impact experiential learning?
  - identifying what works and what doesn’t
  - applying a skill to a new situation
  - difficult to see similarity of old situation and how to apply “old” skills to “new” situation

4. Goal Focus

- Definition: the ability to remain focused and on-task, despite presence of competing information
- How does AS impact goal focus?
  - getting stuck in details
  - getting distracted

Traits of Weak Central Coherence

- hyperliteral
  - “Hop over here to the scale.”
  - “You always…”
  - Principal’s comment “Anything else I can do for you?”
- overwhelming emphasis on details
- “But I don’t do that!”
- difficulty outlining
- difficulty summarizing
- tendency to ramble

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**Emotional Intelligence**

- The ability to perceive, identify, and manage emotions on a personal and social level.

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**Factors Limiting the Ability to Recognize Emotional States in AS**

- excessive concrete reasoning
- overuse of literal interpretation
- limited analytic skills
- limited flexibility
- limited perspective taking
- focusing on one aspect and not the whole

---

**Some Classic Examples**
Things to think about…


Emotions help…

- structure perception
- direct attention
- give access to memories
- bias judgment

Typical Coping Strategies

- social regression
- fear reaction
- somatic complaints (hypochondriasis)
- paranoid thoughts &/or feelings
- depression

- clowning to hide inefficiencies
- poor self image
- passive aggression to elicit anger
- impulsivity
Bloom’s Taxonomy

<table>
<thead>
<tr>
<th>Knowledge Dimension</th>
<th>Cognitive Process Dimension</th>
<th>Remember</th>
<th>Understand</th>
<th>Apply</th>
<th>Analyze</th>
<th>Evaluate</th>
<th>Create</th>
</tr>
</thead>
<tbody>
<tr>
<td>Factual</td>
<td>Definition: the ability to retrieve relevant knowledge from long-term memory</td>
<td>Requires the ability to: • Recognize • Identify • Recall • Retrieve</td>
<td>Typically strong areas for students with AS</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Conceptual</td>
<td>Definition: the ability to construct meaning from messages</td>
<td>Requires the ability to: • Interpret • Give examples • Infer • Compare • Explain</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Procedural</td>
<td>Definition: the ability to use a procedure</td>
<td>Requires the ability to: • Execute • Implement</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Meta-Cognitive</td>
<td>Definition: the ability to make judgments based on criteria and standards</td>
<td>Requires the ability to: • Check • Critique</td>
<td></td>
<td></td>
<td></td>
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</tr>
</tbody>
</table>

Cognitive Process Dimension: Remember

- Definition: the ability to retrieve relevant knowledge from long-term memory
- Requires the ability to: • Recognize • Identify • Recall • Retrieve
- AS impact: typically strong areas for students with AS

Cognitive Process Dimension: Understand

- Definition: the ability to construct meaning from messages
- Requires the ability to: • Interpret • Give examples • Infer • Compare • Explain
- AS impact:
  1. Executive Functions
  2. Theory of Mind
  3. Central Coherence
  4. Emotional Intelligence
  • flexibility • relevance
  • self-awareness
  • self-motivation
  • social awareness
  • social skills
### Cognitive Process Dimension: Apply

<table>
<thead>
<tr>
<th>Definition</th>
<th>Requires the ability to...</th>
<th>AS impact</th>
</tr>
</thead>
<tbody>
<tr>
<td>the ability to use a procedure</td>
<td>• Execute</td>
<td>1. Anxiety</td>
</tr>
<tr>
<td></td>
<td>• Implement</td>
<td>2. Emotional Intelligence</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• self-awareness</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• self-regulation</td>
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<tr>
<td></td>
<td></td>
<td>• self-motivation</td>
</tr>
</tbody>
</table>

### Cognitive Process Dimension: Analyze

<table>
<thead>
<tr>
<th>Definition</th>
<th>Requires the ability to...</th>
<th>AS impact</th>
</tr>
</thead>
<tbody>
<tr>
<td>the ability to break information into parts &amp; determine their relationship</td>
<td>• Differentiate</td>
<td>1. Executive Functions</td>
</tr>
<tr>
<td></td>
<td>• Organize</td>
<td>• flexibility</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• relevance</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• goal focus</td>
</tr>
<tr>
<td></td>
<td></td>
<td>2. Central Coherence</td>
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<tr>
<td></td>
<td></td>
<td>3. Emotional Intelligence</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• self-regulation</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• social skills</td>
</tr>
</tbody>
</table>

### Cognitive Process Dimension: Evaluate

<table>
<thead>
<tr>
<th>Definition</th>
<th>Requires the ability to...</th>
<th>AS impact</th>
</tr>
</thead>
<tbody>
<tr>
<td>the ability to make judgments based on criteria and standards</td>
<td>• Check</td>
<td>1. Executive Functions</td>
</tr>
<tr>
<td></td>
<td>• Critique</td>
<td>• flexibility</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• relevance</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• goal focus</td>
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<tr>
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<td></td>
<td>2. Central Coherence</td>
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<tr>
<td></td>
<td></td>
<td>3. Theory of Mind</td>
</tr>
<tr>
<td></td>
<td></td>
<td>4. Emotional Intelligence</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• self-motivation</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• social awareness</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• social skills</td>
</tr>
</tbody>
</table>

### Cognitive Process Dimension: Create

<table>
<thead>
<tr>
<th>Definition</th>
<th>Requires the ability to...</th>
<th>AS impact</th>
</tr>
</thead>
<tbody>
<tr>
<td>the ability to put elements together to form a whole, a new pattern, or structure</td>
<td>• Generate</td>
<td>1. Executive Functions</td>
</tr>
<tr>
<td></td>
<td>• Plan</td>
<td>• flexibility</td>
</tr>
<tr>
<td></td>
<td>• Produce</td>
<td>• relevance</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• goal focus</td>
</tr>
<tr>
<td></td>
<td></td>
<td>2. Central Coherence</td>
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<td></td>
<td></td>
<td>3. Theory of Mind</td>
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<td>4. Emotional Intelligence</td>
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<td>• self-regulation</td>
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<td>• self-motivation</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• social awareness</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• social skills</td>
</tr>
</tbody>
</table>
### Knowledge Dimension: Factual

<table>
<thead>
<tr>
<th>Definition</th>
<th>Requires the ability to use:</th>
<th>AS impact</th>
</tr>
</thead>
<tbody>
<tr>
<td>the information a student must know</td>
<td><em>Terminology</em> <em>Details</em> <em>Elements</em></td>
<td>Typically strong areas for students with AS</td>
</tr>
<tr>
<td>Requires the ability to have:</td>
<td><em>Classify</em> <em>Categorize</em> <em>Use principles &amp; generalizations</em> <em>Use theories, models &amp; structures</em></td>
<td></td>
</tr>
<tr>
<td>Requires the ability to:</td>
<td><em>Strategic knowledge</em> <em>Knowledge of cognitive tasks</em> <em>Self knowledge</em></td>
<td></td>
</tr>
</tbody>
</table>

### Knowledge Dimension: Conceptual

<table>
<thead>
<tr>
<th>Definition</th>
<th>Requires the ability to...</th>
<th>AS impact</th>
</tr>
</thead>
<tbody>
<tr>
<td>the inter-relationships with which elements have to allow them to function together</td>
<td><em>Classify</em> <em>Use principles &amp; generalizations</em> <em>Use theories, models &amp; structures</em></td>
<td></td>
</tr>
<tr>
<td>Requires the ability to have:</td>
<td><em>Subject specific skills</em> <em>Subject specific techniques</em> <em>Knowledge of when to use these skills</em></td>
<td></td>
</tr>
<tr>
<td>Requires the ability to:</td>
<td><em>Executive Functions</em> <em>flexibility</em> <em>relevance</em> <em>experiential learning</em> <em>goal focus</em></td>
<td></td>
</tr>
<tr>
<td></td>
<td><em>Central Coherence</em> <em>Theory of Mind</em></td>
<td></td>
</tr>
<tr>
<td>1. Executive Functions</td>
<td><em>Subject specific techniques</em> <em>Knowledge of when to use these skills</em></td>
<td></td>
</tr>
<tr>
<td>2. Central Coherence</td>
<td><em>Theory of Mind</em></td>
<td></td>
</tr>
<tr>
<td>3. Theory of Mind</td>
<td><em>Self regulation</em> <em>Self motivation</em> <em>Social awareness</em> <em>Social skills</em></td>
<td></td>
</tr>
<tr>
<td>4. Emotional Intelligence</td>
<td><em>Self awareness</em></td>
<td></td>
</tr>
</tbody>
</table>

### Knowledge Dimension: Procedural

<table>
<thead>
<tr>
<th>Definition</th>
<th>Requires the ability to...</th>
<th>AS impact</th>
</tr>
</thead>
<tbody>
<tr>
<td>the ability to know how to do something</td>
<td><em>Subject specific skills</em> <em>Subject specific techniques</em> <em>Knowledge of when to use these skills</em></td>
<td></td>
</tr>
<tr>
<td>Requires the ability to:</td>
<td><em>Executive Functions</em> <em>flexibility</em> <em>relevance</em> <em>experiential learning</em> <em>goal focus</em></td>
<td></td>
</tr>
<tr>
<td></td>
<td><em>Central Coherence</em></td>
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<tr>
<td>1. Executive Functions</td>
<td><em>Subject specific techniques</em> <em>Knowledge of when to use these skills</em></td>
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<td><em>Theory of Mind</em></td>
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<td><em>Self regulation</em> <em>Self motivation</em> <em>Social awareness</em> <em>Social skills</em></td>
<td></td>
</tr>
<tr>
<td>4. Emotional Intelligence</td>
<td><em>Self awareness</em></td>
<td></td>
</tr>
</tbody>
</table>
Knowledge Dimension: Metacognitive

<table>
<thead>
<tr>
<th>Definition</th>
<th>Requires the ability to...</th>
<th>AS impact</th>
</tr>
</thead>
</table>
| the ability to know about cognition and the awareness and knowledge of one's own cognition | • Strategic knowledge  
• Knowledge of cognitive tasks  
• Self knowledge | 1. Executive Functions  
• flexibility  
• relevance  
• experiential learning  
• goal focus  
2. Central Coherence  
3. Theory of Mind  
4. Emotional Intelligence  
• self-awareness  
• self-regulation  
• self-motivation  
• social-awareness  
• social-skills |

At what level on Bloom’s Analysis is he functioning?

- typically it will be the lower end:
  - answer rote questions
  - sequence

Higher order Bloom’s

- easier on subject material that is of high interest
- RNRI (restricted narrow range of interest)
- IDGAS (“I don’t give a ....”)
If writing becomes labor intensive, students may...

- focus more energy on the handwriting process and not the quality of the content
- produce the bare minimum
- become habituated to think in fewest words possible

Motor difficulties exist

- research documented
- neuroanatomical differences exist in cerebellums
- cellular and structural levels
- may contribute to motor difficulties

2 primary difficulties in ASD

- hypotonia
- apraxia
- both impact the individual’s ability to hold and use tools for writing

Macrographia exists

- impedes performance
- research suggests it is correlated with cerebellar anatomical abnormalities
Having to engage in handwriting is the most significant and serious impediment to academic participation for students with autism spectrum disorders in schools in North America today

(Dr. Richard Simpson, from a presentation at the ABA Conference on Autism, Boston, February 2007)

Graphomotor skills are significantly lower for students with ASD regardless of age or IQ

Impacts written expression

Deficits impact all areas of academic participation

- Fear of failure increases anxiety & stress
- Escalation of inappropriate behavior
- Concentration moves from content to task
- Many can perform other fine motor skills with ease
- Musical instruments
- Manipulating toys
- Why?
- Different neural pathways are involved

Documented via PET scans

Blood & O₂ are reduced
Reasons for not wanting to use a computer

- it’s not fair
- ADA requires equal access
- not all students need one
- high cost
  - only need word processing
  - used computer works fine
  - Alpha Smart

- word-prediction software
  - limits need for key strokes
  - examples:
    - Co-Writer 400
    - EZ Keys
    - WordQ

- speech recognition software

- visual brainstorming software

- he needs to know how to print
  - does he?
    - only need to write name, address, phone
    - digital text is the norm for society

- too time consuming
  - fluency is not the immediate goal
  - software programs teach QWERTY
Literacy is not dependent upon handwriting

- handwriting is a means of using a visual symbol system to convey a meaning to others
- literacy is linked to the thought process

What’s more important?

- to write the answer?
- to know the answer?

2 Main Behavioral Concerns

- antecedent events
- consequent events
Don’t Create Escalation

- for many individuals with social-pragmatic deficits, some actions can actually escalate the situation:
  - raising your voice
  - confrontation
  - sarcasm
  - being emotional
  - use of physical restraint

Behaviors that Reduce Countercontrol

- allowing student to perceive he has a choice
- allowing for understanding of why they are learning specific skills
- including area of interest into curriculum

Behavioral interventions to reduce escalation of rage cycle


1. Antiseptic bouncing

- designed to allow a student to “walk off” steam in a non-punitive way
2. Proximity control

- teacher simply moves closer to student
- doing so can be a calming agent
- doesn’t interrupt any class activity

3. Signal interference

- designed to redirect student to a more positive activity
- procedure:
  - teacher recognizes precursor
  - teacher uses non-verbal signal to indicate she is aware of situation
  - student responds by using pre-determined stress reducing task

4. Use of routines

- redirect to visual schedule
- especially useful when student is provided with contingency visual
  - 2 more problems then read Star Wars!

5. Redirection

- teacher directs student to focus on something other than the upsetting activity
- offer student opportunity to cartoon situation to help in determining appropriate options
6. Use of cool zone

- a predetermined location to allow student to escape stress
- should be quiet and free of distractions
- NEVER considered a time-out, punishment, or escape from class assignments

7. Acknowledge difficulty

- simply acknowledging that a task is difficult can be reassuring
- focus student on steps required for task completion

8. Go for a walk

- student and adult go for a walk
- adult listens with NO visual emotion
- child is allowed to rant without punitive measure from adult

9. S.O.C.C.S.S.

Situation-Options-Consequences-Choices-Strategies-Simulation

- Situation:
  - after the event, teacher identifies
    - who (were involved)
    - what (happened)
    - where (did it occur)
    - when (did it occur)
Options:
- teacher and student brainstorm variety of options
- do not rule out any inappropriate responses
  - "shoot him, stab him..."
- initially teacher may need to facilitate responses

Consequences:
- for every option, develop list of consequences
  - shoot him = go to jail

Choices:
- prioritize or Y-N rank
- have student determine best option based on:
  - accomplishing goal
  - social appropriateness

Strategies:
- develop a plan of action
Simulation:

- practice!
- implement problem-solving procedure
- imagery
- talking with another person about the plan
- writing it down
- role-playing

Increase the Use of the Language of Emotions

1. Expressing Feelings

- everyone has feelings
- some ways of showing feelings only escalates the problem
- how do some of our students express emotions
  - pro-social
  - anti-social

2. Controlling Anger

- many individuals react because of how they feel
- try to get students to understand that their desire is not necessarily a demand
- e.g. “Joe should not talk when I’m watching a movie” needs to be changed to “I’d appreciate it if Joe would not talk when I’m watching a movie.”
3. Sense or Nonsense?

- have student write their thought down that’s making them angry
- have student ask himself the following:
  - is it true?
  - am I exaggerating?
  - is it the end of the world?

4. Stop the Spiral

- recognizing when the spiral of negative thinking is happening allows one an opportunity to redirect
- get student to realize HE controls his emotions
- have him think of something he does well and DEFLECT his thoughts

5. Managing Accusations

- think about why you were accused
- what was the accuser thinking? (ToM)
- if true, admit it
- if not, explain
- don’t place blame

The key to success involves continually monitoring the student’s emotional state and providing supports to make school successful

And now for something completely different…
Now go and “Guinea Pig” on some students!

Thank you for attending.